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DEPARTMENT OF TRANSPORTATION

TRANSMITTAL LETTER

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Publication 371
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3/17/2023

SUBJECT:

OS-200 (5-21)

Revisions to Publication 371 - Grade Crossing Manual December 2014 Edition, Change No. 2

INFORMATION AND SPECIAL INSTRUCTIONS:

Incorporate the following revisions into the December 2014, Change No. 1, Edition of Publication 371.

These new guidelines will take effect immediately.

The following chapters and appendices of Publication 371, *Grade Crossing Manual*, were revised to incorporate guidance on the application of the "Build America, Buy America" (BABA) Act.

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- Updated for consistency with the revisions incorporated as described below.

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CHAPTER 6

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CHAPTER 7

- New Subsection 7.07.E, Build America, Buy America (BABA) Act, added.

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APPROVED FOR ISSUANCE BY:

MICHAEL B. CARROLL Acting Secretary of Transportation

BY:

Jonathan R. Fleming Chief Executive

Highway Administration



Grade Crossing Manual

Publication 371 December 2014 Edition



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Acronyms and Abbreviations

CHAPTER 1

INTRODUCTION

1.01 THE GRADE CROSSING MANUAL

A highway-railroad crossing is a special type of intersection involving joint use of right-of-way for both railroad and highway operations. A highway-railroad crossing is the intersection of a highway with a railroad's right-of-way upon which railroad tracks lie and can be at, above or below the grade of the highway. A highway-railroad crossing can also include other public utilities, such as gas, water or electric facilities. Crossings must be designed with particular emphasis on safety in consideration of the distinct performance characteristics of these two transportation modes. Highway-railroad crossings are very different from typical highway intersections, which are located completely within public right-of-way and are therefore under the jurisdiction of the Commonwealth of Pennsylvania or a local government. Highway-railroad crossings involve joint Railroad-PennDOT/Local Government occupancy of right-of-way. These crossings are under the exclusive jurisdiction of the Pennsylvania Public Utility Commission (PUC) and therefore require a specialized process to examine and resolve a wide range of legal and operational issues. These issues are often complex and can require time-consuming coordination.

A. Purpose. The Grade Crossing Manual (GCM) was developed by the Department to guide state, local, and railroad officials responsible for the administration, design, construction and operation of highway-railroad crossings in the Commonwealth of Pennsylvania. Familiarity with the procedures described in this Manual will contribute to improved efficiency in the coordination and advancement of projects involving crossings.

The guidelines and procedures presented in the GCM are intended to provide Grade Crossing personnel with specific information. Experience and sound judgment must also be used when analyzing the conditions and circumstances at each highway-railroad crossing. Because every crossing involves different considerations and constraints, modification of the procedures described in this Manual may be necessary to advance a project and to achieve project-specific objectives in a timely and cost-effective manner.

There are three main objectives of the GCM:

- 1. To expedite and streamline the coordination of highway-railroad crossing improvements through consistent application of established policies and procedures.
- 2. To assure, through Quality Control / Quality Assurance (QC/QA) Programs, that highway-railroad crossing activities are accomplished as required by federal and state regulations, as well as according to standard Department procedures.
- 3. To provide a single, comprehensive source of reliable information about highway-railroad crossing policies and procedures.
- **B.** Organization. The GCM contains ten chapters and nine appendices. This section provides a brief summary of each chapter.

Chapter 1, *Introduction*, introduces the GCM and describes its purpose, organization, and how future revisions to the manual will be processed. This chapter also provides an overview of the Department's Grade Crossing Process, roles and responsibilities of the Department staff members involved in the process, training and certification procedures, and an overview of the Department's various transportation programs.

Chapter 2, *Public Utility Commission Coordination*, identifies the PUC as a key figure in the Grade Crossing Process and provides a detailed description of the Grade Crossing Process.

Chapter 3, *Highway-Railroad Crossing Safety Project Process*, describes the first of the two types of highway-railroad crossing projects and provides step-by-step guidance for the Department's Safety Project Standard Operating Procedure for the Section 130 Safety Program and the development of projects. The Section 130

projects are typically stand-alone projects involving installation of railroad warning devices at highway-rail crossings.

Chapter 4, *Highway and/or Bridge Project*, describes the second of the two types of highway-railroad crossing projects where the highway and the railroad cross at grade or are grade separated by a bridge. The projects may involve construction or reconstruction of a bridge or construction or reconstruction of a highway. Bridge projects are generally much larger in scope than the safety projects. Highway projects may be large or small depending on the scope of work. This chapter provides step-by-step guidance for the Department's Highway and/or Bridge Project Standard Operating Procedure.

Chapter 5, *Bridge Inspections*, describes responsibilities and requirements for bridge safety inspections at highway-railroad crossings and the posting or closing of bridges under PUC jurisdiction.

Chapter 6, Billing Process, describes the Department's procedures for reimbursing Railroads for costs incurred as a result of highway-railroad crossing projects. This chapter discusses the roles and responsibilities of the Railroad, District Office, Comptroller, and the Bureau of Project Delivery, Design Services Division, Utilities and Right-of-Way Section, Grade Crossing Unit (GCU). Related issues include audits and preparation of completion certificates.

Chapter 7, *Railroads*, describes the role of Railroads in the highway-railroad crossing process, including the Department's procedures for reimbursing the Railroads for design and/or construction costs incurred on projects. Also included are discussions of Railroad's insurance requirements and the various types of agreements the Department establishes with the Railroads.

Chapter 8, *Inventory and Document Management*, describes the use, collection, and maintenance of public highway-rail grade crossing inventory information within the Grade Crossing Electronic Document System (GCEDMS). This chapter also describes the creation and document management/storage for all highway-rail grade crossing projects, which includes Section 130 Safety projects and highway/bridge projects involving Railroad facilities.

Chapter 9, At-Grade Crossing Consolidation/Closure, describes the eligibility, assessment, and investigation pertaining to crossing consolidation and/or closure determination. This chapter also covers Department incentive payments towards at-grade crossing closures.

Chapter 10, Design-Build Projects with Railroad Involvement, describes additional details pertaining to Railroad involvement and coordination procedures when involved with a Department design-build project.

Appendix A, Example Letters.

Appendix B, Standard Forms.

Appendix C, PUC Application Template.

Appendix D, Standard Operation Procedures, Flow Charts and Tracking Charts.

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Appendix F, Safety Program Guidance.

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Appendix H, Standards and References.

Appendix I, Railroad Billing Process Finance Transformation Project

C. Future Revisions and Additions to the Manual. This Manual is published in loose-leaf form to facilitate future changes and additions. The Department recognizes that the laws, regulations, and policies affecting highway-railroad

crossing procedures are continuously changing and that this Manual must be a dynamic document to remain current and useful.

Whenever the District Office or others identify modifications or additions that are required to improve current procedures, the following procedure shall be followed:

- 1. Bureau Directors and District Executives should submit suggestions in the form of revised pages in digital form to the Bureau of Project Delivery, Highway Delivery Division, Right-of-Way and Utilities Section (RWUS), Chief, for evaluation and processing. The suggestions should include:
 - a. The title and page number of the existing procedures, if applicable.
 - b. The recommended procedure and the chapter into which it should be incorporated.
 - c. The reasons for recommending modifications or additional procedures.
- 2. The Director, Bureau of Project Delivery will review the recommended changes or additional procedures and transmit copies to the various affected Bureau Directors for their comments.
- **3.** The affected Bureau Directors shall provide their comments to the Director, Bureau of Project Delivery, who will take appropriate action.
- **4.** When changes to this Manual are issued between revision cycles, these modifications or additions are made to the affected pages in this Manual, a change number will be added to the page heading in the upper right-hand corner, and the revision will be distributed by the Bureau of Project Delivery.

1.02 GRADE CROSSING PROCESS OVERVIEW

The Grade Crossing Process brings order and efficiency to a series of official interactions required to advance highway-railroad crossing improvements from planning through construction and project closeout. The Grade Crossing Process provides a systematic means of bringing the Department, the PUC, Railroads, local governments and various other affected parties together to coordinate the many technical, legal, and financial issues surrounding a highway-railroad crossing project. Simply stated, the purpose of the Grade Crossing Process is to expedite the coordination of highway-railroad crossing improvements.

The Grade Crossing Process encompasses all phases of project development from initial planning through construction and project closeout. Key elements of the process include early railroad coordination, PUC submissions and approvals, obtaining railroad permits and agreements, acquisition of railroad right-of-way, preparing crossing designs, and overseeing construction activities.

- **A.** Two Types of Highway-Railroad Crossing Projects. The Grade Crossing Process addresses the following two types of projects: *Safety Projects* and *Highway and/or Bridge Projects*.
 - 1. Safety Projects. The following are typical characteristics of Safety Projects:
 - Involve improvements to <u>existing</u> highway-railroad grade crossings.
 - Considered "stand-alone" projects, independent of the Department's Highway Design Process.
 - Classified as minor to moderately complex projects.
 - Funding is typically covered by the Section 130 Safety Program or Section 148 Safety funding.
 - Installation of warning devices (lights, gates, cantilevers or combination of these).

A detailed discussion of Grade Crossing Safety Project procedures is found in Chapter 3 and a detailed Highway-Railroad Crossing Safety Project process flow chart can be found in Appendix D, Standard Operation Procedures, Flow Charts and Tracking Charts.

- **2.** Highway and/or Bridge Projects. The following are typical characteristics of Highway and/or Bridge Projects:
 - Involve new highways or bridges or improvements to existing highways or bridges at highway-railroad
 crossings, as well as at-grade crossings within the project limits of work.
 - Classified as moderately complex to complex projects.
 - Project development follows the Department's Highway Design Process closely.
 - The highway-railroad crossing is only one of many issues to be coordinated.
 - Examples include highways at new or existing locations, and crossings at-grade, over, or under railroads.

A detailed discussion of Highway and/or Bridge Project procedures is found in Chapter 4 and a detailed Highway and/or Bridge Project process flow chart can be found in Appendix D, Standard Operation Procedures, Flow Charts and Tracking Charts.

Procedures relative to the Department design-build projects having Railroad involvement are further discussed in Chapter 10 and the design-build portions of Publication 448, *Innovative Bidding Toolkit*.

One type of hazard elimination project as identified in 23 CFR § 646.206 is a grade crossing elimination project. A detailed discussion of At-Grade Crossing Consolidations/Closure is found in Chapter 9. This chapter focuses on the identifying of at-grade crossings that have the potential of being closed and the crossing closure incentive payments available through the Section 130 program and/or by the Railroad.

- B. Key Entities. The Grade Crossing Process typically involves:
 - Department
 - PUC
 - Railroad
 - Non-carrier Utilities
 - Counties and Municipalities
 - Design Agent (Consultant, Railroad, or District Design Unit)
 - Office of Chief Counsel (OCC)

The roles and responsibilities of the Department and the Railroad are described below and in various other chapters of the manual.

Typical Division of Responsibilities								
Department	Railroad							
 Prepares designs for bridge projects Reviews design prepared by Railroad Files PUC Application Issues Construction NTP Inspects materials and construction Reimburses Railroad for documented costs Maintains highway on crossing approaches 	 Prepares designs for Safety Projects Prepares cost estimate Performs construction Certify compliance with Buy America and BABA requirements Maintains rail facilities through crossing Maintains highway crossing surface within two feet of the outside rails 							

The roles of the PUC and Railroads are described in Chapters 2 and 7, respectively.

- **C. Federal and State Regulations.** The Grade Crossing Process is driven by the following federal and state regulations:
 - 1. Title 23 (Highways), Code of Federal Regulations (CFR) Section 140, Subpart I Reimbursement for Railroad Work. The purpose of this subpart is to prescribe policies and procedures on reimbursement to the states

for railroad work done on projects undertaken pursuant to the previsions of 23 CFR Part 646, Subpart B. A copy can be found in Appendix H, Standards and References.

2. Title 23 (Highways), Code of Federal Regulations (CFR) Part 646 – Railroads. The purpose of this is to prescribe policies and procedures for railroad-highway insurance protection and advancing Federal-aid projects involving railroad facilities. A copy can be found in Appendix H, Standards and References.

Title 23 (Highways), United States Code Section 130 – Railway-Highway Crossings. Addresses the elimination of hazards at highway-rail grade crossings and provides for Federal funding to accomplish this. A copy can be found in Appendix H, Standards and References.

- **3.** Title 23 (Highways), Code of Federal Regulations (CFR) Part 635 Construction and Maintenance. Federal regulations require that all construction work must comply with the "Buy America" provisions in 23 USC §313 and 23 CFR § 635.410 and the "Build America, Buy America" (BABA) provisions in Public Law 117-58 §§ 70901-52 if it meets certain criteria (see Chapter 7, Section 7.07D and 7.07E). This includes materials used by the Railroad in conjunction with a highway/bridge project as well as Section 130 Safety Program projects.
- **4.** Title 66 Pennsylvania Consolidated Statutes, Chapter 27 Railroad. No alteration should be made to any public highway-railroad crossing without first obtaining approval (order) from the Public Utility Commission. See Chapter 2.
- **5.** Manual of Uniform Traffic Control Devices (MUTCD), Part 8 Traffic Control for Railroad and Light Rail Transit (LRT) Grade Crossings. Part 8 describes the traffic control devices that are used at highway-rail and highway-LRT grade crossings. Traffic control for grade crossings includes all signs, signals, markings, other warning devices, and their supports along highways approaching and at grade crossings.

1.03 DISTRICT OFFICE

Pennsylvania is divided geographically into eleven Engineering Districts. Each District is responsible for the planning, programming, design, maintenance, and construction oversight of the highways within its boundaries. As shown in Figure 1.1, the Districts vary in size and encompass anywhere from three to nine counties.

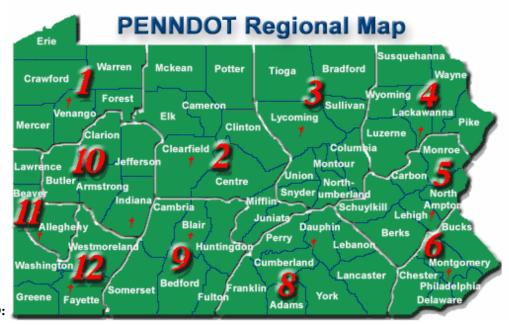


Figure 1.1, Engineering Districts

LEGEND:

3 Indicates PennDOT Engineering District.

Indicates location of District Office

- **A. District Grade Crossing Engineer/Administrator.** Within the organization of each District Office is a staff position specifically responsible for the local administration of the highway-railroad crossing process. The District Grade Crossing Engineer/Administrator (DGCE/A) is the District's designated representative for the local coordination of all grade crossing issues. In this capacity the DGCE/A coordinates with the PUC, Railroads, local government officials, and other affected parties.
- **B. District Certification.** Currently a two-tiered system is in place where certain Districts have been authorized to file applications on behalf of the Department and Central Office Grade Crossing Unit files applications for the remaining Districts. The Department has established a certification training program to prepare District personnel to file applications with the PUC. It is recommended that the District have two people trained and certified to avoid decertification of the District in the event of staff adjustments. It is the Department's intention to have each District certified to file their applications to avoid any undue delay in project delivery.

Upon each District staff member's successful completion of the Grade Crossing Certification Training and completion in the process with obtaining "Authorization for Filing Applications with the Public Utility Commission" (refer to Section 1.03D), the following must occur prior to that individual filing PUC applications.

In order to assure that procedures, process, and format for filing the PUC applications are being followed, each certified District staff member is required to submit their first 3 PUC applications to the Central Office Grade Crossing Unit (CO GCU) for review and comment prior to filing the application(s) with the PUC and all parties or record. The following applicable documentation shall be submitted to the CO GCU electronically:

- "Draft" PUC Application including the:
 - Verification Statement.
 - Certificate of Service.
- Project Location Map.
- Documentation from local municipalities (resolution, etc.) should the crossing be on a local road (Section 130 projects).
- MPMS number.
- Available photographs of the crossing.
- Plans which you will be attaching as Exhibits.
- Additional supporting documentation as outlined in Chapter 3, Section 3.05G.

Upon completion of the application review, the CO GCU will provide the District with any necessary corrections to the draft PUC application electronically. Once all necessary corrections have been made, the District may proceed with formally filing the PUC application as outlined in Chapter 3, Section 3.05H.

C. Maintain Certification. In order for each District staff member to maintain their certification and authorization to file PUC applications on behalf of the Department, he or she must prepare and submit at least one application to the PUC per calendar year. Should this not occur, the CO GCU will send out a notification letter to the District informing them of their de-certification. Re-certification or certification to file PUC applications requires attending and successful completion of the Grade Crossing Certification Training outlined in Section 1.03B.

Continued District certification to file PUC applications will also involve periodic reviews by the CO GCU of filed PUC applications by the District. This will be for both Section 130 Safety projects and Highway/Bridge projects involving railroad facilities. The following is a checklist of items the CO GCU will be using in order to conduct their reviews:

- Assuring proper use and format of caption on the application.
- Reviewing the general format of the application.
- Assuring that the appropriate individuals are listed on the Certificate of Service listing.
- Comparing funding information and project description on the application to what is contained in MPMS.
- Assuring that all applicable Exhibits are referenced in and attached to the application.
- Assuring use of appropriate paragraph 3 in the application.

Upon such reviews the CO GCU will inform the District of their findings and, if necessary, identify any required remedial action.

- **D.** Authorization for Filing Applications with the Public Utility Commission. The following documentation must be signed by the District Executive and filed with the Director, Bureau of Project Delivery, to obtain authorization for District personnel to file applications with the Public Utility Commission (PUC).
 - 1. Signature delegation authority was extended to Assistant District Executives. A form letter requesting authorization for identified staff to file PUC applications (see Appendix A, Example Letters).
 - **2.** Standard Form STD-275, Signature Authorization (see Figure 1.2, Standard Form STD-275, Signature Authorization below).

COMMONWEALTH OF PENNS STD-275	SYLVANIA REV. 8-96					PRINCIPAL
		SIGNATURE A	UTHORIZATION		x	DELEGATION
See Managemen	t Directive 205.4 fo	r instructions.				REVOCATION
AGENCY					EFFECTIVE DATE	
Penni	DOT District	_				
Authority to sign of	documents listed be	low is delegated to or revoked from				
	NAME (TYPED)	District Grade Crossing Engine	er/Administrator	(John Doe	e)	
		1				
	SIGNATURE IN IN	(SIGN) NK:]
DOCUMENT/ FORM NO.*		TITLE	DOCUMENT/ FORM NO.*		TITLE	
	PUC Applicati	on				
SIGNATURE IN IN	DATE					
*DO NOT LIST FO	RMS OR OBTAIN S	IGNATURE FOR A REVOCATION.				

Figure 1.2, Standard Form STD-275, Signature Authorization

This authorization also allows Districts to approve Railroad bids and to issue Notices to Proceed with Construction to Railroads. See Chapter 3, Sections 3.06D and 3.07A.

1.04 DISTRICT GRADE CROSSING ENGINEER/ADMINISTRATOR'S MEASURES, ROLES, AND RESPONSIBILITIES

As described below, the DGCE/A's involvement extends across all phases of highway-railroad crossing project development from initial planning through final design and construction. The role of the DGCE/A includes serving as Project Manager on Safety Projects and assisting the Design Project Manager on Highway and/or Bridge Projects involving railroad facilities. The following is a summary of the railroad coordination measures and responsibilities of the DGCE/A on typical highway-railroad crossing projects:

- **A.** Railroad Coordination Measures. To ensure compliance with the latest editions of 23 CFR and this Manual on all Department projects involving railroad facilities, each District is required to develop the following mandatory measures for their respective DGCE/A:
 - **1.** GCEDMS is being used for all active and future projects involving railroad facilities. See Chapter 8 for additional details and procedures.

- 2. The preparation and execution of all railroad construction reimbursement agreements are in compliance with 23 CFR § 646.216 and/or Chapter 4, Sections 4.07A and 4.07B, and documented accordingly in GCEDMS.
- **3.** Applicable Right of Entry (ROE) Permit special provision is contained within the Engineering and Construction Management System (ECMS) contract. The ROE permit is signed by the contractor, and not by the Department (DGCE/A). See 23 CFR § 646.216 (e)2(iii) and Chapter 4, Section 4.06E.
- **4.** All required railroad documentation, for review and timely approval of the bid package, was posted in the project development checklist and/or special provisions in the ECMS contract in accordance with Chapter 4, Section 4.06E and 23 CFR § 646.216 (d) and (e), and documented accordingly in GCEDMS.
- **5.** Right-of-Way plan submissions, when appropriation of railroad property is through the PUC, was done in compliance with Chapter 4, Sections 4.04 and 4.05, and documented accordingly in GCEDMS.
- **6.** Railroad Certification Compliance Check List in Appendix B was completed for all Federal-Aid projects in accordance with 23 CFR § 635.309 (b) and Chapter 4, Section 4.06B, and documented accordingly in GCEDMS.
- 7. D-4279A Railroad Crossing Data for Contractor form in Appendix B was completed and included in the ECMS contract in accordance with Chapter 4, Section 4.06C and 4.06E, and documented accordingly in GCEDMS.

Continued non-conformance from the Department could result in non-participation from FHWA or repayment of federal funds on projects incurring additional costs due to untimely completion or non-compliance of railroad coordination activities.

- **B. Project Costs.** Estimating, monitoring, and controlling project costs are critical project management functions on all Department projects. On grade crossing projects, the DGCE/A estimates costs, coordinates cost sharing between the affected Railroad and local government, monitors design development costs, and compares design cost estimates to actual construction costs. In the event of cost overruns, the Railroads and the DGCE/A must justify the cost overruns based on Program Management Center guidelines, Comptroller requirements, and the need for a supplemental agreement.
- **C. Project Administration.** The project will generally be under the control of the DGCE/A and will be completed according to the Standard Operating Procedures (SOPs), which are presented in Appendix D. The SOPs are guidelines for Department staff to identify the "How," "What," "When," and "Where" of a design process, such as the Grade Crossing Process.
- **D.** Construction. There are four different methods by which railroad work can be performed at a crossing.
 - 1. Force Account Work used mostly by the major railroads. Work is performed by the Railroad's own forces.
 - 2. Bidding used mostly by the Short Line Railroads where their own forces cannot perform the work.
 - 3. Continuing Contracts where the work is performed by an exclusive contractor for the Railroad.
 - **4.** Lump Sum where the Railroad agrees to perform the work at an agreed-upon price.
- E. Railroad Coordination. All highway-railroad crossing projects require close coordination with the Railroads.
 - 1. The DGCE/A should be prepared to address the following issues at various stages of project development:
 - Cost estimates
 - Permits and Agreements
 - Design consultant approval
 - Design Notice-to-Proceed
 - Insurance requirements
 - Right-of-Way Acquisition

- Construction Notice-to-Proceed
- Bidding Document Approval, if required
- Bid Approval, if required
- Construction Inspection
- Payment of Railroad Bills
- Final Inspection
- **2.** Railroad Coordination/Annual Work Plan Meeting. The DGCE/A should conduct a Railroad Coordination/Annual Work Plan Meeting. The purpose of the meeting is to improve communication, coordination and cooperation between the Department and the Railroads.

The meeting should be held annually with a recommendation that the meeting is held in the first quarter of the calendar year. The invitees to the meeting should include the "decision makers" from each railroad operating within the District's geographic borders. The Utilities and Right-of-Way Section Chief, PUC Rail Safety Engineering Section Supervisor, Assistant Counsel in Charge-Utilities Section, Bureau of Rail Freight, Ports and Waterways Director, District Intermodal Coordinator and MPO/RPO Intermodal Coordinator should be notified of the meeting and invited to attend along with anyone else the District deems appropriate.

Topics of discussion should include, but are not limited to, the following:

- The District's annual work plan of projects that are under study, in design, or are being advertised for
 construction that have highway-railroad crossings within the limits of the highway project. (District
 personnel with specific information about a project(s) that will impact crossings and railroad road
 operations should be encouraged to attend as well.)
- The Section 130 Program.
- The Railroad's annual maintenance and rehabilitation program.
- The District's annual maintenance program and any upcoming highway or bridge projects that may affect the Railroads.

The outcome of these meetings will be improved communication and coordination between the Department and the Railroads resulting in adequate lead-time and will assure project letting schedules are met.

- **F. PUC Coordination.** The DGCE/A is directly involved in all interactions with the PUC, including the preparation and filing of PUC Applications, attending PUC field investigations and conferences, preparing testimony, testifying at PUC hearings, and attending final inspections.
- **G. Utilities Coordination.** Non-carrier utilities having facilities in the crossing area must be made parties to the PUC proceeding. The DGCE/A must coordinate the project development with the District Utility Relocation Unit, as needed.
- **H. GCEDMS.** The use of GCEDMS is mandatory by the DGCE/A for the collection, maintenance, and updating of their DOT Crossing Inventory Records for all existing open public railroad crossings and for the daily operations, management, data entry, and document storage for all active and future Department projects involving railroad facilities. Chapter 8 provides additional guidance and procedures to be followed.
 - 1. Record Retention. The Department has established a retention schedule for all records related to all railroad-highway grade crossing projects and Public Utility Commission actions related thereto. Records contain project correspondence, hearing documentation, state-railroad agreements, PUC Orders, Secretarial Letters, forms, or other project documentation as outlined in the latest edition of this Manual in accordance with standard operating procedures. The Districts are responsible for maintaining all project records in GCEDMS and retaining the original state-railroad agreements for an additional seven (7) years beyond the record retention requirements set forth in the October 1, 2009 edition of 49 CFR § 18.42, "Retention and access requirements for records".
 - 49 CFR § 18.42 states records must be retained a minimum of three (3) years from the issuance of the project's final expenditure report or, in the case of any litigation, claim, negotiations, audit, or other action involving the records has been started before the expiration of the 3-year period, the records must be retained until completion of the action and resolution of all issues which arise from it, or until the end of the 3-year period, whichever is greater.

Therefore all project records will be retained for a minimum of ten (10) years from the issuance of the project's final voucher or, seven (7) years beyond completion of all action(s) and resolution of all issues, whichever is later. PUC Orders/Secretarial Letters that address maintenance and inspection responsibilities shall be kept beyond the record retention schedule.

- I. ECMS Documentation. In order to ensure compliance with 23 CFR and this Manual, all Department projects advertised and let through ECMS require applicable railroad documentation to be provided to the District Project Manager by the DGCE/A for inclusion in the ECMS contract. This includes all supporting railroad documentation to be included in the Project Development Checklist (PDC), railroad special provisions, and if necessary, any project specific special provisions as further outlined in Chapter 4, Section 4.06E.
- **J. Railroad Reimbursement Agreements.** The DGCE/A responsibilities and procedures pertaining to the preparation, processing for execution, and final routing of the executed State-Railroad reimbursement agreements are outlined in Chapters 3, 4 and 7. The DGCE/A is responsible to ensure that all State-Railroad reimbursement agreements are in compliance with 23 CFR § 646.216 (d)(2) and/or Chapter 4, Section 4.07.
- **K.** Railroad Certification. A Railroad Certification must be issued for <u>all</u> Department projects. Chapter 4, Section 4.06B outlines the process to be followed by the DGCE/A in order to receive a Railroad Certification for Federal Oversight, State Oversight, and 100% State Projects with or without railroad involvement.
- **L. Traffic Control.** Traffic control will be required in most of the highway-railroad crossing projects. The DGCE/A must work with the District Traffic Unit in the preparation/review of traffic control plans and other traffic-related issues.

To ensure consistency across all Districts in the treatment and development and implementation of detours relating to both at grade and grade separated highway-rail crossing the following policy has been developed:

- 1. Federal Grade Crossing Program (Section 130 Program). The design and implementation of detours under the Federal Grade Crossing Program (Section 130 Program) are eligible for federal funding. Therefore, the District may design and implement detours for railroads with the work activity being charged to a project number that utilizes Section 130 funds.
- 2. Railroad Maintenance Activities. The Districts should not design or implement detours for the Railroads routine maintenance activities. This work performed by the Railroad includes line and grade adjustments, surfacing, undercutting and rehabilitation and replacement of surfaces at highway-rail crossings.
- **3.** Design and Implementation of Detours. The District must design and implement the detour when the PUC has included it in the Secretarial Letter or PUC Order as the responsibility of the Department.

Transportation Improvement Projects such as bridge replacement/rehabilitation and highway reconstruction/rehabilitation that have a highway-rail crossing within or adjacent to the project should be considered as candidates to work with the Railroad to design and implement a detour for the Railroad when they commit to perform their highway-rail crossing work concurrent with the Department's project. Another consideration is when the Railroad is removing a highway-rail crossing and restoring the roadway.

In order to ensure consistency across all Districts, when consideration is being given to designing and implementing a detour for a railroad concurrence should be requested from the Chief of the Right-of-Way and Utilities Section in the Bureau of Project Delivery. A submission should be made that includes what the benefits are to the Department and the Railroad, nature of the work involved and the estimated cost.

- **M.** Construction Plans. Final construction plans for the area within the PUC's jurisdiction must be submitted to the PUC for approval. Concurrent with the submission to the PUC, the plans must be submitted to all the parties of record involved for review. Bids for the project cannot be opened until the final plans have been approved by the PUC.
- **N. Quality Control/Quality Assurance.** The DGCE/A is responsible for the completion of the quality control matrix and the CO GCU is responsible for the completion of the quality assurance matrix. See Appendix D for QC/QA matrices.

- **O. Construction Inspection.** All railroad projects must be inspected at least 30% of the time during construction. The DGCE/A is responsible for performing or having inspection performed by a construction inspector. See Chapter 3, Section 3.07F for more information.
- **P. ADA Compliance.** All railroad projects shall be constructed in compliance with all applicable ADA requirements set forth in Publication 13M, Design Manual Part 2, *Highway Design*, Chapter 6, Pedestrian Facilities and the Americans with Disabilities Act and Publication 72M, *Roadway Construction Standards*, RC-67M. If the proposed project involves disturbing the "Crossing Area" then it will need to be brought into compliance with current ADA standards. If the disturbed area is elsewhere along the sidewalk, not in the "Crossing Area", then compliance with current ADA standards is not required.
- **Q. Right-to-Know Law (RTKL).** The Pennsylvania Right-to-Know Law (RTKL) provides a mechanism for the public to request records held by public agencies, including the Department. Persons verbally requesting information about the RTKL should be referred to the Department's Web Site or to the following address link:

http://www.dot.state.pa.us/Internet/Bureaus/pdBOS.nsf/RTKLHomePage?OpenFrameset

This site provides current information on the Department's policies and procedures relating to the RTKL.

Any correspondence received referencing an open records law, including the "Freedom of Information Act" (FOIA), or even a simple request for records in writing, should be treated as a RTKL request and forwarded to the resource account maintained for RTKL requests (PENNDOT-RightToKnow@pa.gov).

A copy of Management Directive 205.36, which contains detailed Commonwealth policies and procedures on the "RTKL", can be accessed from the site listed above.

Under the RTKL, the Department must respond to a request within five (5) business days. To ensure that the Department is in full compliance with the RTKL, the DGCE/A must cooperate, in a timely manner, with the District RTKL coordinator. If the DGCE/A receives a RTKL request directly, it is important to immediately bring the request to the attention of the RTKL coordinator. Certain documents, relevant to highway-rail crossings, are exempted from the RTKL, including but not limited to: police accident reports, exempt under the Vehicle Code, 75 Pa.C.S. § 3751; and, pursuant to federal law, 23 U.S.C. § 409, any "reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings."

In general, if there is a concern that there is sensitive information, facts or circumstances in regard to a particular request that requires further review, be sure to convey that information to RTKL personnel.

It is essential that staff do not share their opinions or thoughts or advice when any person requests information relating to one or more pending citations. Department staff may provide non-attorney requestors with specific sections of State Highway Law or Regulations relating to their inquiry. Attorneys should always be referred to the Office of Chief Counsel.

Requests from the media should be directed to the Community Relations Coordinator.

1.05 DEPARTMENT CENTRAL OFFICE ROLES

A. Utilities and Right-of-Way Section, Grade Crossing Unit. The CO GCU establishes policies and procedures and provides assistance and guidance to the Districts in highway-railroad crossing matters. It is also responsible for Program Management of the Section 130 Safety Program. As part of the Section 130 program management, the CO GCU is also responsible for collecting applicable information from the Districts for preparation and submission of an annual report on the railway-highway crossings program to the FHWA. This report, as required by 23 U.S.C. Section 130(g) is due to the FHWA division office by August 31st of each year. The CO GCU's roles and responsibilities are described throughout the manual and in SOP matrices. See Appendix D for SOP matrices. In addition, the CO GCU conducts regular Quality Assurance (QA) checks on active Department highway-railroad projects. This includes conducting annual visits with each District. The annual District visit involves a QA of four or more active Department projects involving railroad

facilities randomly selected by the CO GCU representative. The project reviews will include review of all project paper files, data and documentation stored and maintained in GCEDMS, and all railroad documentation in ECMS. A written summary of the findings will be discussed and provided to the DGCE/A.

- **Center for Program Development and Management.** The Center for Program Development (Program Center) is responsible for fiscal management of Safety Improvement Projects. The DGCE/A and District Programming Manager must work closely with the Program Center in the development of the Safety Improvement Program. The program is updated every two years. See Chapter 3, Section 3.02.
- **Department Office of Chief Counsel.** The Office of Chief Counsel (OCC) is responsible for legal aspects of the projects. The DGCE/A and the CO GCU must work closely with the OCC, especially if a hearing is to be held or other legal issues are involved.
- D. Policy, Procedure, Regulations, and Applicable Laws. The Chief of the Utilities and Right-of-Way Section oversees the CO GCU and is responsible for administration of state and federal policies and procedures.

1.06 PROJECT PLANNING, PRIORITIZATION AND PROGRAMMING

No discussion of the Grade Crossing Process would be complete without a brief overview of the state's transportation program, and how funding is earmarked for projects involving highway-railroad crossing improvements. Also refer to Chapter 3, Section 3.02 and Publication 10, Design Manual Part 1, Transportation Project Development Process, Chapter 5, Pre-TIP and TIP Program Development Procedures Overview.

- A. Planning. Transportation planning is conducted pursuant to state, as well as federal laws and requirements, transportation funding legislation and the state budget process. State law governing land use, which is clearly related to transportation, is the sole responsibility of county and municipal officials. The activities of transportation planning, programming and project development conducted at the federal, state and regional/county/local levels are different, but highly interrelated and occur according to prescribed sequences and cycles.
 - Management and Monitoring Systems. Management and monitoring systems allow the Department to track the condition of the existing transportation network and obtain information for the development of transportation plans and programs at both the state and local/regional level. The management and monitoring systems include a variety of areas such as pavement management, bridge management, traffic congestion management, and highway safety.
 - Funding Considerations. Federal funding is initially authorized in a major transportation act. Each year, federal funding is appropriated to the individual states in the annual appropriations acts by the United States Department of Transportation. In addition, the appropriations acts establish annual obligation limitations, which are the overall amount of funding that each state can use in a given year. The Center for Program Development and Management (Program Center) develops multi-year and annual obligation plans which guide the Department's use of federal funds during the periods covered.
- **Prioritization and Programming.** The Department and its many partners (State Transportation Commission, FHWA, Federal Transit Administration (FTA), Metropolitan Planning Organizations (MPOs), Rural Planning Organizations (RPOs), and others) jointly develop general and procedural guidance and financial guidance for the update of the 12-Year Transportation Program and the Statewide Transportation Improvement Program (STIP).
 - 1. Twelve-Year Transportation Program. Pennsylvania's Twelve-Year Transportation Program (12-Year Program) is the official program for maintaining and improving Pennsylvania's Transportation System. Every two years the Department, the State Transportation Commission, Metropolitan Planning Organizations (MPOs) and Rural Planning Organizations (RPOs) cooperate in reviewing and updating the program. The updated program is then readopted by the State Transportation Commission.
 - The Highways and Bridges Program. Of the five transportation mode classifications in the 12-Year Program, the one that funds the vast majority of highway-railroad crossing improvements is the Highways and Bridges Program. Refer to the 12-Year Program for more information about the other classifications.

The Highways and Bridges Program consists of the following six component programs:

- **a.** Interstate, Expressway, and Highway Restoration Programs. This program involves the restoration of all classes of highways, including interstates and limited access expressway.
- **b.** Bridge Program. This program involves the rehabilitation or replacement of bridges on the state and local highway systems. Specific projects are programmed based on project need, the availability of funding, priorities and other criteria. Funding targets are established based on need, information obtained from the Bridge Management System (BMS2) and other criteria.
- c. Safety and Mobility Program. This program encompasses a number of types of improvements including:
 - Safety improvements at high crash locations or along major corridors.
 - Highway-railroad crossing improvements.
 - Congestion reduction projects.
 - Transportation related air quality initiatives.

These projects are identified by the Districts, MPOs, RPOs and the Department's Safety and Congestion Management Systems (SMS and CMS).

- **d.** Transportation Service and Support Projects. This category includes welcome centers, rest areas, weigh stations, transportation enhancements, and other miscellaneous types of improvements.
- **e.** Major Projects. These projects involve the major widening and reconstruction of key segments of state highway or new construction on new alignment. Specific projects are identified to use all available funding. Funding is a mix of federal funds, state funds, and some local funding. Special federal funds earmarked to specific projects are also included in the funding for this category of improvements.
- **f.** Intermodal Projects. This category includes improvements that serve as a transition from one mode to another. Examples include park and ride lots served by transit, access to airports or port facilities, and transit improvements funded with flexed highway funding.

In summary, the Department's Highways and Bridges Program consists of six component programs and provides funds for the vast majority of highway-railroad crossing projects. There are two distinct types of crossing projects: Safety Projects and Highway and/or Bridge Projects involving railroad facilities. Safety Projects are typically funded by the Section 130 Safety Program. Highway and/or Bridge Projects involving railroad facilities are typically funded by the Bridge Program and/or as part of Major Projects.

1.07 OPERATION LIFESAVER

Operation Lifesaver is a national, non-profit education and awareness program dedicated to ending tragic collisions, fatalities and injuries at highway-railroad grade crossings and on railroad right-of-way. In order to accomplish this mission Operation Lifesaver promotes the 3 Es:

- Education Operation Lifesaver strives to increase public awareness about the dangers around the rails.
 The program seeks to educate both drivers and pedestrians to make safe decisions at crossings and around railroad tracks.
- Enforcement Operation Lifesaver promotes active enforcement of traffic laws relating to crossing signs and signals and private property laws related to trespassing.
- Engineering Operation Lifesaver encourages continued engineering research and innovation to improve the safety of railroad crossings.

For more information about Operation Lifesaver, visit their website at www.oliofpa.org.

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CHAPTER 2

PUBLIC UTILITY COMMISSION COORDINATION

2.01 INTRODUCTION

No alteration shall be made to any public highway-railroad crossing without first obtaining approval from the Public Utility Commission (PUC).

The PUC has exclusive jurisdiction over the construction, relocation, suspension and abolition of public highway-railroad crossings. 66 Pa.C.S. §§ 2702-2704.

- A public highway-railroad crossing can be either at grade, above or below the grade of the tracks of a railroad, including tunnels below public roadways.
- The PUC may order immediate alteration, improvement or suspension to provide for public safety.
- The appropriation of property for any crossing improvement is within the PUC's authority.
- Costs associated with the construction, relocation, alteration or abolition of a crossing may be allocated
 among the parties as determined by the PUC. The PUC may also assign maintenance responsibilities for
 a crossing. Costs and maintenance can only be assigned to an incorporated Railroad or a public entity
 (such as the Department, a county, a local municipality, non-carrier public utility, municipal authority, or
 non-profit organization which demonstrates financial responsibility (such as a trail group)).

Only when a District Grade Crossing Administrator/Engineer (DGCE/A) and/or Central Office Grade Crossing Unit (CO GCU) have researched and determined that they do not have a historic PUC Order/Secretarial Letter within their Department files are they to make requests for such historic PUC Orders/Secretarial Letters through the OCC.

For initiation of PUC proceedings, project-related information is developed in three steps: Step 1, Step 2, and Step 3 Submissions.

2.02 COORDINATION PROCEDURES

- **A. Step 1 Submission.** The primary objective of this submission is to provide sufficient information to:
 - Determine if PUC action is necessary.
 - Determine the tentative jurisdictional limits to be proposed to the PUC.

The submission, prepared by the highway-bridge Project Manager, shall be made to the DGCE/A or to the Bureau of Project Delivery, Highway Delivery Division, Right-of-Way and Utilities Section (RWUS), CO GCU, and shall include one set of right-of-way plans identifying the crossings of any railroad tracks within the project area and clearly indicating the proposed construction.

Based on the scope of the project, the DGCE/A and/or the CO GCU will determine if PUC action is required, and if a PUC Application will have to be filed. If an Application has to be filed, a Step 2 Submission will be required.

A PUC Application is usually required in the following instances:

- 1. The change of alignment, grade, or width of the crossing.
- 2. The upgrading or downgrading of the crossing surface, such as:
 - Timber and asphalt surface vs. a high-type crossing (concrete or rubber) surface,
 - Rubber rail seal and asphalt surface vs. high type crossing surface,
 - High type (rubber) surface vs. high type (concrete) surface.

- 3. Any work performed at a public crossing that will require the relocation of non-carrier utility companies' facilities.
- 4. Any work performed at a public crossing that will require the installation or relocation of the railroad crossing warning devices including any upgrade or downgrade of said warning devices.
- 5. The change in railroad crossing warning device circuitry, i.e. standard circuits vs. motion sensors (highway crossing predictors).
- 6. The installation of non-carrier utility facilities within a public crossing (wire and pipe installations).
- 7. Traffic signals with railroad pre-emption.

A PUC Application will generally <u>not</u> be required in the following cases:

- 1. The replacement of the crossing surfaces in kind as long as non-carrier utility companies are not required to relocate their facilities and the alignment, grade, and width of the crossing is not changed.
- 2. The replacement of non-carrier utility's facilities in kind provided the vertical clearance is greater than PUC clearance requirements. Excludes replacement of bored or jacked-in-place casing and open trench installation.
- 3. The replacement of railroad crossing warning devices and/or circuitry in kind.
- 4. Replacement of advance warning signs and markings in kind.
- **B.** Step 2 Submission. The primary objectives of the Step 2 submission are to:
 - 1. Acquire sufficient data to file an Application with the PUC.
 - 2. Prepare for a PUC field conference.

The submission shall consist of two set of plans. The names and addresses of all utilities or municipal authorities, County(ies), and local governments (townships, boroughs, cities) within the tentative jurisdictional area are to be listed in the transmittal letter of the Application. Information needed in Appendix C shall be provided (see Chapter 3, Section 3.05G).

The plans must include the following for the area within the tentative PUC jurisdiction:

- 1. Location map
- 2. Index sheet (showing limits of work)
- 3. Typical roadway sections (in the vicinity of the crossing)
- 4. Highway plan and profile sheets (at least 500 ft on each side of the crossing)
- 5. Preliminary structure drawings (Department approved Type, Size and Location (TS&L) Plan) of any railroad or highway bridge which include the following horizontal and vertical clearances, if applicable:
 - a) Existing
 - b) Proposed
 - c) PUC minimum clearance requirements
 - d) Railroad minimum clearances meeting criteria provided on the D-4279 design form

On highway-railroad crossings, at-grade, the existing elevation of each rail and the proposed finished grade of the highway at each rail must be indicated on the plan. For grade separations, the minimum vertical and horizontal clearances must be shown for the proposed structure. Should any exceptions to the minimum PUC clearances be sought, a special process must be followed. Under Pennsylvania law, only a Railroad can request exemptions to the PUC's minimum clearances. See 52 Pa. Code § 33.127 (b). Therefore, the project must be discussed with Railroad company officials to ensure their acquiescence in the request for clearance exemptions. Copies of correspondence with the Railroad on this issue, including, but not limited to, memorandums of meetings, must be submitted with the other data to the RWUS or District Office and kept in the project files.

To obtain PUC clearance exemption approval, the PUC will accept a letter from the Railroad consenting to the exemption from the PUC minimum clearances. This letter must be attached to the Department's Application as an exhibit.

A definite statement must be secured from the Railroad concerning the future status of operations of the track(s). Form D-4279 Railroad Crossing Data For Design (see Appendix B, Standard Forms) must be forwarded, early in the preliminary engineering phase of the highway/bridge project, by the appropriate District personnel, to each involved Railroad requesting the Railroad(s) to complete and return the form to the District for the facilitation of the design.

Also, Form D-4279-A, Railroad Crossing Data For Contractor, (see Appendix B, Standard Forms), must be forwarded during final design with accompanying preliminary construction drawings by the appropriate District personnel to each involved Railroad requesting the Railroads to complete and return same for inclusion in the construction proposal. Both completed forms shall accompany the submission of the Plans, Specifications, and Estimates (PS&E) package to the Central Office Contract Management Section.

An Application will be filed with the PUC either by the CO GCU or the District (if certified). The PUC will issue an Order/Secretarial Letter approving the project subsequent to a field conference when there is agreement among the parties regarding the project. If there is disagreement between the parties about the scope of the project, the proceeding will be set for a hearing and the issues resolved by a PUC Administrative Law Judge. A hearing may also be held when allocation of costs and/or maintenance responsibilities are unresolved.

Filing a PUC Application is one of several possible ways of initiating a PUC action. Others include informal meetings, formal complaints, or PUC-initiated investigations. Although sometimes necessary, these methods may result in adversarial proceedings. Chapter 2, Section 2.05 highlights the type of dockets that can be assigned to a project.

The party who files the Application usually agrees to be responsible for most, if not all, of the work and the Application process does not result in an adversarial proceeding. With complaints, one party seeks to have another party (or parties) bear the costs and share the maintenance responsibilities associated with the crossing. An investigation occurs when it is unclear as to which party has maintenance responsibility for the crossing.

In most highway-railroad crossing projects the DGCE/A prepares the PUC Application (see Appendix C and Chapter 3, Section 3.05G) after discussing the proposed improvements with the affected railroad and utilities, obtaining the necessary railroad cost estimates, and assembling the necessary plans. The CO GCU or the DGCE/A, if certified, then files the Application with the PUC. A courtesy copy of the Application with Exhibits is to be sent to either the District Executive or Chief of RWUS (depending on whether the District or the CO GCU is filing the Application), OCC, and the Supervisor of Rail Safety Engineering Section. For additional procedures pertaining to filing and routing of a PUC Application refer to Chapter 3, Section 3.05H.1.

For PUC eFiling procedures refer to Section 2.06.

1. Checklist for Application Process.

- (1) PMC approved
- (2) MPMS number assigned
- (3) DOT Number (if available, previously indicated as "AAR Number")
- (4) 4232 approved (Design)

- (5) 4232 approved (Construction) (ECMS number assigned)
- (6) Utility list
- (7) All Parties of Record
- (8) Step 2 Data
- (9) Right-of-Way for Railroad/highway
- (10) Agreements Township/Railroad, other
- (11) Railroad owner/operator contacted (Form 4279 and 4279A)
- (12) ADT, Percent of Trucks
- (13) Estimate of project cost
- (14) Application, Verification and Certificate of Service signed and cover letter
- (15) Application filed
- (16) Either the DGCE/A or the CO GCU Engineer who performed this check are to date and note missing data. Signature required. See Appendix D, Standard Operating Procedures, Flow Charts and Tracking Charts.
- (17) Diagnostic Review form completed
- (18) Date of Diagnostic Field Conference
- (19) Right-of-way damages waived by Railroad, need for PUC appropriation or amicable settlement. Request for metes and bounds descriptions of railroad property for all Railroads.
- (20) Hearing required (yes/no) If yes, notify CO GCU.
- 2. PUC Field Conference (Diagnostic Field View). Once an Application has been received, the PUC will hold a field conference. PUC is responsible for scheduling and notifying parties of record, as determined by the applicant, of the date, time, and place of the field conference. The DGCE/A and/or the CO GCU, attends the field conference along with representatives of the parties of record. The field conference provides an opportunity for the parties to discuss the issues and safety concerns surrounding the crossing, and attempt to reach an amicable resolution regarding work, maintenance and allocation of costs. If a resolution is achieved, the PUC issues an Order/Secretarial Letter. Documentation of the diagnostic team recommendations must be indicated on the Diagnostic Analysis Form for all projects involving an at-grade highway-rail crossing (see Appendix B, Standard Forms).

For Applications not filed by the Department the DGCE/A needs to request specific Maintenance and Protection of Traffic (MPT) at the field conference, in order to ensure that the parties involved obtain Department approval for MPT on the project. In addition, the Department must also request that MPT plan be submitted to PUC along with general construction plans. The Department will then have the chance to object to the MPT plans if they are inadequate, in the same way that the Department, or other parties, may object to construction or signal plans. The Department may even request that PUC include an ordering paragraph requiring that the Department approve any and all MPT plans prior to construction.

Outstanding issues are not always resolved at the PUC field conference. In such cases the PUC will schedule the matter for a formal hearing. The DGCE/A will promptly notify the OCC and the CO GCU that a resolution could not be reached and that a hearing is to be scheduled. In these cases, open communication and cooperation between OCC and the CO GCU and/or the DGCE/A is essential.

Upon request, the PUC will schedule an informal field conference at a crossing to discuss issues and possible solutions without a formal action or before any Applications have been filed or any formal actions are initiated. This can be requested by the DGCE/A. An email or letter to the Supervisor of the PUC's Rail Safety Engineering Section will suffice to request an informal field conference.

- **C. Step 3 Submission.** If a hearing is to be held, the Department must be prepared to offer all relevant information at the hearing to support its position. If the Department does not provide sufficient evidence to support its position, the Application could be denied by the PUC and the Department will not be able to proceed with the project as planned. Normally, the PUC will issue a series of questions, commonly referred to as the "Questions and Procedures" (Qs & Ps) requesting certain information from the parties, including the Department. The preparation of information for a hearing is not limited to the Qs & Ps provided by the PUC and may include the following:
 - (1) Project location

- (2) Scope of work proposed, including plans and cost estimates (depending upon the stage of the project when hearing is scheduled, the plans may not be final)
- (3) Purpose/reason for the project
- (4) History of project development
- (5) Necessary property acquisition, including plan sheets and property descriptions if the project has progressed to that point in development (property descriptions are more fully discussed in Section 2.03)
- (6) Detour plans
- (7) Work to be performed by the Department and costs to be assumed by the Department
- (8) Work and cost that should be borne by other parties
- (9) Maintenance to be performed by the Department
- (10) Maintenance that should be performed by others
- (11) Estimated completion date
- (12) Bridge inspection summaries
- (13) History of maintenance
- (14) Utility relocation issues
- (15) Historical data regarding the road and/or the highway-railroad crossing, including research as to whether or not District has any right of way records for the roadway in its possession.

This information and exhibits must be available to OCC at least one month prior to hearing.

1. Questions and Procedures. The PUC issues the initial hearing notice, which may include the Qs & Ps. These Qs & Ps are a series of questions directed to all of the concerned parties. The Qs & Ps direct the parties to produce all relevant information that may have some impact on the resolution of the highway-railroad crossing dispute.

OCC reviews the Qs & Ps and submits the relevant questions to the DGCE/A or the CO GCU for a response. Normally, the DGCE/A is the primary contact and prepares the responses. The CO GCU is copied and kept informed of all aspects of the litigation. Occasionally, a representative of the CO GCU is the Department's primary witness.

In responding to the Qs & Ps, the DGCE/A compiles data from all relevant sources to fully and candidly respond to the queries raised by the PUC and the OCC. This involves coordination with other Department employees, including traffic engineers, project managers, consultants and members of the District bridge unit. This also involves searching records for past PUC decisions and any documentation or information relating to the subject crossing, past bridge inspection reports, past traffic studies at or near the crossing, and "Bridge Bill" funding availability. During this process, it may become apparent that additional witnesses may be necessary or that the DGCE/A or the CO GCU Engineer is not the appropriate witness. For the type of information required for a hearing involving abolitions, see Section 2.02C.2.

The DGCE/A and/or the CO GCU also prepares exhibits that can be used at the hearing. Generally, this requires that the DGCE/A or the CO GCU compile requested data and assimilate such data in a coherent and readable fashion.

In some cases the CO GCU or the DGCE/A may be asked to assist the OCC in discovery matters. Although not commonly used in highway-railroad crossing cases, the PUC regulations allow parties to conduct discovery in PUC litigation matters. Discovery normally is confined to:

- Interrogatories, which requires a party to provide answers to various questions related to the litigation; and
- Document production requests.

It is OCC's responsibility to determine which documents, if any, are to be provided to opposing counsel and which documents, if any, are covered by an applicable privilege, which renders such documentation non-discoverable. The DGCE/A and/or the CO GCU will identify any and all information, data or documentation that are responsive to the interrogatories or document production requests. This also involves searching all

Department records for past PUC decisions and any documentation or information relating to the subject crossing, past bridge inspection reports, past traffic studies at or near the crossing, and "Bridge Bill" funding availability. Discovery must be conducted within a limited period of time. Prompt response is essential.

All information obtained by the CO GCU or the DGCE/A is submitted to the OCC. The OCC then makes the appropriate decisions regarding production. Any request for information from outside counsel or parties <u>must</u> go through the OCC. It is important to comply with the above requests within a period of time established by OCC.

If a Right-to-Know request is made to the District regarding the crossing that is the subject of the PUC hearing, notify OCC immediately. For RTKL inquiries that are not a part of an ongoing litigation see Section 1.04Q.

2. Guidelines – Preparation for Hearing. These are the guidelines for preparing for a Public Utility Commission (PUC) hearing.

The following information shall be thoroughly researched for each highway-railroad crossing involved in the proceeding. In addition to the basic information such as the DOT number, State Route/Legislative Route and Segment/Offset, the following information is not only helpful, but also essential:

- (1) Roadway classification (Maintenance Functional Code)
- (2) Classification of highway used
- (3) General physical condition of roadway pavement (very good, good, fair, or poor)
- (4) Measured vertical and horizontal clearance
- (5) Required vertical and horizontal clearances (based upon roadway classification)
- (6) Type of structure
- (7) Measured roadway and shoulder widths
- (8) Required roadway and shoulder widths (based upon roadway classifications)
- (9) Any additional horizontal and/or vertical restrictions on the road in the vicinity of the crossing
- (10) Speed limit of roadway and whether or not it is posted
- (11) Measured stopping sight distance
- (12) Required stopping sight distance (based upon roadway classification)
- (13) Average Daily Traffic (ADT) and percentage of trucks
- (14) Reportable accidents at the crossing and in the vicinity of the crossing
- (15) Prior orders of the PUC
- (16) Description of the highway geometry
- (17) Historical Data
- (18) Any other information that may be requested by OCC

Any questions about these guidelines may be referred to OCC.

- **D.** Complaints and Investigations. In situations where the Department is named in a complaint or investigation, it is essential that the CO GCU or the DGCE/A immediately notify and provide copy of all documents to OCC, and cooperate fully with OCC.
- **E.** Publication of Hearing Notice. When the Department is the applicant or the complainant in a PUC matter, the PUC requires that the Department place a legal notice in a newspaper of general circulation in the area where the crossing is located indicating the date and time of the initial hearing. The notice is included with the initial hearing notice and provides direction on the timing of the publication of notice. The DGCE/A will contact the newspaper for publication of hearing notice and will obtain proof of publication from the newspaper, using the Publications Authorization and Invoice Form, STD-521. Also, the DGCE/A will process payment for the publication of the hearing notice in a timely manner. The original proof of publication (tear sheet) is provided to OCC prior to the hearing. If a hearing notice is not provided by the PUC, OCC needs to be advised so that a notice can be prepared for publication.
- **F.** Hearing Procedures. OCC will seek input from the CO GCU and/or the DGCE/A to evaluate the scope of the hearing and the relevant issues. OCC determines who will testify at the hearing based upon whose knowledge or expertise is necessary for the hearing.

OCC will meet with the CO GCU and/or the DGCE/A to discuss testimony and to review any other relevant information including the positions of the other parties. Ascertaining and understanding the position of other parties is crucial in presenting the best possible case on behalf of the Department.

Testimony is presented at the hearing in one of two ways: written direct or oral direct. Written direct testimony includes the questions and answers that normally occur in an exchange between the OCC and the Department witness. If written direct testimony is used, the PUC requires that it be submitted in advance to both the Administrative Law Judge (ALJ) and all of the parties at least 20 calendar days ahead of the hearing. If written direct is not used, the Department witnesses testify orally. OCC will often request that testimony be reduced to writing even if the PUC does not require it. When testifying, the witness shall not provide personal opinions. All testimony is limited to the opinion of the Department. The witness is to respond to a question with as direct an answer as possible. It is important for the witness(es) to meet with OCC to prepare for direct testimony and cross-examination.

Occasionally, there may be need for a further hearing. If so, the OCC notifies the CO GCU and/or the DGCE/A.

Finally, the greatest responsibility of the CO GCU and/or the DGCE/A is to be completely and frankly honest in his or her testimony and preparation. The most important part of the relationship between the CO GCU and/or the DGCE/A and the OCC is cooperation. As long as the CO GCU and/or the DGCE/A and OCC cooperate and communicate with each other, the Department's interest will be best served.

When the PUC schedules a hearing, it will delay the advancement of the project to a letting by approximately twelve months. The eventuality of a hearing should be addressed as early in design development as possible so an appropriate letting date can be established. The CO GCU, DGCE/A, OCC and other District and Central Office staff can be consulted to help resolve the issues.

Depending upon the unresolved issues, the hearing may be held before or after construction. If a hearing is required prior to construction, it may be necessary to reschedule the letting up to twelve months following the conclusion of the PUC hearings. It could take four to five months, at a minimum, for an Order approving the project and directing The Department to prepare final plans. This estimate is extremely conservative, and the process can take a year or more. The Department must have the PUC Order approving the project and any subsequent Orders approving construction plans and appropriating right-of-way before the project can continue. Hearings required after construction generally deal with unresolved issues related to cost allocations or determination of inspection/maintenance responsibilities.

After the hearing is held, the ALJ may request that the parties file briefs. The ALJ will then issue a recommended decision based upon the record and the law. The recommended decision is not a final Order.

The DGCE/A and the CO GCU must review the recommended decision immediately upon receipt and notify OCC if the recommended decision is not satisfactory so that OCC can prepare and file exceptions. Exceptions must be filed within 20 calendar days after the recommended decision is issued. Therefore, the DGCE/A's input within ten calendar days of the date of the recommended decision is imperative and necessary.

The PUC will review the evidence, the recommended decision, briefs, exceptions and reply exceptions and will adopt an Order at a public meeting. The Order will be entered and mailed to the parties after it is adopted. Once the Order approving the project is entered and the appeal period has passed, the Department may proceed with the project.

2.03 ACQUISITION OF RAILROAD PROPERTY

Acquisition is accomplished by one of two means:

A. Amicable Settlement. If the project requires property acquisition such as temporary construction easements, permanent right-of-way, and aerial easements from the Railroad, regardless of PUC involvement, then such railroad property could be acquired through amicable settlement. This will follow the Department's Right-of-Way acquisition procedures in accordance with the Publication 378, *Right-of-Way Manual*, Chapter 3, Section 3.03R.

However, it is recommended that all right-of-way needed from the Railroad by the Department for highway-railroad crossings, which would include PUC involvement, be appropriated through the PUC (see Section 2.03B). It is Department policy to pursue property acquisition from the Railroad through an amicable settlement and PUC appropriation concurrently so as to minimize any delays to the project development process if an amicable settlement cannot be reached with the Railroad. Amicable settlement needs to be accomplished as early in the project development as possible to avoid delaying the letting.

Preliminary right-of-way plans and property descriptions must be sent to the Railroad for their review and concurrence prior to the submission of the final right-of-way documents noted below.

The following information shall be supplied for submission to the Railroad.

- 1. Property Descriptions (by bearings and distances or stations and offsets) covering all property such as temporary construction easements, permanent right-of-way, and aerial easements to be acquired by the Department, both in hard-copy and electronic Word format.
- 2. Final right-of-way plan and notes sheet showing parcel(s) of railroad property to be acquired with references to existing railroad facilities such as railroad milepost marker number, DOT number, and/or valuation map (valmap) reference. See Publication 14M, Design Manual Part 3, *Plans Preparation*, Chapter 3, Section 3.5.
- 3. Standard offer letter with property descriptions, final right-of-way plat and notes sheets, settlement documents, sales agreement, and deed.

If an amicable acquisition has been achieved and PUC proceedings have already been initiated, the District R/W Administrator will forward a RW-348 (PUC Notification of Amicable Settlement) upon execution of all applicable settlement documents for the right-of-way claim. This will terminate the need for the PUC appropriation.

- **B.** Appropriation by the PUC. Prior to submissions made to the PUC for appropriation of railroad property, appropriate copies of the right-of-way plans with metes and bounds description(s) pertaining to railroad right-of-way to be appropriated are to be submitted by the DGCE/A to the Railroad for their review and concurrence. If railroad property is to be appropriated by the PUC, the following hard-copy documents/plans must be submitted to the PUC Secretary:
 - 1. One set of property descriptions (by bearings and distances or stations and offsets) covering all property to be appropriated by the PUC.
 - 2. One set of color-coded, right-of-way plans showing each individual parcel of property to be appropriated, with offsets to each corner and containing the courthouse record information including the present post office address of each record owner and the area for each parcel. In accordance with Publication 378, *Right-of-Way Manual*, Chapter 3, Section 3.08B.4.c, the color coding should be as follows:
 - a. Required right-of-way and aerial easements in red. Right-of-way for limited access, township roads, city streets, borough, streets, service roads, slope areas, and substitute right-of-way must be outlined separately.
 - b. Temporary construction easements in yellow.
 - c. Required channel, required drainage, required occasional flowage and required underground pipe drain easements in blue.
 - d. All others in brown.
 - 3. One set of signed final right-of-way plans including:
 - a. Title sheet (signed by the District Executive and sheets showing an index map)
 - b. Location map

- c. Plan, profile and typical sections (roadway(s), channel change(s), or railroad relocation(s)) within the above stated jurisdiction.
- d. The final right-of-way plan sheet(s) and notes sheet showing the parcel(s) of railroad property to be acquired must include a detailed metes and bounds description, references to existing railroad facilities such as railroad milepost marker number, DOT number, and/or valmap reference. See Publication 14M, Design Manual Part 3, *Plans Preparation*, Chapter 3, Section 3.5.

All submissions to the PUC must include a cover letter addressed to the PUC Secretary, with a courtesy copy of the same hard-copy documents/plans and cover letter submitted to the Supervisor of Rail Safety Engineering Section, Chief of RWUS, and OCC. All parties of record are to receive one copy of the same hard-copy documents/plans and cover letter submitted to the PUC. An example of a final right-of-way plan submission letter to the PUC can be found in Appendix A.

The plans submitted to the PUC Secretary, Supervisor of Rail Safety Engineering Section, Chief of RWUS, OCC, and those listed on the parties of record must be half size plans (11" x 17").

For scanning purposes the hard-copy documents/plans and cover letter to be filed with the PUC are to be in "loose leaf" form, without staples, permanent glued/taped bindings or spiral binders. If practical use only paper clips, binder clips and/or rubber bands to keep the original intact. Binding of the additional copies is permitted. See Section 2.06 for eFiling procedures.

The PUC will accept a hard-copy of the cover letter addressed to the PUC Secretary, one hard-copy of the documents/plans, and a CD containing a copy of the documents/plans. For all parties of record, Chief of RWUS, and OCC a hard-copy of the cover letter with a CD containing a copy of the documents/plans can be submitted in lieu of a hard-copy of the documents/plans.

In addition to providing the Supervisor of Rail Safety Engineering Section with a hardcopy of the documents/plans, an electronic copy of the property descriptions, in Word format, must also be provided.

For additional information pertaining to the submission process for PUC appropriation of railroad right-of-way, refer to Chapter 4, Section 4.04.

C. Timing of Acquisition. The PUC appropriation of railroad property needs to be accomplished as early in the project development process as possible to avoid delaying the letting. The PUC cannot appropriate property unless the final, signed right-of-way plan has been submitted to the PUC, including a detailed metes and bounds description. An electronic copy of the property descriptions and recitations, in Word format, must also be sent to the Supervisor of Rail Safety Engineering Section for inclusion in the required order.

The DGCE/A must submit appropriate copies of the right-of-way plans with property descriptions (including metes and bounds) pertaining to the railroad right-of-way impacts to the Railroad for their concurrence prior to a formal submission being made to the PUC and all parties of record.

- **D. Preparation of Property Descriptions.** The following general comments are to be adhered to in preparing property descriptions:
 - 1. Identify property owner. For CSX and Norfolk Southern, the following names are to be used no matter what the record deed provides:

CSX: when acquiring property from CSX, it should be identified on all right-of-way documents as CSX Transportation, Inc. since this is the rail operator on properties acquired by CSX Corporation. The plans and/or metes and bounds descriptions are to state "CSX Corporation as successor in interest to NYC Lines LLC pursuant to merger effective April 26, 2004."

Norfolk Southern: when acquiring right-of-way from Norfolk Southern, it should be identified on all right-of-way documents as Norfolk Southern Railway Company, not Pennsylvania Lines LLC or Norfolk

Southern Corporation. The plans and/or metes and bounds descriptions are to state "Norfolk Southern Railway Company, successor through merger with Pennsylvania Lines, LLC, dated August 27, 2004."

- 2. Property descriptions must be in the format in the following examples.
- 3. No abbreviations are to be used. All words must be spelled out. Use "State Route", not "S.R." for example.
- 4. The reference line used for the property descriptions must be referred to exactly as shown on the plan, such as "Construction and Right-of-Way Centerline." The offsets and distances used in the property descriptions must not conflict with those shown on the right-of-way plan.
- 5. The property description must start at an existing point of a recorded property, and be tied to a point that will exist after the construction has been completed.
- 6. Descriptions must proceed in a "clockwise" direction.
- 7. When a line being described is on curvature, the radius of the arc must be included in the description.
- 8. When the reference line is on curvature, the offset shall be described as measured "radially" from the reference line instead of "at right angles" from the reference line.
- 9. If different portions of one property are being taken for separate purposes, these portions must be described separately. For example, if one part of a property is being taken for limited access right-of-way and another part of the same property is being taken for free access right-of-way, these two tracts must be described separately even if they are contiguous.
- 10. Property taken for aerial easements must be described separately.
- 11. Any temporary easements (for construction) must be described separately and physically separated from the descriptions of "permanent" property required. This must be separated because we request the PUC to appropriate such property temporarily, for use during the construction period only. **This temporary appropriation terminates upon completion of the improvement and its opening to the public.**

In order to assure proper and uniform preparation of property descriptions, included below are examples of property descriptions consisting of the following:

- 1. Property descriptions for two tracts of Railroad's property that were appropriated by the Commission as required right-of-way for this project.
- 2. Property descriptions for one tract of Railroad's property that was appropriated by the Commission, as temporary construction easement.

The following information has been prepared to present a basic outline for property descriptions. Any specific questions on descriptions for particular projects are to be directed to the CO GCU.

Pennsylvania Railroad, Inc., Property Owner 15 North 32nd Street Philadelphia, Pennsylvania 19104

ALL THOSE CERTAIN tracts of land situated in the Borough of Quarryville, Lancaster County, bounded and described as follows, to wit:

TRACT NO. 1 (Required Right-of-Way)

Beginning at a point on the northerly side of State Route 0344, said point being at the intersection of the northerly required right-of-way line for State Route 0344 and the southerly right-of-way line of Pennsylvania Railroad, Inc.

distant twenty-eight (28) feet northwesterly and measured at right angles from the survey and right-of-way centerline of State Route 0344 at or about Station 576+42 thereof; thence in a northeasterly direction along the said required right-of-way line to a point distant fifty (50) feet northwesterly and measured at right angles from the survey and right-of-way centerline of State Route 0344 at or about Station 577+70 thereof; thence in a southeasterly direction along the said required right-of-way line to a point distant thirty-five (35) feet northwesterly and measured at right angles from the survey and right-of-way centerline of State Route 0344 at or about Station 577+70 thereof; thence in a northeasterly direction along the said required right-of-way line to a point on the northerly legal right-of-way line of State Route 0344 distant thirty-five (35) feet northwesterly and measured at right angles from the survey and right-of-way centerline of State Route 0344 at or about Station 577+78 thereof; thence in a general southwesterly direction along the said legal right-of-way line to a point on the southerly right-of-way line of Pennsylvania Railroad, Inc. distant twenty (20) feet northwesterly and measured at right angles from the survey and right-of-way centerline of State Route 0344 at or about Station 576+05 thereof; thence in a westerly direction along the said right-of-way line of Pennsylvania Railroad, Inc. to a point and place of beginning and containing forty-seven thousandths (0.047) of an acre of land more or less.

TRACT NO. 2 (Required Right-of-Way)

Beginning at a point on the southerly side of State Route 0344, said point being at the intersection of the southerly legal right-of-way line of State Route 0344 and the southerly right-of-way line of Pennsylvania Railroad, Inc. distant ten (10) feet southeasterly and measured at right angles from the survey and right-of-way centerline of State Route 0344 at or about Station 577+67 thereof; thence in a general northeasterly direction along the said legal right-of-way line to a. point on the northerly required right-of-way line for State Route 0344 distant thirty-five (35) feet northwesterly and measured at right angles from the survey and right-of-way centerline of State Route 0344 at or about Station 578+77 thereof; thence in a northeasterly direction along the said required right-of-way line to a point on the northerly right-of-way line of Pennsylvania Railroad, Inc. distant thirty-five (35) feet northwesterly and measured at right angles from the survey and right-of-way centerline of State Route 0344 at or about station 579+48 thereof; thence in an easterly direction along the said right-of-way line of Pennsylvania Railroad, Inc. to a point on the southerly required right-of-way line for State Route 0344 distant thirty-five (35) feet southeasterly and measured at right angles from the survey and right-of-way centerline of State Route 0344 at or about Station 581+48 thereof; thence in a southwesterly direction along the said required right-of-way line to a point on the southerly right-of-way line of Pennsylvania Railroad, Inc. distant thirty-five (35) feet southeasterly and measured at right angles from the survey and right-of-way centerline of State Route 0344 at or about Station 579+35 thereof; thence in a westerly direction along the said right-of-way line of Pennsylvania Railroad, Inc. to a point and place of beginning and containing three hundred and eighty-three thousandths (0.383) of an acre of land more or less.

The above two (2) tracts of land shown on the Department's Drawings Authorizing Condemnation of Right-of-Way for State Route 0344, Section B08 R/W, as required right-of-way for State Route 0344 and designated and delineated as parts of Parcel No. 3 on Sheets Nos. 4 and 6 of the said drawings, as recorded in the office for the recording of deeds, etc. in Lancaster County, Pennsylvania, in Highway Plan Book V-70 Page 29, on June 22, 1982, are portions of real estate which became legally vested in Pennsylvania Railroad, Inc. by deed of Robert W. Blanchette, Richard C. Bond and John H. McArthur, as Trustees of the property of XYZ Transportation Company, Debtor, dated March 30, 1976, and recorded November 28, 1978, in Deed Book U-75, Page l, in the Lancaster County Courthouse.

Pennsylvania Railroad, Inc., Property Owner 15 North 32nd Street Philadelphia, Pennsylvania 19104

ALL THAT CERTAIN tract of land situated in the Borough of Quarryville, Lancaster County, bounded and described as follows, to wit:

TRACT NO. 3 (Temporary Construction Easement)

Beginning at a point on the southerly side of State Route 0344, said point being at the intersection of the southerly required right-of-way line for State Route 0344 and the southerly right-of-way line of Pennsylvania Railroad, Inc. distant thirty-five (35) feet southeasterly and measured at right angles from the survey and right-of-way centerline of

State Route 0344 at or about Station 578+35 thereof; thence in a northeasterly direction along the said required right-of-way line to a point on the southerly right-of-way line of Pennsylvania Railroad, Inc. distant thirty-five (35) feet southeasterly and measured at right angles from the survey and right-of-way centerline of State Route 0344 at or about Station 578+92 thereof; thence in a southerly direction along the said right-of-way line of Pennsylvania Railroad, Inc. to a point on the southerly boundary of temporary construction area distant fifty-three (53) feet southeasterly and measured at right angles from the survey and right-of-way centerline of State Route 0344 at or about Station 578+84 thereof; thence in a westerly direction along the said boundary to a point and place of beginning and containing twelve thousandths (0.012) of an acre of land more or less.

The above tract of land shown on the Department's Drawings Authorizing Condemnation of Right-of-Way for State Route 0344, Section B08 R/W, as temporary construction area and designated and delineated as part of Parcel No. 3 on Sheet No. 6 of the said drawings, as recorded in the office for the recording of deeds, etc. in Lancaster County, Pennsylvania, in Highway Plan Book V-7, Page 29, on June 22, 1982, is a portion of real estate which became legally vested in Pennsylvania Railroad, Inc. by deed of Robert W. Blanchette, Richard C. Bond and John H. McArthur, as Trustees of the property of XYZ Transportation Company, Debtor, dated March 30, 1976, and recorded November 28, 1978, in Deed Book U-75, Page 1, in the Lancaster County Courthouse.

2.04 RECORDING OF PROPERTY DESCRIPTIONS IN THE COURTHOUSE

The PUC will direct in its Order that the excerpt of the Order appropriating railroad property be recorded with the Recorder of Deeds in the county where the property is located.

The PUC will issue a certified excerpt of the Order under seal directing the Recorder of Deeds to record the excerpt of the Order appropriating the property. The CO GCU/OCC will supply the originals to the Districts for recording. The excerpt of the order should not be recorded until the 30 day appeal period has past and the District is certain no appeals were filed. Proof of recording of the Order Excerpt must be submitted to the PUC for their records. See example transmittal letter found in Appendix A entitled "Notification of Recording to PUC." Some Counties require that the PUC letter addressed to the Recorder of Deeds at the County must be notarized. If it is needed, PUC will supply a notarized copy of the letter. Payment for the recording must be processed by the District in a timely manner. See Publication 378, *The Right-of-Way Manual*, Chapter 3, Section 3.03R, *Acquisitions from Railroads*, for more information.

2.05 TYPES OF PUC DOCKETS

There are various PUC dockets depending on the type of issues involved.

- 1. Application or "A" dockets deal with projects where a party has filed an Application for performing work at a crossing, creating a new crossing or abolishing/suspending an existing crossing. This is the most common type of docket encountered on Department projects.
- **2.** Complaint or "C" dockets deal with complaints filed by a party concerning a crossing. Complaints can be filed by a public entity, Railroad, or an individual. Only OCC can file the complaint on the Department's behalf.
- 3. Investigation or "I" dockets are instituted by the PUC itself to look into maintenance or other safety issues.
- **4.** Miscellaneous or "M" dockets are instituted by the PUC to deal with any aspect of the crossing normally not covered under other dockets, such as bridge posting.

2.06 PUC eFILING

The PUC's eFiling permits parties to: 1) file certain documents electronically without filing paper copies; 2) serve documents electronically on other parties if they agree to receive such service; and 3) to receive electronic service of

documents from the PUC and other parties. The eFiling process is intended to permit individuals to initiate formal proceedings with the Commission by the filing of a Qualified Document.

A Railroad PUC Application is one of many Qualified Documents that can be eFiled. The Department has established a "corporate account" to eFile with the PUC, and only the OCC, CO GCU, and those DGCE/A's who are certified to file Applications on the Department's behalf are or can be setup as a "user" under the Department's corporate account. All questions regarding eFiling of Applications on behalf of the Department are to be directed to OCC.

When eFiling an Application, the original PUC Application must still be sent to the PUC Secretary within three (3) days from the date of eFiling. The eFiling confirmation sheet MUST be attached to the original Application that is sent to the PUC Secretary.

The PUC will accept "unsigned" documents for eFiling. The actual "signature" for the electronic Verification statement is accomplished by submitting the filing under a District username id and password. The cover letter, Application, Verification, and Certificate of Service do not need to have original signatures, but must include "/s" in the signature lines, Stated another way, the user no longer needs to print out, ink sign and then scan in a document to ready it for eFiling. The cover letter, Application, Verification, and Certificate of Service can be created as an integrated non-image.PDF file. NOTE: this only applies where the filer is the person whose name appears on the Verification.

- **A. General Requirements.** The PUC allows documents to be electronically filed through the PUC's website. 52 Pa. Code § 1.32(b). A person must be properly registered to e-file any documents. The following requirements must be met when e-filing with the PUC:
 - The document must comply with the paper filing requirements regarding margins, spacing and type size—i.e., the document must be typewritten, on paper that is 8 to 8 1/2 inches wide by 10 1/2 to 11 inches long, double spaced, and at least 10-point type. Please refer to the PUC's paper filing regulations, 52 Pa. Code § 1.32(a).
 - The document must constitute a "qualified document" to be e-filed; a document that is not qualified must be submitted in paper form.
 - The document must be in PDF format.
 - The filing, with all included attachments, is limited to 10 megabytes. In the event that a filing is over 10 megabytes, it must be submitted by paper filing; however, the District may submit an electronic copy on CD-ROM or DVD for the PUC's convenience.
 - The PUC's requirement may, from time to time, change. Central Office will notify the Districts if there is any material change.
 - **Note:** Once a document is e-filed, the filing system will automatically generate a notice confirming the successful receipt of the filing—this receipt must be retained by the filer.
 - **Note:** Do not e-file any document that contains sensitive or confidential information, such as NBIS bridge inspection reports. Filings containing confidential information shall be filed in paper form. If the PUC requires public or redacted versions of those filings they may be submitted in paper form or provided on a CD-ROM or DVD.
- **B.** Qualified Documents. The PUC publishes, on its website, a list of the qualified documents that a party may file electronically. The document must comply with all of the requirements listed in above. For purposes of highway-rail crossing cases, the following documents may be e-filed: Application (Railroad); Letter (associated with an existing case); and a Rail Plan. For a complete list of qualified documents go to: http://www.puc.state.pa.us/efiling/DocTypes.aspx.
- **C. Number of Copies.** If the document is 250 pages or less, no paper copy is required. If the document exceeds 250 pages and is less than 10 megabytes, one original paper copy is required—in addition to the electronic copy—and must be submitted within three (3) business days. However, the Department must still serve a paper copy of the document(s) on all concerned parties, including but not limited to the Railroad, governmental entities, and utilities. A copy shall also be sent to Central Office Grade Crossing and OCC.

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CHAPTER 3

THE HIGHWAY-RAILROAD CROSSING SAFETY PROJECT PROCESS

3.01 INTRODUCTION

Improvement of the safety of highway-railroad grade crossings is an established, high priority among state and federal transportation officials.

Title 23 US Code, Section 148, Highway Safety Improvement Program, sets aside funds for apportionement under 23 US Code Section 130, Railway-highway Crossings, to implement railway-highway grade crossing safety projects on any public road. Laws governing the Section 130 Safety Program are contained in United States Code, Title 23, Section 130 (23 U.S.C. § 130). At least 50% of the funds allocated under the program must be used for the installation of automatic flashing lights and gates. The remaining funds may be used for other crossing improvements. The program also provides incentive payments for the closure of existing at-grade crossings. [See 23 U.S.C. § 130 (i).]

This chapter introduces the Section 130 Safety Program and provides a step-by-step commentary on the Department's Safety Project Standard Operating Procedure (SOP). The purpose of this chapter is to assist the Department's DGCE/A in the development of projects involving the Section 130 Safety Program. The Safety Project SOP is contained in Appendix D, Standard Operating Procedures.

The DGCE/A should be involved in any preliminary discussion on projects that include highway-railroad crossings in order to develop a plan of action for addressing highway-railroad crossing related issues. Any alteration to the crossing will require the involvement of the PUC, which will be coordinated by the DGCE/A through the Grade Crossing Unit (GCU) in the Bureau of Project Delivery, unless the District is certified to file Applications with the PUC. Alterations to the crossing include, but are not limited to, widening the roadway, paving the shoulders, widening the paved shoulders, installing automatic lights and gates, and changing the surface type of the crossing.

The use of the Department's Grade Crossing Electronic Document Management System (GCEDMS) by the DGCE/A is required for the collection, maintenance, and updating of all public crossing data; and for the daily operations, management, data entry, and document storage for all active and future Department highway-railroad crossing safety projects (Section 130). Refer to Chapter 8 for additional details and procedures.

3.02 GUIDELINES FOR PROGRAMMING HIGHWAY-RAILROAD GRADE CROSSING SAFETY PROJECTS

- **A. Project Funding.** The United States Department of Transportation (US DOT) provides crossing safety funds to the states through the Federal Highway Administration (FHWA). The Federal Highway-Railroad Grade Crossing Safety Program provides states with funds specifically for highway-railroad grade crossing safety improvements. Grade crossing safety improvements that follow the process outlined in this chapter can also be funded by other federal and state money.
- **B.** Transportation Improvement Program. Pennsylvania's Twelve Year Transportation Program (12-Year Program) is the official state program for improving Pennsylvania's Transportation System. For more information see Chapter 1, Section 1.06.

Program listings are organized primarily around MPOs and RPOs; however, there are statewide programs such as Interstate Maintenance and Section 130. Information provided for these projects includes brief project descriptions, funding sources, and costs. Projects must be included on the Transportation Improvement Program (TIP) in order to receive Federal funds.

Funding sources can include a combination of federal, state, and local funds made available over the specified twelve year period.

- C. Projects Categories. Candidate Safety projects are categorized as follows:
 - 1. Warning Devices
 - 2. Corridor Safety Projects
 - 3. At-Grade Crossing Consolidations/Closures

A detailed discussion of At-Grade Crossing Consolidations/Closure is found in Chapter 9. This chapter focuses on the identification of at-grade crossings that have the potential of being closed and the crossing closure incentive payments available through the Section 130 program and/or by the Railroad.

- **D.** Funding Restrictions. It is a federal requirement that at least 50% of the Section 130 safety funds must be spent for the installation of warning devices at at-grade crossings. The development of prioritized grade crossing projects must meet the following criteria:
 - 1. Section 130 safety funds may only be used on open, public, heavy rail (freight and passenger) crossings.
 - 2. The crossing has been identified to be within the top 25% of the statewide prioritized list using the FRA Accident Prediction System .
 - 3. Crossing surface improvements are eligible if they are part of a project to install warning devices, the crossing meets the 25% criteria above, and the surface improvement (surface materials, labor, and equipment), as a guide, does not exceed 20% of the total project costs. Total project cost includes all design, construction (materials and labor), construction inspection, and traffic control (design, implementation, and maintenance) costs. On a case-by-case basis and with FHWA concurrence, stand-alone surface improvements can be considered if the District can evaluate and quantify the safety benefits.
 - 4. Corridor or group projects that include a Railroad's share of the costs and include safety related warning device upgrades, with or without crossing closures, must contain at least one crossing that falls within the top 25% of the statewide prioritized list.
 - 5. Warning device upgrades cannot represent a "replacement in kind" of equipment that has reached the end of its normal service life as this is considered a maintenance responsibility of the Railroad. Any improvement must provide a safety benefit and is quantifiable, such as an upgrade from eight inch incandescent to twelve inch LED roundels to improve visibility of warning devices.
 - 6. Where grade crossings fall within the limits of or near the terminus of a highway or bridge project, grade crossing funds <u>may</u> be used for crossing improvements only if the crossing meets the 25% criteria above; otherwise other funding, excluding safety funds, shall be used.
 - 7. Any potential grade crossing project that utilizes Section 148 safety funding must also conform to the same criteria as set forth for the use of Section 130 safety funds.
 - 8. If a municipality requests the Department spend safety funds for active crossing protection (i.e., lights and gates) within a proposed quiet zone (see FRA final rule regarding <u>Use of Locomotive Horns at Highway-Rail Grade Crossings</u> dated June 24, 2005), it will be evaluated against other grade crossing needs, and those projects with the greatest safety need will be programmed on a priority basis. Should a municipality apply for a quiet zone, they will be expected to pay for the supplemental safety measures associated with a quiet zone on their own.

It is imperative that the projects programmed are identified on prioritized lists developed using the FRA Accident Prediction Model. If the planned projects are not on this list, it will be up to the District and the Planning Partners to identify other funding sources.

This Manual contains approved policies and procedures for projects using Section 130 Safety funds and that non-compliance with these policies and procedures outlined in this Manual may result in the ineligibility for Federal funds.

E. Multi-Modal Project Management System (MPMS). Each District coordinates with Central Office Grade Crossing Unit to develop a list of highway-railroad grade crossing candidate projects and ensure that all required information is contained in the Multi-Modal Project Management System (MPMS). To accomplish this, the DGCE/A must work with the District Planning and Programming Engineer in collecting project data and entering it into the MPMS. Completing the MPMS data requirements is necessary for a grade crossing project to reach full candidate status.

3.03 POLICY ON USING FEDERAL AND STATE FUNDS

A. Federal Funds. If federal funds are being used for a highway/bridge construction project, and a highway-railroad grade crossing is located within the limits of or near the terminus of the project, the regulations in 23 CFR § 646.214 (b) require that adequate warning devices be installed at the highway-railroad grade crossings.

Specifically, 23 CFR § 646.214 (b) (2) states:

Pursuant to 23 U.S.C. 109 (e), where a railroad-highway grade crossing is located within the limits of or near the terminus of a Federal-aid highway project for construction of a new highway or improvement of the existing roadway, the crossing shall not be opened for unrestricted use by traffic or the project accepted by FHWA until adequate warning devices for the crossing are installed and functioning properly.

The phrase "within the limits of" as set forth in 23 CFR § 646.214 shall be considered as the area between the start work and stop work (construction length) as defined in Publication 14M, Design Manual Part 3, *Plans Presentation*, Chapter 2, Section 2.3D. "Near the terminus" shall be considered as the area between the limit of work stations and the start work and stop work stations. The limit of work stations must be established in accordance with Publication 14M, Design Manual Part 3, *Plans Presentation*, Chapter 2, Section 2.1E.

The FHWA requires a certification statement on the Form D-4232 that indicates that the Department will comply with 23 CFR § 646.214. The D-4232 prepared for either a Section 130 safety project or Highway/Bridge project involving railroad facilities must be indicated in the "Remarks & General Information" section the DOT number(s) for all highway-railroad crossings associated with that project.

Therefore, any project that is federally funded and includes a highway-railroad grade crossing within the limits of work or near the terminus of the project will need to comply with 23 CFR § 646.214. Any betterment, safety, or other highway improvement projects that are funded with federal money in any phase will require that the highway-railroad crossing be analyzed in accordance with 23 CFR § 646.214 to determine the appropriate, adequate warning devices. This also applies to the highway-railroad crossings on intersecting roadways. Generally, this may increase the cost of the project if automatic gates with flashing lights signals are required.

Federal regulations also require that all construction work must comply with the "Buy America" provisions in 23 USC §313 and 23 CFR § 635.410 and the "Build America, Buy America" (BABA) provisions in Public Law 117-58 §§ 70901-52 if it meets certain criteria (see Chapter 7, Section 7.07D and Section 7.07E). This includes materials used by the Railroad in conjunction with a highway/bridge project as well as Section 130 Safety Program projects.

B. State Funds. The expenditure of Motor License Funds is specifically limited to the construction, maintenance, repair and safety of the Commonwealth's highways and bridges. The mere fact that railroad tracks cross the highway right-of-way is itself insufficient to support a conclusion that they are part of the highway system and therefore, eligible for Motor License Funds. To allow the expenditure of Motor License Funds on rail-related facilities, the expenditure must be part of a Department highway project that impacts the facilities of the Railroad or be a rail facility that has a direct relationship and impact on highway traffic. Examples of the exception for rail facilities having a direct relationship and impact on highway traffic would be signals, crossing gates, automatic or manual protection and constant warning devices that control the movement of motor vehicle traffic on the highway. Examples of rail facilities and work that may not be financed by Motor License Funds and are unrelated to a highway project would include tracks, ties, surfaces, subsurfaces, rail sidings, intermodal yards, rails, switches and other track-related repair work, and the purchase of loading and unloading equipment.

Maintenance resurfacing projects that are funded with 100% state funds need only address pavement markings and

signing at highway-railroad crossings. The pavement markings and signing must be re-established in accordance with Part 8, Traffic Controls for Railroad and Light Rail Transit Grade Crossings of the current *Manual on Uniform Traffic Control Devices* (MUTCD).

3.04 PROGRAMMING

A. Project Need. A key function of project programming is matching available funds to identified needs. Programming highway-railroad crossing projects involves close coordination between the CO GCU, the DGCE/A, the District Programming Engineer (DPE), and the Center for Program Development and Management (Program Center). The CO GCU in coordination with the DGCE/As will develop and identify a two year program of safety projects based on a priority listing. This process is driven by the Federal Fiscal Year (FFY), which runs from October 1 to September 30 of the following year.

The CO GCU in coordination with the DGCE/A and the Railroads shall develop a project priority listing of safety projects based on project need and guidance set forth by FHWA (see Section 3.02D). This will require the use of Federal Railroad Administration's Web Based Accident Prediction System (WBAPS) listing. The CO GCU, the DGCE/A and the Railroads shall determine what improvements are anticipated to be made at the crossing (lights, gates, cantilevers, surface, safety upgrades, or a combination thereof). This initial step may require a field view with the Railroad to discuss proposed improvements.

Upon completion of the project priority listing the CO GCU in coordination with the DGCE/A and the Railroads shall identify which of those projects need to follow the simplified procedures as outlined in 23 CFR § 646.218 entitled "Simplified Procedure for Accelerating Grade Crossing Improvements" (refer to Appendix H). This procedure may be used when it has been determined by the Department that obtaining D-4232 authorization by FHWA for the construction phase is necessary prior to filing a PUC application for the highway-railroad crossing safety improvement project(s).

The procedures outlined in 23 CFR § 646.218 should be applied when there is a need to simplify and accelerate the processing of single or multiple grade crossing projects that can reach the construction stage within one year and be completed within two years from the initial D-4232 authorization date by FHWA.

- 1. Railroad Concurrence. Once the Department and the Railroad have reached an agreement on the criteria set forth below and in order to meet the requirements of 23 CFR § 646.218 the DGCE/A is required to have a formal letter signed by the Department containing a Railroad concurrence signature for the highway-railroad crossing safety project(s) which includes the following information and shall be retained in the project files (refer to Appendix A for example of a formal concurrence letter).
 - a. Identification of each crossing location.
 - b. Description of the proposed improvements/alterations and cost estimate for each crossing location.
 - c. Railroad Project Cost Estimate. The DGCE/A discusses the proposed project with the Railroad. The DGCE/A requests from the Railroad a cost estimate for the proposed work to be completed at the crossing. The Railroad estimates the approximate cost of the proposed highway-railroad crossing improvement project and submits these costs to the DGCE/A who provides this estimate to the DPE. This estimate will be used in the programming of the project with the DPE.
 - d. Estimated schedule for completion of work at each crossing location.

The information contained in the documentation prepared above can also be used by the DGCE/A and DPE for the programming and development of the project(s) in MPMS and the preparation of a PMC request as discussed in Sections 3.04B and 3.04C.

Following programming of the project in MPMS and receipt by the DGCE/A of the formal signed concurrence letter between the Department and the Railroad, as outlined above, the Department may submit and FHWA may authorize the D-4232 for the construction phase with the following conditions:

- That only material actually incorporated into the project will be eligible for Federal participation.
- That no work will commence until after the construction plans, specifications and estimate have been approved by the PUC as outlined in Section 3.05 O.
- That a formal agreement will be executed and processed as outlined in Section 3.05 K.

Should the simplified procedure for accelerating grade crossing improvements not be used for a safety improvement project, the provisions outlined in 23 CFR § 646.216 (e)(2) must be met prior to FHWA authorization of the D-4232 for the construction phase.

It is OCC's recommendation that the DGCE/A notify the Railroads prior to the preparation of their project estimate that the Railroads are required to ensure that any applicable state prevailing wage rates are applied. Refer to Appendix H for additional guidelines pertaining to the applicability of prevailing wage rates and how it impacts Section 130 projects and highway/bridge projects involving railroads.

- 2. Cooperation Agreement. The DGCE/A verifies if the Railroad has a signed Cooperation Agreement with the Department which outlines the general terms of each party's responsibilities pertaining to the project, thereby eliminating much of the time consuming administrative coordination that can otherwise slow project development. See Chapter 7, Section 7.04 A.
- **3.** Funding. The DGCE/A, working in conjunction with the Program Center and CO GCU, establishes the funding for the safety project for both the design and/or construction phase based on federal funds and potential Railroad contributions. The design and construction costs of qualifying projects are eligible for reimbursement with federal funds through the Section 130 safety program. The federal share is 90% and PennDOT typically uses toll credits to make up the 10% match. Funds for a specific project will be drawn down from the statewide highway-rail line item.
- **4.** Local Government Resolution. If the project is on a local highway, a local government resolution is required to authorize the Department to act on behalf of the local government body to file an Application with the PUC and to issue the notices to proceed for design and construction. Resolution(s) must be attached to the PUC Application as an Exhibit (refer to Section 3.05G). Refer to Appendix A for an example letter to municipality requesting their authorization.
- **B.** Project List to District Programming Engineer. After adoption of the statewide Safety Project program, the DGCE/A submits the District's project list and MPMS information to the DPE for processing. An MPMS number is then assigned to the new project(s). This is done in two-year cycles with updating occurring throughout the period. This will be followed by preparation of a Program Center request to the DPE identifying the new safety project, location, and funding source based on the Department's allotment of funds. Be sure to include the DOT # in the project description. See Appendix F for more information and guidance on the Safety Program.
- C. Establish State Project Numbers for Design and/or Construction Phases. The establishment of the Work Breakdown Structure (WBS) element, also known as State Project numbers (SPN), is required for the design and/or construction phases of a safety project. In the WBS/SPN, the phase number for railroad projects is 01. The WBS/SPN number established for design and construction phases of a project contains a program code number. The program code number used is dependent on the funding source and whether or not the funds are used on a local road or State Route. The following is a summary of program codes for safety projects based on the phase and if the funds are used on a local road or State Route.

Design Phase

• A separate WBS/SPN is not required on a safety project.

Construction Phase

- On local roads a WBS/SPN is established having program code 375 (Highway F/L).
- On State Routes a WBS/SPN is established having program code 373 (Highway F/S)

Note that if a safety project involves multiple crossings on both local roads and State routes (example: LED upgrades to multiple crossings) under one MPMS number and PUC Application, two separate WBS/SPN numbers will need to be established for the construction phase. The SAP-7 will also need to reflect both WBS/SPN numbers with associated dollar amounts. The Railroad will also need to submit separate invoices, one for the crossings on local routes and another for those on State Routes that way the proper WBS/SPN can be applied in SAP.

D. Timing. It is recommended that the programming of new safety projects occur during October of the FFY. The FFY runs October 1 to September 30. For example FFY 2015 begins October 1, 2014 and ends on September 30, 2015

3.05 HIGHWAY-RAILROAD CROSSING DESIGN

- A. Environmental Clearance. The DGCE/A coordinates with the District Environmental Manager to determine the level of environmental action required for the project. Most Section 130 safety projects are contained within existing highway and railroad right-of-way limits and have little impact on the environment; therefore, they qualify for Level 1A Categorical Exclusions. The DGCE/A shall submit to the Environmental Unit, at a minimum, a project description, location map, DOT #, and MPMS # so that they can prepare and have approved, in most cases, a Level 1A CEE. The Level 1A CEE, generated through the CE Expert System, can typically be approved at the District level. In some Districts, the DGCE/A completes the scoping form and forwards it to the District Environmental Manager to sign.
- **B.** Obtain Right-of-Way Clearance. The DGCE/A shall submit to the District Right-of-Way Administrator a project description and location map of the project requesting right-of-way (ROW) clearance for the safety project. In most cases, the proposed safety improvements are contained within the Department's and Railroad's existing ROW.
- **C. Design, Implement and Maintain Detour.** Should a project on a state route require a full detour (e.g., installation of high-type surface), determine if the District is willing to design, implement and maintain the detour. If so, obtain approval in writing from the Assistant District Executive for Maintenance. Should the project be on a local road, determine if the municipality is willing to cover the design, implementation and maintenance of the detour. If the Railroad is required to take care of the detour, then this task and cost would become part of the construction costs and are eligible for federal reimbursement. Refer to Section 3.05N.
- **D.** Form D-4232. The Department and FHWA use this form, Request for Federal Authorization, to authorize the use of federal funds for safety projects. Form D-4232 is only required for federally-funded projects. It provides a concise summary of project characteristics, including a description of items such as: funding items, environmental requirements, and certifications of compliance with 23 CFR § 646.214.

The DGCE/A shall prepare and submit a Form D-4232 to the DPE requesting federal authorization of the funds for the project. The Form D-4232 must include a statement that certification of compliance with 23 CFR § 646.214 has been met and indicating in the "Remarks & General Information" section the DOT number(s) for all highway-railroad crossings associated with that project.

The DPE will finalize the Form D-4232 for submission to CO Center for Program Development for approval. The approved Form D-4232 is then forwarded to FHWA for authorization. The Program Center notifies the DPE of funding approval authorization by FHWA.

- **E.** Authorize Preliminary Engineering for Railroad(s). If determined necessary based on the complexity of the project and the Railroad involved, authorization may be provided to the Railroad to proceed with preliminary engineering. On State Routes, the District Executive or Assistant District Executive for Design may authorize preliminary engineering. On projects involving a local road, the DGCE/A must obtain authorization from local government to act on their behalf and issue appropriate notices.
 - 1. Secure Right of Entry Permits and Agreements. The securing of Right of Entry permits and/or agreements for preliminary engineering between the Railroad and the Department/local municipality may be required. If an agreement is necessary, use one of the Pre-Approved Agreements (contact CO GCU to obtain a copy). Also, see Section 3.05K and Chapter 7, Section 7.04 for agreement processing procedures and for various

types of agreements used between the Department and the Railroads.

- 2. Verify Railroad Design Consultant. Consultant support is more commonly used in highway/bridge projects but the Railroad may elect to use a design consultant for a safety project. If the Railroad elects to use a design consultant, the DGCE/A must verify that the consultant has been approved by the Department in accordance with 23 CFR § 646.216(b)(1)(iii). Refer to Chapter 7, Section 7.06A for additional information.
- **F.** Conduct Field View. The DGCE/A contacts PA-One-Call prior to the field view with the Railroad. The CO GCU and/or DGCE/A meets with representatives of the Railroad (the PUC can also be invited to the meeting on an informal basis) to field view the project site and review the Diagnostic Analysis Form (Appendix B).

The Department must comply with the 23 CFR § 646.214 on all projects with a highway-railroad crossing. This section of 23 CFR deals with the installation of adequate warning devices at highway-railroad crossings and the approval authority for the proposed installations.

The need for a detour and maintenance and protection of traffic should be discussed with the Railroad at the field view. This topic will be addressed at the PUC Diagnostic Field View.

The Diagnostic Analysis Form is used to document the Department's compliance with the federal regulations. This form provides the Department's recommendation for what protective devices are to be installed at a highway-railroad crossing and provides appropriate justification as shown on the form.

The Diagnostic Analysis Form must be completed and retained in the project files. This form is "confidential" and should not be purged from the project file. The Diagnostic Analysis Form is not to be viewed or to have copies provided to any party outside of the Department without first consulting with the OCC (see Chapter 1, Section 1.04.Q). The first two pages of the three-page Diagnostic Analysis Form can be completed at the initial field view with the Railroad, but it must be completed prior to the formal PUC Field View. The third page is to be completed by the DGCE/A during the Diagnostic Field View as it documents conditions to be analyzed by the Diagnostic Team in determining crossing protection. The Diagnostic Analysis Form and any and all data contained therein is strictly confidential and not subject to disclosure or discovery or to be admitted into evidence in any federal or state court proceeding. This form is to be completed by only the DGCE/A.

The Diagnostic Analysis Form is required on all at-grade highway-railroad projects that require an Application to the PUC.

In accordance with the Standard Operating Procedures for a Grade Crossing Safety Project, preparation of this form should begin at Step B.4 and be completed no later than Step B.7, and for a highway-bridge project, begin at Step B.2 and be completed by Step B.4.

G. Data for PUC Application. Prepare data for PUC Application and assemble any plans and/or location maps to be attached to the application as Exhibits. This may include the detailed circuit and situation plans. If the circuit and situation plans are submitted with the Application, the PUC can issue an approval of the plans when they issue the Order/Secretarial Letter. If this project is on a local road, the municipality's resolution must be attached as an Exhibit to the Application.

The following data is required for each crossing when completing a PUC Application for a Safety Project:

- 1. Crossing location to include county, township, borough or city, SR, section, DOT number, stations, or segment and offset, and local name of the highway.*
- 2. Purpose of the proposed improvement and estimated cost.
- 3. Program on which listed and tentative letting date.
- 4. Name of Railroad (owner and/or operator) and number of tracks.
- 5. Existing type of roadway on the approaches to the crossing. Include the width and type of paving and shoulders.*
- 6. Present character of alignment and grade on approaches to crossing. Specify radius to the nearest 10 m (30 ft) and percent of grade on each approach.*
- 7. Existing type and width of paving in the track area.*

- 8. Existing type of signs or signals being used for protection at and in advance of any at-grade crossing.
- 9. Proposed type of roadway construction on the approaches to the crossing. Include the width and type of paving and shoulders.*
- 10. Proposed alignment and grade on the approaches to the crossing. Give actual radius and percent of grade proposed on each approach to the crossing.*
- 11. Statements concerning the necessity for additional or other types of protection required at the proposed crossing. Include the extent required and reasons for such requirements.
- 12. Give volume, class and operating speed of railroad traffic using the crossing.
- 13. Give the present and future (design year) Average Annual Daily Traffic (AADT) and percent of trucks. Give the present legal speed and proposed design speed for vehicular traffic using the crossing.*
- 14. Can any existing crossing be abolished? If so, explain fully. Indicate on Index Map the portions of existing highways to be abandoned and/or vacated.
- 15. If a bridge is involved, do the vertical and horizontal clearances comply with PUC regulations? If not, what are the minimum vertical and horizontal clearances provided? Refer to Publication 15M, Design Manual Part 4, *Structures*, Volume 1, Section 2.3.3.4, Railroad Overpass.
- 16. Will there be a signalized highway intersection within 200 feet of any at-grade crossing on the project? See Section 3.08.
- 17. Names and addresses of the local municipality, the county, all public utilities and municipal authorities within the tentative PUC jurisdiction area. The DGCE/A shall submit to the District Utility Unit a project description and location map of the project requesting a current listing of effected utilities within the project area. This listing will be used in the preparation of the Certificate of Service in the Application to the PUC.
- * Information usually shown on the plans. If not shown on plans, provide details. (See Appendix C, PUC Application Template.)
- **H. Prepare PUC Application.** The DGCE/A or CO GCU prepares the PUC Application. Refer to Appendix C for a sample PUC Application form and examples of PUC Application captions.

The Certificate of Service (parties of record), which is made a part of the formal PUC Application, shall include names, titles, and mailing addresses for parties in the following order:

- Railroad (Owner/Operator)
- County
- Municipality
- Utilities

A true copy of the PUC Application shall be served to all parties listed on the Certificate of Service.

The identical caption used on the Application must also appear on the transmittal letter to the PUC, Verification statement sheet, and the Certificate of Service sheet. The caption should include a brief description of the project, owner/operator of the railroad, DOT #, municipality and county. If necessary, the railroad owner and operator are to be listed in the Certificate of Service and in the caption. For various examples of captions refer to Appendix C. For only Section 130 projects, it is required that the following statement in the caption be bold and italic as shown in Appendix C: *in accordance with the Federal Grade Crossing Program*.

1. Filing and Routing of PUC Application. The DGCE/A, if certified, shall complete the PUC Application for the District's signature and filing. The Application will include the Verification statement, Certificate of Service, and appropriate Exhibits. File appropriate copies with the PUC and parties of record listed on the Certificate of Service. If the DGCE/A is not certified, the DGCE/A shall transmit a draft copy of the Application, location map, and any appropriate plans and/or resolutions to the CO GCU electronically. The CO GCU will complete the Application, file with the PUC, and transmit appropriate copies to the parties of record.

All Application submissions to the PUC must include a cover letter addressed to the Secretary of the PUC transmitting the signed original Application which shall include any Exhibits (resolutions, plans, location

maps, etc.). The preferred method for filing the PUC Application will be through the PUC's eFiling system, refer to Chapter 2, Section 2.06 for additional details and procedures. Copies of the cover letter and Application with Exhibits are to be sent to either the District Executive or Chief of RWUS (depending whether the DGCE/A or CO GCU is filing the Application) and the OCC. All those listed on the Certificate of Service (parties of record) are to receive one copy of the cover letter and Application with Exhibits. Refer to Appendix A for an example of the cover letter addressed to the PUC Secretary. The Certificate of Service must be signed and dated by the individual making and mailing true copies of the Application to all parties. A courtesy copy of the eFiled submission and the subsequent acknowledgement with docket number shall be sent to the Supervisor of Rail Safety Engineering Section, PUC.

For scanning purposes the original signed cover letter and Application with Exhibits to be filed with the PUC are to in "loose leaf" form without staples, permanent glued/taped bindings, or spiral binders. If practical use only paper clips, binder clips, and/or rubber bands to keep the original intact. The use of staples or bindings for the additional copies is permitted.

- **2.** Timing. The filing of the PUC Application for highway-rail crossing safety projects should occur no later than December/January of the current FFY. This process of filing applications early in the year will, in most cases, allow for construction of the safety project to occur during the summer/fall of the same FFY.
- **I. PUC Assigns Docket Number.** Once the PUC receives the Application, they will send out an acknowledgement of receipt which will include the assigned PUC docket number (e.g., A-00123456, A-2010-1234567).
 - 1. Timing. Providing that the Applications are filed no later than the months of December/January, a PUC Field Conference (Diagnostic Field View) should occur no later than the February/March time frame.
 - 2. PUC Field Conference (Diagnostic Field View). The DGCE/A will receive notification from the PUC via a letter as to the date and time of the PUC Field View/Conference; PUC field conference attendance is require by the DGCE/A. The CO GCU and any other Department personnel should attend as applicable. The PUC classifies Diagnostic Field View as a Field View/Conference. The term Diagnostic Field View is used to satisfy 23 CFR. The purpose of the Diagnostic Field View is to discuss the proposed improvements/alterations to the at-grade crossing. Should the "knowledgeable" parties of record come to an agreement and no ROW needs to be appropriated, the PUC will issue a Secretarial Letter.
 - a. Railroad Pavement Markings. See Publication 111, *Traffic Control Pavement Markings and Signing Standards*, Pavement Markings Standard (TC-8600), Reference Note 2 on sheet 7 of 13, which reads as follows:

Center the railroad symbols within each lane on all paved approaches to highway-rail grade crossings. In those situations where there is inadequate space for the pavement markings or where the installation would create operational problems with turning lanes or special conditions, pavement markings are not required providing an engineering study indicates that other traffic control devices provide suitable warning and control.

A guide for determining the need for pavement markings can be found in the MUTCD, Part 8, Section 8B.27 Pavement Markings.

b. Develop Situation Plan. If the PUC requires the submission of a detailed situation plan for the project for their review and approval, it will be stated in the ordering paragraphs in the Order/Secretarial Letter. The DGCE/A and a representative of the Railroad work together in developing the situation plan. Refer to the MUTCD for appropriate distances for the placement of warning devices. If the situation plan is developed prior to the PUC Field Conference, such plan can be attached to the PUC Application as an Exhibit.

In the event that any issue cannot be resolved at the PUC field conference, the project will proceed to a hearing. In that case, a Step 3 submission will be required. Project development then must follow the Step 3 submission process as identified in Chapter 2, Section 2.02. It may also be possible to withdraw the Application and avoid the need for a hearing.

The first two pages of the three-page Diagnostic Analysis Form found in Appendix B are to be completed by the DGCE/A prior to attending at the Diagnostic Field View. The third page is to be completed by the DGCE/A during the Diagnostic Field View as it documents conditions to be analyzed by the Diagnostic Team in determining crossing protection.

J. PUC Order/Secretarial Letter. The PUC issues an Order/Secretarial Letter approving the project. This document outlines each party's responsibilities, costs, and future maintenance responsibilities. The Department must ensure that the PUC includes the following ordering paragraph in the Order/Secretarial Letter:

All costs, which are to be reimbursed by the Department of Transportation consistent with this letter, shall be reimbursed pursuant to the provisions of the 23 CFR Parts 140, 646. The aforesaid federal reimbursement shall not supersede, delay or, in any manner, postpone the effect of any paragraph contained in this or any related Secretarial Letter or Order.

The PUC will not include any paragraph in the Orders/Secretarial Letters noting the need to include applicable state prevailing wages should they apply. For more information, see Appendix H.

Immediately upon receipt of the PUC Order/Secretarial Letter, it is imperative that the DGCE/A and the CO GCU complete a thorough review of the issued Order/Secretarial Letter to assure that what was agreed upon at the Diagnostic Field View has been correctly stated. If not, the OCC needs to be notified immediately so that a petition can be filed within 20 calendar days with the PUC requesting modification to the Order/Secretarial Letter.

K. Project Agreements. For highway/rail safety projects, a State-Railroad reimbursement agreement will be required.

The following provides a flow process for development of an agreement:

- 1. For State-Railroad Agreements, the DGCE/A prepares the Pre-Approved Agreement for design and construction activities, and submits it to the CO GCU and OCC for review prior to submission to the Railroad for signature. Once all applicable funding is approved for the railroad phase, begin preparing the appropriate pre-approved construction reimbursement agreement. The reimbursement agreement is based on a detailed cost estimate provided by the Railroad. Any modifications to the Pre-Approved State-Railroad Agreements must be reviewed by the OCC to determine if the pre-approved status of the agreement has been stripped. If OCC determines that the pre-approved status no longer applies review by the Office of Attorney General and the Office of General Counsel is required. Refer to Chapter 7, Section 7.04A.1.
 - a. Obtain Signatures and Enter into LATS. Once the DGCE/A receives a copy signed by the DE, or someone with signature authority, and the Railroad, log the agreement in the LATS system by entering in the appropriate information and printing out the correct routing sheet to be attached to the front of the agreement. See Appendix E, Legal Approval Tracking System (LATS).
 - b. Prepare a SAP-7. Prepare a SAP-7 encumbrance document encumbering the design and/or construction funds for the project to be attached to the Pre-Approved Agreement before distributing to the OCC.
 - c. Transmit Agreement and Encumbrance Document to Legal. Attach the routing sheet printed out from LATS and SAP-7 document to the Pre-Approved Agreement and send to OCC for final processing and execution.

- L. Issue a Notice to Proceed for Design Letter to the Railroad. If certified, the DGCE/A is to issue a Notice to Proceed (NTP) for Design letter to the Railroad. If the DGCE/A is not certified, the CO GCU will issue an NTP for Design letter to the Railroad. A courtesy copy of this letter is to be sent to the PUC (attn: Supervisor of Rail Safety Engineering Section), and depending on who issues the letter a courtesy copy is to also be sent to the DE (attn: DGCE/A) or Chief of Right-of-Way and Utilities Section (RWUS). The letter needs to make reference to the PUC Order/Secretarial Letter and that the design shall be in accordance with the latest edition of the MUTCD. Refer to an example NTP-Design letter in Appendix A.
- **M.** Circuit Plans. If the PUC requires the submission of a detailed circuit and situation plans for the project for their review and approval, it will be stated in the Ordering paragraphs in the Order/Secretarial Letter. The Railroad may submit a copy of the plans and estimate to the DGCE/A prior to making a formal submission to the PUC and all parties of record. This must be completed prior to Section 3.05O.
- N. Prepare Traffic Control Plan. If a full detour or lane restrictions are necessary for the construction of the project, the DGCE/A obtains Detour / Maintenance and Protection of Traffic Plan. The plan is prepared by Railroad or District. If the Railroad is required to prepare a detour plan or make reference to a figure in Publication 213, *Temporary Traffic Control Guidelines*, then the Railroad must submit appropriate plans to the DGCE/A for submission to the District Traffic Unit (DTU) for approval. If agreed upon at the early stages of the project that the District would prepare, implement and maintain the necessary detour or lane restrictions, then the DTU will prepare the necessary plans.
 - 1. Approve Traffic Control Plan. The DTU reviews and approves the traffic control plan(s). If a full detour is required, it is necessary that the DGCE/A provide proper notification along with a copy of the approved detour plan to the District Special Hauling Permits Office as well as the District Public Relations Office (Press Office) for proper coordination. This should be done at least two weeks prior to start of work (construction).
- **O. PUC Plan Submission and Approval.** The Railroad is required to submit one copy of the detailed cost estimate and detailed circuit and situation plans via a cover letter addressed to the PUC Secretary. A copy of the same is to be submitted to the Supervisor of Rail Safety Engineering Section, Chief of RWUS, OCC, and all those listed on the parties of record.

After the 20 calendar day waiting period, if the PUC receives no objections to the plans by the parties of record, and the PUC accept the plans as submitted, the PUC will issue an approval letter to the Railroad. A copy of this approval letter will be provided to all parties of record.

P. Reimburse Railroad. Upon receipt of an invoice from the Railroad, reimbursement for the design cost shall be provided as outlined in the Pre-Approved State-Railroad Agreement (see 3.04A.2 and 3.04A.3).

3.06 TYPES OF CONSTRUCTION CONTRACTS AND BIDDING PROCESS

As outlined in 23 CFR § 646.216 when using federal funds, before authorization can be issued either to advertise the physical construction for bids, or to proceed with force account construction for Railroad work, or for other construction affected by Railroad work, the following must be accomplished:

- The plans, specifications and estimates must be approved by PUC.
- A reimbursement agreement must be executed between the Department and the Railroad. However, cost
 for materials stockpiled at the project site or specifically purchased and delivered to the company for use
 on the project prior to the approval of the executed agreement may be reimbursed on progress billings.
- **A.** Contracts. Several types of construction contracts, with required documentation for each, allow physical construction to be accomplished:
 - 1. Bid Contract
 - a. Copy of proposal and bid document from Railroad.

- b. Statement from Railroad indicating why the Railroad cannot provide materials and/or do the work plus the advertisement of bid or names of at least three contractors who were required to submit a bid.
- c. Copies of bids from at least two contractors with "Certification of Bid Opening" form along with the signed and dated "Certificate of Independent Price Determination" forms.
- d. Request from Railroad to award contract to low bidder.

See Section 3.06B for further details pertaining to guidelines for solicitation of bids.

2. Continuing Contract

- a. Copy of contract signed by both Railroad and contractor. The method of acquiring contractor as previously approved by the Department.
- b. Cost estimate from contractor to complete project.
- c. Department (District) analysis of cost estimate and concurrence.

3. Force Account

- a. Detailed cost estimate from Railroad.
- b. Department (District) analysis of cost estimate and concurrence.
- 4. Lump Sum Contract. Any mutually agreed upon amount (See 23 CFR § 646.216 (d) (3)).

B. Bidding Process

- 1. Railroad Solicits Bids. This task only applies when the Railroad does not have the resources or manpower to do the construction and they do not have a continuing contract with an approved contractor.
- **2.** Guidelines for Solicitation of Bids. The following information is provided to clarify the bidding procedures and requirements, which must be followed by all Railroads that participate in any federally funded programs (such as the Section 130 Safety Program) with the Commonwealth of Pennsylvania. Adherence to this information will avert any adverse audit findings concerning the solicitation of bids.
 - a. Items which Require the Solicitation of Bids. Materials and construction services costing in excess of \$10,000 which are solicited by the Railroad from any one source for each Federal-aid project requires competitive bidding. This limit is assigned to each Federal-aid project to determine whether a specific item is of major or minor cost to that particular project. For example, two Federal Project Numbers (FPNs) are assigned to each Railroad's Master Agreement for the "Crossbuck Program." One FPN is assigned to all crossings on local roads and one FPN is assigned to all crossings on the state highway system. Costs are examined by the Department auditors on an aggregate basis for each FPN. For example, if the Railroad purchased \$11,000 worth of materials from Supplier X and installed the same at 30 local road crossings under a Master Agreement, then the Department's auditors would expect to discover documentation in the files that this material would have been obtained through the competitive bidding process. Likewise, if the Railroad contracted with Contractor Y (one source) to supply and install \$11,000 worth of completed crossbuck signs, posts, and foundations at ten crossings on the state highway system, it would be expected that these materials and services would have been obtained through the competitive bidding process.

Other agreements entered into with the Commonwealth for the installation of active warning devices (flashing lights and gates) and for the installation of high-type surfaces have FPNs assigned on a crossing site by site basis and therefore, bidding requirements are imposed at each crossing site and not on an aggregate basis. If, for example, a signal system for a crossing consisting of masts and flashing lights were supplied by Company Z (one source) at a cost of \$11,000, then it is expected these materials would

have been obtained through the solicitation of bids.

Procurement of rental equipment, regardless of the costs, will continue to require solicitation of bids or an acceptable alternative.

- b. Waiver of Solicitation of Bids. The following situations may arise and do not require solicitation of bids:
 - 1) Existing Continuing Contract at Reasonable Cost. If the Railroad wishes to use an existing continuing contract with a supplier or contractor to supply or install warning devices, the solicitation of bids is unnecessary. If the Railroad elects to use a continuing contract for construction, verify contractor is approved by the CO GCU/District in accordance with 23 CFR § 646.216(f)(1). State wage rates do apply. It is required, however, that a copy of this contract be available for audit and that it was entered into under a competitive bidding process or has been predetermined by the Department to be reasonable.
 - 2) Items of Minor Cost. Any material or work (excluding rented equipment) provided by one source and costing less than \$10,000 does not require the solicitation of bids. It should be noted, however, that:
 - It is unacceptable to seek more than one source of supply or service for like items in an effort to avoid the competitive bidding requirements.
 - Costs are required to be reasonable.
 - No conflict of interest exists between the Railroad and its suppliers.
 - Any unusual relationship between Railroad and supplier that is evidenced during audit will be thoroughly examined to determine the propriety of the costs.
 - 3) Railroad Force Account Work. If the Railroad uses its own forces to construct the project, then state wage rates do not apply.
 - 4) Railroad Standards Require use of Proprietary Items. In the instance where the Railroad has, for example, requirements or standards for flashing light warning signals which can only be met by one manufacturer, then it is acceptable to use that brand of system without the solicitation of bids provided that there is no deviation in cost between various sources of supply or there is only one source of supply. It is essential, however, that documentation exists in the file to support this contention. The Railroad is not expected to solicit bids for an unspecified brand of signal system. For example, if every installation on the railroad line is Brand X and Brand X is supplied by a variety of sources at different costs, then bids must be solicited.
 - 5) Sole Source of Supply. When required materials or services are known to be provided by only one supplier or contractor, then it is acceptable to use that source without soliciting bids.
- c. Procedures for Soliciting Bids. The DGCE/A should review the Railroad's proposal. Once accepted, the Railroad submits the proposal to at least three contractors. The DGCE/A should never recommend a contractor, but a Department-approved listing of contractors can be supplied to the Railroad.
 - 1) The Railroad must then receive at least two bid replies.
 - 2) The Railroad must require each bidder to complete a copy of the attached "Certificate of Independent Price Determination" form (see Appendix B, Standard Forms) and to submit this with the bid to the Railroad. This certificate is self-explanatory and certifies that the bidder independently arrived at his bid. Bid proposals which include these certificates shall all be submitted to the Department for approval of the low bid. The DGCE/A working with the Railroad reviews all bid documents prior to advertising the bid.

- 3) When a Railroad solicits bids, they set the location, date and time when the bids are to be received and opened. Bids received subsequent to the scheduled bid opening are not to be considered. When requesting approval of the qualified low bidder, the Railroad shall complete, sign, and submit the attached "Certification of Bid Opening" form (see Appendix B, Standard Forms).
- 4) The contract entered into between the Railroad and the lowest qualified bidder shall include completed copies of the state and federal Non-Discrimination and Equal Employment Opportunity Clauses. The DGCE/A or the CO GCU will verify that these attachments have been included.
- 5) The Railroad must furnish the Department with a statement that the solicited materials are not available from its stock and/or that the solicited services cannot be provided by Railroad forces. This statement must be included with the bid proposals forwarded to the Department.
- 6) Subject to applicable state wage rates. Refer to Appendix H, Standards and References, Applicability of Prevailing Wage Rates and how it impacts Section 130 Projects and Highway/Bridge Projects involving railroads.
- d. Solicitation of Bids for Turnkey Projects. It is permissible, subsequent to design authorization by the Department, to solicit bids for any combination of preliminary engineering, materials or construction services required for the project. However, costs for design work must be tabulated separately from the construction costs of the project. In addition to advising prospective bidders of the need to separate design costs from construction costs, the Railroad must provide the prospective bidders with all recommendations made by the Diagnostic Team and the requirements set forth in the *Manual on Uniform Traffic Control Devices* (MUTCD). Under no circumstances may any construction activities be allowed to progress without authorization by the Department.

This guideline is intended to supplement the provisions of 23 CFR § 140.646. Any Railroad not in possession of the applicable CFR requirements can download them from the United States Government Printing Office's internet site: http://www.gpoaccess.gov/nara/index.html or contact the DGCE/A or CO RWUS.

- **C.** Railroad Recommendation. If the Railroad lets the contract, the Railroad is required to submit the following documentation to the DGCE/A in order to receive the DGCE/A or CO GCU approval of low bidder:
 - Certificate of Bid Opening Form (original) completed and signed by the Railroad. See Appendix B.
 - All copies of the bids received from the contractors including their Certificate of Independent Price Determination form, completed by each contractor. See Appendix B.
 - Statement in Railroad's cover letter transmitting the above items indicating that they do not have the manpower or resources to do the work.
- **D. Bid Approval.** ADE-Design (or designated representative) approves the lowest bidder and issues the approval letter to the Railroad, if District is authorized. A copy of this letter is to be sent to the Chief of RWUS. See Appendix A for example of Concurrence in Award letter. If not authorized, Director, BOPD approves the lowest bidder and issues the approval letter to the Railroad.

Before the NTP letter can be issued, the District must assure the following are complete:

- If the estimated cost/bid is greater than 15% over PMC approved amount, the District is required to submit a Program Action for approval.
- Federal obligation has been approved to cover all eligible project construction costs.

- State project number has been approved to cover all eligible design costs and Department construction inspection costs.
- Draft of letter to Railroad providing NTP with construction and attached construction requirements.

3.07 CONSTRUCTION

A. Procedure for Issuing Construction Notice to Proceed (NTP). The ADE-Design (or designated representative), if District is authorized, or Director, BOPD issues the NTP for Construction letter to the Railroad – (state and local roads) for construction by Railroad forces or contractor approved through the bidding process. Verify Form D-4232 and reimbursement agreement are approved.

A courtesy copy of the letter is to be sent to the PUC (attn: Supervisor of Rail Safety Engineering Section), and depending on who issues the letter a courtesy copy is to be sent to the DE (attn: DGCE/A) or Chief of RWUS. This will help monitor the safety program and provide assurance that the projects are being advanced.

The letter needs to make reference to the PUC Order/Secretarial Letter and that the installation of the protective devices must comply with Part 8 of the MUTCD. Refer to example in Appendix A.

The BOPD Director will issue the NTP for Construction letters until such time as each District has requested and is approved to provide the above. The CO GCU personnel will perform periodic QA reviews for compliance with established policies and procedures (see Chapter 1, Section 1.05A). Failure to follow established procedures could jeopardize state and federal funds that are available to the Districts.

B. Construction Notification. The Railroad needs to notify the PUC and all parties of record of their proposed start date for construction. The PUC Order/Secretarial Letter typically indicates that at least a ten day notification be given prior to start of construction. If a full detour is involved with a project this notification should occur at least two weeks prior to start of construction so as to provide the District Press Office and District Special Hauling Permits Office proper notification. An earlier notification request can be incorporated into the PUC Order/Secretarial Letter.

Railroad-Highway Crossing Projects Construction Requirements:

- The DGCE/A must be notified two weeks in advance of the actual start date of construction.
- The Railroad shall notify the Department (through the DGCE/A) of the Railroad's work order number assigned to the project prior to beginning construction.
- If the Railroad intends to submit partial billings during the time the project is under construction, the Railroad will be required to furnish the Department weekly labor and material reports.
- The Department (through the DGCE/A) and the PUC must be informed when the project is completed.
- The Railroad's final billing shall include time sheets, material invoices, equipment records and other pertinent data to substantiate such billing and follow the guidelines as outlined in project agreement.

The Railroad shall submit all invoices for processing and payment in accordance with Chapter 6.

- C. District Press Office. The DGCE/A shall provide proper notification and documentation, including applicable detour plans, to the District Press Office and District Special Hauling Permits Office regarding the proposed start of construction date and schedule.
- **D.** Advance Notice Signs. The DGCE/A is to verify that the Railroad has placed the proper advance notice signs for projects having detours. These signs should be in place at least one week in advance of construction start date and the signs should indicate that the roadway will be closed on (month/date).
- E. Pre-Construction Meeting. Depending on the complexity of the project or if there are multiple parties

involved in doing the work requiring coordination of work activities, then a Pre-Construction meeting is recommended. The DGCE/A conducts the Pre-Construction meeting, held with the Railroad and/or its contractor, at the site of the project prior to the start of construction.

- Construction Inspection. The DGCE/A, Construction Unit Inspector, or the Department approved consultant shall inspect the construction activities for a minimum of 30% of the construction duration. A diary of construction activities, number of employees, equipment, etc. should be noted and retained in the project file for use in reviewing the Railroad's invoices or for auditing purposes, if required. Inspections at the project site should be coordinated to occur during times when major construction activities are going to occur. For example: placement of mast foundations for the warning devices, erection of the masts/cantilevers, paving operations associated with open trenches, and installation of new crossing surfaces with associated approach paving operations. These inspections are to ensure that the construction activities are in accordance with the approved construction plans and Department standards. Where projects involve the installation of new crossing surfaces, the DGCE/A needs to ensure that the Railroad does not elevate their track structure at the crossing to the point where it will cause an unsafe condition for the traveling public (ex. hump condition), and that all approach paving materials and the installation of such paving materials are in accordance with Department standard specifications. Project inspections shall also include verification that steel and iron products used meet the Buy America and BABA requirements as outlined in Chapter 7, Section 7.07D and Section 7.07E. A minimum of one steel or iron product per project will be checked to verify compliance. Major items that would be expected to be verified include, but are not limited to, rail, signal masts, and bungalows.
- **G. Review and Payment of Invoices.** The Railroad may elect to submit construction progress invoices seeking reimbursement as established by the Pre-Approved State-Railroad Agreement. The Railroad shall submit all invoices for processing and payment in accordance with Chapter 6. The DGCE/A will be required to review all invoices for accuracy prior to it being approved for further processing and payment through SAP.
- **H. Construction Completed.** The DGCE/A or Railroad is required to notify the PUC when construction is complete. This will be spelled out in the PUC Order/Secretarial Letter indicating which party is responsible for notifying the PUC as well as providing a completion date for the work to be completed at the crossing. An example notification letter can be found in Appendix A.
- **I. Final Inspection by PUC.** The PUC will schedule a final inspection at the crossing. All parties of record will receive notification as to the date and time the final inspection will take place. The DGCE/A is required to attend the final inspection conducted by PUC.
 - 1. Unresolved Issues. At the final inspection, the PUC will review the work completed, test the equipment, and assure that all improvements have been made in accordance with the approved plans, MUTCD, and PUC Order/Secretarial Letter. If there are any outstanding items to be completed, the PUC will ask that they be completed in a timely manner. Once completed, the necessary party needs to notify the PUC that the work has been completed.
 - 2. Active Warning Devices. Once active warning devices are installed and accepted by the PUC, the maintenance of these signalization systems is typically the responsibility of the Railroad. This is consistent with the Department's policy on other traffic signals which require the local government to maintain once installed. However, maintenance responsibility is ultimately assigned by the PUC.
 - 3. Closing. The PUC will issue a final Secretarial Letter to all parties of record closing the case.
- **J. Final Bill.** The Railroad shall submit the final invoice for processing and payment in accordance with Chapter 6. The DGCE/A will be required to review the final invoice for accuracy prior to it being approved for further processing and payment through SAP. The DGCE/A shall also ensure the Railroad has submitted the appropriate Certificate(s) of Compliance for any steel and iron products in accordance with the Buy America and BABA requirements.
 - 1. Payment to Railroad. Comptroller processes final bill/invoice and Treasury makes payment to the Railroad.
 - 2. Lump Sum Payments to Railroads. Lump sum payments are useful in certain cases since they involve

much less paperwork on the part of the Department and the Railroad. In those cases where the work involves installation or improvements of grade crossing warning devices and/or installation of grade crossing surfaces, and where the work is performed by the Railroad's own forces, lump sum payments, in lieu of actual costs, can be made to the Railroad regardless of the costs involved. For all other crossing work, there is a \$100,000 upper limit on lump sum payments. See 23 CFR § 646.216 (d) (3).

- **3.** Cost Analysis. The DGCE/A compares the final cost of the completed project to the original Railroad estimate or project agreement.
 - a. If the total project cost is greater than the encumbrance document established for the project agreement, then additional funds will need to be programmed by the DPE and a SAP-8 (adjustment) will need to be completed by the District Fiscal Office. If this is the case, the final invoice will not be able to be processed for payment until the SAP-8 is approved by the Comptroller Operations, Bureau of Payable Services Office.
 - b. If final cost is less than programmed amount, move savings to another project.
- **K.** Prepare Closeout Certification. Upon project completion and payment of final invoice, the project is to be closed out. The DGCE/A will need to have the WBS/SPN closed by the District Fiscal Office and DPE. Once that has been completed, the DGCE/A can prepare a Certification of Railroad Agreement Completion form found in Appendix B and submit to the CO GCU for final processing and submission to Comptroller Operations. This certification adjusts the federal funding estimate to match the actual cost of the completed project. It is no longer required that an audit be completed before closing out the project. The Chief of the RWUS approves and distributes the closeout certification for all CO GCU filed PUC Applications and District filed PUC Applications. All projects are to be closed out within three months of the date of submission of the final invoice to Comptroller Operations.
- L. Inventory Update. In order to ensure that the Federal Railroad Administration's (FRA) US DOT National Crossing Inventory File (National File) is maintained with up-to-date crossing data, the DGCE/A is required upon completion of all projects to use GCEDMS and update the crossing inventory data and add new photographs of the crossing showing the new facilities. The Department's procedure is to update, store, and transfer all US DOT Crossing Inventory Form information to the FRA through GCEDMS for all public railroad crossings. Refer to Chapter 8, Section 8.03 for additional details and procedures.

3.08 TRAFFIC SIGNALS WITH RAILROAD PRE-EMPTION

Emphasis has been directed toward the design of traffic signal pre-emption at nearby railroad crossings with active warning devices. For such circumstances, close coordination must occur between the DGCE/A and the District Traffic Unit. The Railroad must also be included as early as possible in the signal design process. If pre-emption is to be added to a grade crossing or there is a need for a timing change, an Application to the PUC will need to be made if it involves any modification to the Railroad's warning devices. Section 8C.09 of the MUTCD provides some guidance on the subject. Publication 148, *Traffic Standards – Signals*, TC-8800, and Publication 149, *Traffic Signal Design Handbook* also provide guidance on the subject.

As per MUTCD Section 8C.09 Traffic Control Signals at or Near Highway-Rail Grade Crossings, if a highway-rail grade crossing is equipped with a flashing-light signal system and is located within 200 feet of an intersection or midblock location controlled by a traffic control signal, the traffic control signal should be provided with preemption in accordance with Section 4D.27.

Section 130 Safety funds are only to be used for the flashing-light signal work and preemption wiring system up to the common junction box for the tie-in with the traffic control signal. These funds shall not be used for any part of the traffic control signal work. However, other sources of Federal-aid funds may be available for the traffic control signal work and the preemption wiring system up to the common junction box for the tie-in with the flashing-light signal system for the highway-rail crossing, subject to eligibility of those funds. Examples include NHPP, STP, HSIP, and TAP funds. Other Federal-aid funds may be used for the entire project (flashing-light signals, traffic control signals, and associated preemption wiring). With all highway-rail safety projects, in order to obtain approval of the safety funds from FHWA the criteria outlined in Section 3.03A will apply.

If using more than one funding source the D-4232 will need to reflect separate state project numbers (SPN's) each with the appropriate program code.

3.09 GRADE CROSSING SAFETY PROJECT DESIGN AND CONSTRUCTION PROCESS FLOW CHART

See Appendix D.

CHAPTER 4 HIGHWAY AND/OR BRIDGE PROJECT PROCESS

4.01 INTRODUCTION

This chapter provides a step-by-step commentary on the Department's Standard Operating Procedure (SOP) for developing highway and/or bridge projects involving railroad facilities (see Appendix D, Standard Operating Procedures, Flow Charts and Tracking Charts). The purpose of this chapter is to help Department project managers expedite the development of highway and/or bridge projects that involve railroad facilities.

The DGCE/A should be involved in any preliminary discussion on projects that include highway-railroad crossings in order to develop a plan of action for addressing highway-railroad crossing related issues. Any alteration to the crossing will require the involvement of the PUC, which will be coordinated by the DGCE/A. Alterations to the crossing include, but are not limited to, widening the roadway, paving the shoulders, widening the paved shoulders, installing automatic lights and gates, and changing the surface type of the crossing. See Chapter 3, Section 3.03A for more information on a highway-railroad grade crossing that is located within the limits of or near the terminus of a project.

The use of the Department's Grade Crossing Electronic Document Management System (GCEDMS) by the DGCE/A is required for the collection, maintenance, and updating of all public crossing data; and, for the daily operations, management, data entry, and document storage for all active and future Department highway-railroad crossing safety projects (Section 130). Refer to Chapter 8 for additional details and procedures.

4.02 PROJECT DEVELOPMENT AND PROGRAMMING

On highway and/or bridge projects the DGCE/A typically functions as a specialist, assisting the District Project Manager (PM) with all highway-railroad crossing-related issues. The PM needs to involve the DGCE/A at the initial programming stage of a highway/bridge project that has the potential of having Railroad involvement. This may include impacts to an at-grade crossing, or highway under or over railroad facilities that has the potential of being within the proposed project limits.

A. Engineering and Environmental Scoping Field View (E&ESFV). The PM needs to invite the DGCE/A to all E&ESFVs for any highway/bridge project that contains railroad facilities within the proposed project limits. The DGCE/A's involvement in a highway and/or bridge project typically starts by preparing for the E&ESFV. At the E&ESFV meeting, the DGCE/A needs to identify all potential impacts to railroad facilities. In anticipation of questions that may arise at the field view, the DGCE/A gathers information about the following crossing-related issues:

- 1. The project site:
 - a. Utilities impacts (i.e., adjacent overhead lines)
 - b. Right-of-way impacts/restrictions
 - c. Traffic control considerations
- 2. Railroad(s):
 - a. Operations speeds and traffic volumes
 - b. Type and condition of existing facilities
 - c. Safety records / Crash histories
 - d. Current warning devices at a crossing
 - e. Agreements with the Department
- 3. General:
 - a. Traffic speeds and volumes
 - b. Highway geometrics
 - c. Need for design exceptions
 - d. Maintenance problems

The DGCE/A and a representative of the Bureau of Project Delivery, Highway Delivery Division, Right-of-Way and Utilities Section (RWUS), Central Office Grade Crossing Unit (CO GCU) will participate as members of the scoping team, helping the team to determine:

- 1. Jurisdictional limits
- 2. PUC submission requirements
- 3. Crossing-related stakeholders
- 4. Possible design exceptions
- 5. Crossing-related costs
- 6. Project scope
- 7. Project schedule implications

The scoping team collaborates in developing a comprehensive scope of work and cost estimate for the project based on comments and recommendations provided at the field view.

- **B.** Development of Scope of Work and Independent Price Proposal. The DGCE/A shall be involved in the preparation of the Department's scope of work and manhour estimate with respect to the railroad tasks only. These Railroad tasks are associated with the consultant's responsibilities for the design of the highway/bridge project.
 - 1. Preparation of Scope of Work and Independent Price Proposal for Railroad Tasks in ECMS. The DGCE/A, based on the E&ESFV, shall provide the PM with the necessary WBS codes for Grade Crossing/Railroad Activities, with specific details clearly defining the consultants and DGCE/A responsibilities, Railroad requirements for entry onto property, required Railroad and PUC coordination, meetings, and consultant deliverables, to be included in the Scope of Work in ECMS. Along with this, the DGCE/A shall provide a manhour estimate for those Railroad tasks to be performed by the Department's design consultant. Below is a listing of current active WBS codes for Grade Crossing/Railroad activities.
 - a. 2.9.2 Grade Crossing Activities
 - b. 2.9.2.1 Railroad Coordination
 - c. 2.9.2.2 Filing of PUC Application
 - d. 2.9.2.3 Field Conference
 - e. 2.10.9 Railroad Activities
 - f. 2.10.9.1 Railroad Coordination
 - g. 2.10.9.2 PUC Hearing
 - h. 2.10.9.3 PUC Secretarial Letter/Order
 - i. 2.10.9.4 PUC Approval of Construction Plan
 - 2. Short Listing and Final Ranking of Design Consultants. The DGCE/A is to be involved in any scope clarification meetings with the design consultants. This is needed to clarify what tasks the DGCE/A and the design consultant will be responsible for. The DGCE/A shall also be involved in the review of the design consultant's technical and price proposals.
- C. Authorization of Preliminary Engineering for Railroad Phase. A PMC request needs to be completed by the DGCE/A and PM and submitted to District Programming Engineer (DPE) for processing and approval by PMC. An appropriate amount should be programmed based on the Railroad's estimated preliminary engineering costs. After obtaining PMC approval of the project, the PM must obtain authorization from the District Executive (DE) or ADE-Design for the affected Railroad(s) to commence preliminary engineering activities. If the project is federally funded, an approved Form D-4232 containing Railroad Engineering as a line item must first be obtained from the FHWA prior to the start of any work. For project schedule and quality control purposes, it is important that the PM

verify the completion of this task.

1. Form D-4232 Processing and Approval (Preliminary Engineering). The Department and FHWA use this form, (Request for Federal Authorization), to authorize the use of federal funds for highway and bridge projects. Form D-4232 is only required for federally funded projects, not for 100% state projects. Prepare and submit for FHWA approval a Form D-4232 for the railroad phase with appropriate funds to cover railroad preliminary engineering costs that will be noted in the preliminary engineering reimbursement agreement between the Railroad and the Department on state projects or between the local municipality and the Department on local projects (refer to Section 4.09 for local highway/bridge project railroad agreement and invoice process). It provides a concise summary of project characteristics, including a description of items such as planning, programming, funding, and environmental requirements. The highway-railroad DOT number(s) is(are) to be included in the "Remarks & General Information" section of the D-4232. Also FHWA requires that a certification statement be included on the Form D-4232 indicating that the Department will comply with 23 CFR § 646.214.

Procedurally, the PM and DPE complete the form and submit it to the Program Center for review. The approved Form D-4232 is then forwarded to the FHWA for authorization. The Program Center notifies the DPE of approved funding.

- Prepare Preliminary Engineering Reimbursement Agreements. Once all funding is approved and the Work Breakdown Structure (WBS) is in "Open" status for the railroad preliminary engineering phase, prepare a Pre-Approved State-Railroad Preliminary Engineering Reimbursement Agreement for execution (see Chapter 7, Section 7.04 and Chapter 3, Section 3.05K for detailed procedures for processing and executing Pre-Approved State-Railroad Agreements). Contact the CO GCU to obtain a copy of the most current preapproved preliminary engineering agreement. Make appropriate project specific changes to the "WHEREAS" paragraphs of the agreement, fill in the appropriate blank fields at the top of page 1 of the agreement (except the Effective Date), add the Railroad's name at the top of the signature page just above the Railroad's signature line/date, and attach the appropriate Exhibits including the Railroad's force account estimate as Exhibit "A". Exhibit "B" is the audit clause and at every location where it denotes [NAME OF SUBRECIPIENT] replace it with the Railroad's name (ex. Norfolk Southern Railway Company). All agreements, except those with Norfolk Southern Railway Company and SEPTA, require the inclusion of an Exhibit "C", Contract Provisions - Right to Know Law. Do not make any changes to the "NOW, THEREFORE" paragraphs as changes would remove the agreement from pre-approved status, thus requiring review by the Offices of General Counsel and Attorney General which would add an additional 8-10 weeks to the agreement execution time. The DGCE/A shall submit a copy of the draft Pre-Approved State-Railroad preliminary engineering agreement to the CO GCU and OCC for review prior to its submission to the Railroad by the DGCE/A. For additional details pertaining to process and execution of agreements between the Department and Railroads refer to Chapter 7, Section 7.04A.
 - a. Signing of Pre-Approved State-Railroad Reimbursement Agreements by Railroad and DE. Once the DGCE/A receives original signed agreements from the Railroad, enter the agreement into LATS, generate a signature routing sheet through LATS and attach it to the agreement, and insert (if necessary) the appropriate Railroad signature authorization sheet between the agreement signature page and Exhibit "A". Forward only one complete original agreement package to the DE for signature/dates on the agreement signature page and the routing sheet.
 - b. Prepare SAP-7 or SAP-8. Have the District Fiscal Office prepare the appropriate SAP-7 or SAP-8 to accompany the agreement for submission to OCC.
 - c. Transmit Agreement and Encumbrance Document to Legal. Submit the agreement package with the SAP document attached to the OCC for execution by the Commonwealth.
 - d. Receive Original Executed Agreement. Once the DGCE/A receives the original fully executed agreement, distribute the appropriate copies and retain the original for the project files. Some Railroads require that when a copy of the executed agreement is sent to them, a signed certification statement that this is a "true and correct copy" of the agreement should be included. Refer to Chapter 7, Section 7.04A.5.d.4 for additional details.

4.03 GRADE CROSSING DESIGN

- **A.** Authorize Preliminary Engineering for Railroad(s). Authorization may be provided to the Railroad to proceed with preliminary engineering if determined necessary based on the complexity of the project and the Railroad involved.
 - 1. Secure Agreements. The securing of agreements for preliminary engineering between the Railroad and the Department may be required. If an agreement is necessary, use one of the Pre-Approved Agreements (contact CO GCU to obtain a copy). Also, see Section 4.02C.2 and Chapter 7, Section 7.04 for agreement processing procedures and for various types of agreements used between the Department and the Railroads.
 - 2. Verify Railroad Design Consultant. If the Railroad elects to use a design consultant, the DGCE/A must verify that the consultant has been approved by the Department in accordance with 23 CFR § 646.216(b)(1)(iii). Refer to Chapter 7, Section 7.06A for additional information.
- **B.** Schedule Initial Meeting with Railroad(s). Immediately after the execution of an agreement, the DGCE/A is to schedule a meeting with the Railroad(s) preferably held at the project site. This meeting is to discuss the intended scope of work for the Department project, review the project schedule, design parameters being considered, and review any applicable conceptual plans that have been prepared. Invitees to the meeting should include the DGCE/A, Railroad, CO GCU, Design Consultant (if applicable), and any appropriate District personnel (e.g. Project Manager, District Bridge Engineer). This early coordination, specifically for those projects involving bridges over railroad facilities, will allow for input, such as site conditions, railroad considerations and/or requirements, by the Railroad(s) regarding the various design parameters and alternatives/schematics/conceptual designs being considered by the Department in the early design stages of the project development. This early coordination meeting and any subsequent Project Status meeting(s) throughout the development of the TS&L plan for Department bridge projects over railroad facilities is essential in obtaining the Railroad(s) acceptance of the TS&L Submission in accordance with Publication 15M, Design Manual Part 4, *Structures*, Part A, Volume 1, Chapter 1, Section 1.9.3.3.1 (e) (13) e.

It is very important that the DGCE/A obtain a definite statement from the Railroad concerning the future status of the railroad facility, preferably in writing. All project status meeting minutes with the Railroad are to be prepared and dispersed electronically to all attendees. The DGCE/A is to retain copies of all project correspondence, including meeting minutes, in the project files and GCEDMS.

1. Forms D-4279 and D-4279A. The DGCE/A should submit Forms D-4279, [Railroad Crossing Data for Design (See Appendix B)] and D-4279A, [Railroad Crossing Data for Contractor (See Appendix B)], to the Railroads. Forms D-4279 and D-4279A represent the culmination of cooperative efforts among the Department, various Railroads and Associated Pennsylvania Constructors (APC) officials to provide prospective contractors with as much railroad crossing data as necessary for the preparation of bids. These forms request specific information about railroad operations, required horizontal and vertical clearances, licenses, and permit fees, which is needed by designers; and later by contractors for bid preparation.

Form D-4279 and Form D-4279A shall be completed by the affected railroad(s) and returned to the DGCE/A. These forms must be attached to the Project Development Checklist in ECMS by the District in order to receive the Railroad Certification from CO GCU.

When transmitting these forms to the Railroad(s), the DGCE/A should specify a due date for the return of the completed forms. The due date should be coordinated with the project design schedule to assure that the completed forms are returned before the PUC Field Conference and absolutely returned before plans are submitted to the PUC for approval.

2. Schedule Project Status Meeting(s) with Railroad(s). These meetings, preferably held at the project site, should be conducted at key milestones throughout the development of the preliminary plans (Line & Grade, TS&L, and Design Field View plans) thus affording all parties involved the opportunity to provide crucial feedback/guidance towards the further development of the final construction plans. Invitees to these meetings should include the Railroad, PM, design consultant, DGCE/A and CO GCU. It is recommended that all major issues with the Railroad be discovered and addressed to the satisfaction of the Department and the Railroad

before the PUC Application is filed with the PUC and all parties of record. DGCE/A needs to receive a signed copy of the Form D-4279 from the Railroad obtaining concurrence on the vertical and horizontal clearance requirements for the proposed project, if applicable. It provides an opportunity for the DGCE/A to verify the information requested on Form D-4279.

- **3.** Obtain Preliminary Force Account Estimate from Railroad. The DGCE/A should request receipt of a preliminary force account estimate from the Railroad(s) which should include but is not limited to engineering, protective services, crossing improvement costs, etc. This force account estimate is then used by the DGCE/A, PM, and DPE for programming purposes only.
- **4.** Railroad Approval of TS&L Plan. Submission of the TS&L Plan to the Railroad for their review and approval is required for bridge projects over railroad facilities. This is to occur prior to the Department approving the final TS&L plan. This final approved TS&L plan will be included as an Exhibit to the PUC application filed for the project.

The PUC will not include any paragraph in the Orders/Secretarial Letters noting the need to include applicable state prevailing wages should they apply. It is OCC's recommendation that the DGCE/A notify the Railroads prior to the preparation of their project estimate that the Railroads are required to ensure that any applicable state prevailing wage rates are applied. Refer to Appendix H for additional guidelines pertaining to the applicability of prevailing wage rates and how it impacts Section 130 projects and highway/bridge projects involving railroads.

- **5.** Maintenance and Protection of Traffic. The need for a detour and maintenance and protection of traffic should be discussed with the Railroad at the field view. This topic will be addressed at the PUC Diagnostic Field View.
- **C. Data for PUC Application.** The DGCE/A coordinates the preparation of crossing data for the PUC Application with the PM in several steps, which are as follows:
 - 1. Step 1 Submission. Step 1 submission is the collection of data to determine if PUC involvement is required. If PUC action will be necessary, establish tentative jurisdictional limits to be proposed to the PUC. Step 1 submission includes one set of right-of-way prints identifying the highway and/or railroad crossings within the project area clearly indicating the proposed construction.
 - **2.** Step 2 Submission. If after reviewing the Step 1 submission the CO GCU or the DGCE/A determines that PUC action is required, the DGCE/A will ask the PM to provide a Step 2 submission. Step 2 submission is the collection of enough data to allow the DGCE/A or CO GCU to prepare and file an application with the PUC (see Chapter 3, Section 3.05G and Appendix C) and prepare for a PUC Field Conference.

The Step 2 submission includes the following approved preliminary construction plans for the area within the tentative PUC jurisdiction:

- 1. Location map
- 2. Index map (showing limits of work)
- 3. Typical roadway sections (in the vicinity of the crossing)
- 4. Highway plan and profile sheets (at least 500 feet on each side of the crossing)
- 5. Preliminary structure drawings (Department approved TS&L plan) of any Railroad or highway bridge, the following horizontal and vertical clearances are to be indicated on the TS&L, if applicable.
 - a) Existing
 - b) Proposed
 - c) PUC minimum clearance requirements
 - d) Railroad minimum clearances meeting criteria provided on the D-4279 form

For at-grade highway-railroad crossings the existing elevation of each rail and the proposed finished grade of the highway at each rail must be indicated on the preliminary plans. The DGCE/A must also complete the form in Appendix B, Diagnostic Analysis Form, for any project that involves an at-grade crossing.

For highway-railroad grade separations, the existing, required, and proposed (actual) vertical and horizontal clearances must clearly be shown on the TS&L plans for the proposed structure. Refer to Appendix H and Publication 15M, Design Manual Part 4, *Structures*, Volume 1, Part B, Section 2.3.3.4 for additional details pertaining to railroad horizontal clearances. For bridges over railroad facilities the submission of the TS&L shall include a copy of the Railroad's letter of approval in accordance with Publication 15M, Design Manual Part 4, *Structures*, Volume 1, Part A, Chapter 1, Section 1.9.3.3.1 (e) (13) e.

The preliminary construction plans shall identify all existing railroad features and include references to railroad milepost and crossing DOT number assigned to the highway-railroad crossing (example: RR milepost L.I. 32.32, DOT # 123 456 A).

The preliminary construction plans and data for the PUC Application must address all appropriate items outlined in Chapter 3, Section 3.05G. As indicated in Chapter 2, Section 2.02B the Step 2 submission should also include two sets of plans for the DGCE/A or CO GCU, along with the required data from Chapter 3, Section 3.05G.

3. Prepare PUC Application. The CO GCU or DGCE/A, if certified, prepares the PUC Application. Refer to Chapter 3, Section 3.05H for additional guidance; and Appendix C for a sample PUC Application form and examples of PUC Application captions.

Identify any clearance exemptions in accordance with 52 Pa. Code Chapter 33, where the required minimum horizontal and/or vertical clearances between the track and an obstruction, as per PUC (see Appendix H), are not met. Should any exemptions to the minimum PUC clearances be sought, a special process must be followed. Under Pennsylvania law, only a Railroad can request exemptions to the PUC's minimum clearances. See 52 Pa. Code § 33.127 (b). Therefore, the project must be discussed with Railroad officials to ensure their acquiescence in the requested clearance exemptions. Copies of correspondence with the Railroad on this issue, including, but not limited to, memorandums of meetings, must be kept in the project files.

To obtain PUC clearance exemption approval, the PUC will accept a letter from the Railroad consenting to the exemption from the PUC minimum clearances. This letter must be attached to the Department's Application as an exhibit.

Refer to Appendix H for required minimum horizontal and/or vertical clearances identified by the Department and PUC

- **4.** File PUC Application. Prior to filing the PUC Application with the PUC and serving all parties of record the following must be addressed:
 - a. All major issues with the Railroad have been discovered and addressed to the satisfaction of the Department and the Railroad through early Railroad coordination.
 - b. Railroad's approval of applicable preliminary construction plans has been obtained.

The DGCE/A, if certified, shall complete the PUC Application for signature by the ADE - Design, and file with the PUC and serve copies to the parties of record listed on the Certificate of Service. See Chapter 1, Section 1.03D. The Application is to include the Verification statement, Certificate of Service, and all appropriate exhibits such as location map, letter from Railroad concurring with clearance exemption request (if needed), and applicable approved preliminary construction plans. If the DGCE/A is not certified, the DGCE/A shall transmit a draft copy of a completed Application, location map, and any applicable approved preliminary construction plans to the CO GCU electronically. The CO GCU will complete the Application and file with the PUC and transmit appropriate copies to the parties of record.

All Application submissions to the PUC must include a cover letter addressed to the Secretary of the PUC

transmitting the signed original Application which shall include any Exhibits (plans, location maps, etc.). The preferred method for filing the PUC Application will be through the PUC's eFiling system, refer to Chapter 2, Section 2.06 for additional details and procedures. A copy of the cover letter and Application with Exhibits is to be sent to either the District Executive or Chief of RWUS (depending whether the DGCE/A or CO GCU is filing the Application), and the OCC. All those listed on the Certificate of Service (parties of record) are to receive one copy of the cover letter and Application with Exhibits. Refer to Appendix A for an example of the cover letter addressed to the PUC Secretary. The Certificate of Service must be signed and dated by the individual making and mailing true copies of the Application to all parties. A courtesy copy of the eFiled submission and the subsequent acknowledgement with docket number shall be sent to the Supervisor of Rail Safety Engineering Section, PUC.

D. PUC Assigns Docket Number. Upon receipt of the PUC application, the PUC assigns a docket number to the application and issues a notification letter acknowledging its receipt. When applications are eFiled, the PUC generates an automated e-mail which includes the assigned docket number.

All correspondence between the District, CO GCU, and PUC must include the docket number when available. Visit the PUC's website at www.puc.state.pa.us to view documents submitted to and sent by the PUC for a particular PUC docket. GCEDMS also has the ability to view documents associated with an assigned docket number. See Chapter 8 for further discussion.

E. PUC Field Conference. The PUC schedules a field conference at the project site. Attendees should include PUC, CO GCU, DGCE/A, Railroad, design consultant, PM, District Bridge Engineer (if required) and all parties of record.

The purpose of the PUC field conference is to acquaint all interested parties (including the PUC) with field conditions and the proposed alterations/impacts to the railroad facilities by the highway/bridge project, and to provide an opportunity for all interested parties to comment on the project. The field conference also provides an opportunity to finalize the scope of work. The PUC will set their jurisdictional limits, refine the scope of the project, assign maintenance responsibilities, and determine if the PUC needs to appropriate railroad property. The PUC schedules the field conference after reviewing the Application.

Secretarial Letters are issued in cases of routine highway and/or railroad crossings where there is no disagreement between the parties and where no railroad property is to be appropriated. Unlike PUC Orders, Secretarial Letters are not formally voted on by the PUC Commissioners at public meetings, however, they have the same authority and force as an Order. If an agreement is reached with all parties of record and the PUC is required to appropriate railroad property, the issuance of a PUC Order will be required instead of a Secretarial Letter.

F. Prepare for PUC Hearing. If an agreement cannot be reached by all parties of record to resolve all issues at the field conference, the PUC will schedule a formal hearing. An initial hearing notice is issued by the PUC which may include Questions and Procedures (Q's & P's) (see Chapter 2, Section 2.02C.1). If the Department is the applicant or complainant, the Department is then responsible for publication of the hearing notice in a local newspaper (see Chapter 2, Section 2.02D). Depending upon the unresolved issues, the hearing may be held before or after construction. The DGCE/A and/or the CO GCU must discuss the issues to be presented at the hearing with OCC so that OCC can decide who will testify at the hearing. For all relevant information concerning the hearing, see Chapter 2, Section 2.02E. This project will now require a Step 3 submission to the PUC (see Chapter 2, Section 2.02C).

If the PUC hearing is scheduled less than twelve months before letting, the District should consider changing the letting date. It could take four to five months, at a minimum, for an Order approving the project and directing the Department to prepare final plans. This estimate is extremely conservative, and the process can take a year or more. The Department must have the PUC Order approving the project and any subsequent Orders approving construction plans and appropriating right-of-way before the project can continue.

- 1. Attend PUC Hearing. OCC, in coordination with the CO GCU and the DGCE/A, will determine who will testify at the hearing and whether or not any other witnesses or Department personnel should attend the hearing.
- 2. Recommended Decision Issued. After the hearing is held, the Administrative Law Judge (ALJ) may

request that the parties file briefs. The ALJ will then issue a Recommended Decision based upon the record and the law. The Recommended Decision is not a final Order.

- **3.** Review Recommended Decision. The DGCE/A and the CO GCU must review the Recommended Decision immediately upon receipt and notify OCC if the Recommended Decision is not satisfactory so that OCC can prepare and file Exceptions. Exceptions must be filed within 20 calendar days after the Recommended Decision is issued, therefore, DGCE/A input within ten calendar days of the date of the Recommended Decision is required.
- **4.** PUC Order. The PUC will review the evidence, briefs, the Recommended Decision, Exceptions and Reply Exceptions and will adopt an Order at a public meeting. The Order will be adopted and mailed to the parties after it is entered. Once the Order approving the project is entered, the Department may proceed with the project.
- **G. Processing PUC Order/Secretarial Letter.** The PUC issues an Order/Secretarial Letter approving the project. This document outlines each party's responsibilities, costs, and future maintenance responsibilities. The PUC may include the following ordering paragraph in the Order/Secretarial Letter:

All costs, which are to be reimbursed by the Department of Transportation consistent with this letter, shall be reimbursed pursuant to the provisions of the 23 CFR Parts 140, 646. The aforesaid Federal reimbursement shall not supersede, delay or, in any manner, postpone the effect of any paragraph contained in this or any related Secretarial Letter or Order.

The PUC will not include any paragraph in the Orders/Secretarial Letters noting the need to include applicable state prevailing wages should they apply. For more information, see Appendix H.

Immediately upon receipt of the PUC Order/Secretarial Letter, the DGCE/A and the CO GCU must complete a thorough review of the issued Order/Secretarial Letter to ensure that what was agreed upon at the field conference has been correctly stated. If not, the OCC needs to be notified immediately so that a petition can be filed within 20 calendar days with the PUC requesting modification to the Order/Secretarial Letter.

- **H. Obtain Final Force Account Estimate from Railroad.** Obtain a Final Force Account Estimate from the Railroad in accordance with allocation of project costs as defined by the PUC Order/Secretarial Letter.
- I. Request Additional Funding through PMC Process (if necessary). The Railroad construction phase (01) funds will come from the highway/bridge project construction funds programmed on the 12-Year Program. If there are not sufficient funds available, a PMC request will need to be processed and approved adding appropriate funds to cover the railroad costs as outlined in the force account estimate.

4.04 RAILROAD PROPERTY ACQUISITION

Railroad property can be acquired either through an Amicable Settlement in accordance with procedures in the Publication 378, *Right-of-Way Manual* or by PUC Order appropriating the property. The Commonwealth does not have the right to possess railroad property until the Railroad is compensated for its property or until the Railroad executes a Right-of-Entry, RW-374 form, which grants the Commonwealth the right to access railroad property. See Chapter 2, Section 2.03 for the railroad acquisition process.

A. Amicable Settlement of Railroad Right-of-Way. If the project does not have PUC involvement, but requires acquisition of railroad right-of-way, then such right-of-way must be acquired through amicable settlement. If the project does have PUC involvement, then the railroad right-of-way can also be acquired by amicable settlement, but requires a letter to the PUC from the District ROW Administrator notifying them that an amicable settlement has been reached (see RW-348). Refer to Publication 378, *Right-of-Way Manual*, Chapter 3, Section 3.03R for further details. For additional information pertaining to the submission of right-of-way plans and property descriptions to the Railroad in order to obtain an amicable settlement, refer to Chapter 2, Section 2.03A Amicable Settlement.

- **B. PUC Appropriation of Railroad Right-of-Way.** If the project has PUC involvement, then the railroad right-of-way can be acquired either by amicable settlement (see Section 4.04A) or by PUC appropriation. For detailed information pertaining to the process of PUC appropriating railroad right-of-way, refer to Chapter 2, Section 2.03B.
 - 1. Before FHWA will authorize the advertisement for construction of the highway/bridge project involving railroad facilities the Department must ensure that adequate provisions have been made for a contractor or the Department to use railroad property. These provisions can be in the form of acquisition of railroad property via permanent right-of-way or temporary construction easements, an existing aerial easement, or in unusual circumstances through a right-of-entry permit as outlined in 23 CFR § 646.216(e)(3). If the final right-of-way plans are not available, a right-of-way plan limited to the sheets which only include the railroad property and a detailed metes and bounds description can be submitted to the PUC as long as the cover sheet is signed by the District Executive.
 - 2. PUC appropriation of railroad right-of-way can be used only if the project has PUC involvement and requires right-of-way takes (temporary or permanent) from the Railroad. Final signed right-of-way plans, color coded right-of-way plans, metes and bounds, and recitations for the railroad right-of-way acquisition must be submitted to the PUC and to all parties of record for review and approval and issuance of the PUC Order appropriating railroad right-of-way. A certified true and correct excerpt of the Order will be submitted to the District for recording in the County Courthouse. The recording and the payment of claims must be completed prior to right-of-way clearance being issued for the project.

4.05 RIGHT-OF-WAY PLAN SUBMISSION

- **A.** Railroad Concurrence of Right-of-Way Plans and Metes and Bounds Property Descriptions. The DGCE/A shall submit appropriate copies of the right-of-way plans with metes and bounds pertaining to the railroad property impacts to the Railroad for its concurrence prior to a formal submission to the PUC and all parties of record. If the Railroad and the Department agree on the required right-of-way, submission to the PUC will be made. The PM shall provide the DGCE/A with appropriate copies of such right-of-way plans and property descriptions.
- **B.** Submission of Signed Right-of-Way Plans and Metes and Bounds Property Descriptions to PUC. Once the Railroad's concurrence to the right-of-way plans and metes and bounds is received, the DGCE/A shall submit the appropriate copies of half size right-of-way plans (11" x 17"), color coded right-of-way plan sheets, metes and bounds descriptions, and recitations to the PUC and all parties of record. The PUC prefers to receive the metes and bounds description(s) via hard-copy and electronically in Word format. Refer to Chapter 2, Section 2.03D Preparation of Property Descriptions for PUC, pertaining to the preparation of metes and bounds property descriptions. In addition to the official hard-copy submission, an electronic version can be e-mailed directly to the PUC Rail Safety Engineering Section Supervisor. Refer to Chapter 2, Section 2.03B for specific details pertaining to the submission requirements of right-of-way plans and metes and bounds property descriptions to the PUC and parties of record. Also see Appendix A for an example of the final right-of-way plan submission letter to the PUC.

Upon formal submission of the plans to the PUC and all parties of record, the PUC will not take action until after a 20-day objection period. If there are no objections received from any party of record, the PUC will then process the request and ultimately schedule this matter to be heard at a PUC Public Meeting. Once approved at the Public Meeting an Order will be adopted and entered. The PUC will issue a certified true and correct excerpt of the Order appropriating the railroad right-of-way for recording in the County Courthouse. Right-of-Way clearance cannot be issued for the project until such Order is entered by the PUC and payment of claims is made. The following steps illustrate the recording process:

- **1.** Receive PUC Order Appropriating Right-of-Way. The PUC will issue a certified true and correct excerpt of the Order appropriating the railroad right-of-way.
- 2. Recording of PUC Order Appropriating Right-of-Way. The OCC provides original certified copy of the Order to the District ROW Unit for recording with the recorder of deeds office and provides proof of recording to the DGCE/A. Payment for the recording must be processed by the District in a timely manner. The excerpt of the order should not be recorded until the 30 day appeal period has past and the District is certain no appeals were filed.

3. Notification of Recording Sent to PUC. Proof of recording of the appropriation of the railroad right-of-way (Order) must be submitted by the DGCE/A to the PUC for their records. See example of a notification of recording letter to the PUC in Appendix A.

4.06 FINAL CONSTRUCTION PLAN SUBMISSION PROCESS

- **A. Final Highway/Bridge Construction Plans.** Before FHWA will authorize the advertisement for construction of the federally funded highway/bridge project involving railroad facilities, the final construction plans for the project must include in the general notes a statement to the effect that in accordance with 23 CFR § 646.216(e)(2)(iii), the Department has provided adequate provisions for a contractor/the Department to use railroad property. These provisions can be in the form of acquisition of railroad property via permanent right-of-way or temporary construction easements, an existing aerial easement, or in unusual circumstances through a right-of-entry permit as outlined in 23 CFR § 646.216(e)(3) to be signed by the Department's contractor.
- **B.** Railroad Certification. A Railroad Certification must be issued for all Department projects. The process to be followed in order to receive a Railroad Certification for Federal Oversight, State Oversight, and 100% State projects with or without railroad involvement is outlined below:
 - 1. Railroad Certification Process for all Projects with Railroad Involvement.
 - a. Federal Oversight Projects. Prior to FHWA giving the Department authorization to advertise for construction on all Federal Oversight projects involving railroad facilities, FHWA must receive from the Department a Railroad Certification Compliance letter signed by the Director of the Bureau of Project Delivery. This Railroad Certification Compliance letter assures FHWA that the Department is in compliance with the requirements in 23 CFR § 635.309(b). A sample of this Railroad Certification letter for projects that are Federal Oversight with Railroad involvement can be found in Appendix A. This letter must document the agreement number and estimated execution date of the State-Railroad construction agreement. The Department will not issue a Railroad Certification Compliance letter to FHWA until the District has completed the "Railroad Certification Compliance Check List" found in Appendix B. This check list addresses the twelve (12) points outlined in 23 CFR § 646.216(d). Therefore, for any project requiring the Department to issue a Railroad Certification Compliance letter, the District must address and document all twelve (12) points on the check list and forward a copy of the completed check list along with a copy of the non-executed State-Railroad construction agreement to the CO GCU prior to the PS&E package being submitted to the Department's Contract Management Section. The CO GCU will submit the original signed Railroad Certification letter to FHWA. A copy of the signed letter is to be posted in the Project Development Checklist (PDC) in ECMS by the District's PM and the DGCE/A maintains an electronic copy in GCEDMS for the project.
 - b. State Oversight and 100% State Projects. Prior to the Department advertising for construction on all State Oversight or 100% State funded projects involving railroad facilities, the DE must receive from the Bureau of Project Delivery a Railroad Certification Compliance memo signed by the Director. A sample of this Railroad Certification memo for projects that are either State Oversight or 100% State projects with Railroad involvement can be found in Appendix A. This memo must document the agreement number and estimated execution date of the State-Railroad construction agreement. The Bureau of Project Delivery will not issue a Railroad Certification Compliance memo to the DE until the District has completed the "Railroad Certification Compliance Check List" found in Appendix B. The District must address and document all twelve (12) points on the check list and forward a copy of the completed check list along with a copy of the non-executed State-Railroad construction agreement to the CO GCU prior to the PS&E package being submitted to the Department's Contract Management Section. The CO GCU will submit the original signed Railroad Certification memo to the DE. A copy of the signed memo is to be posted in the Project Development Checklist (PDC) in ECMS by the District's PM and the DGCE/A maintains an electronic copy in GCEDMS for the project.

In addition to the procedures noted above, Appendix D contains a process flowchart entitled "Railroad Certification Process for all Projects with Railroad Involvement".

2. Railroad Certification Process for all Projects without Railroad Involvement.

- a. Federal Oversight Projects. The District PM is to prepare and submit at the time of PS&E review a Railroad Certification letter addressed to FHWA indicating that the project has no Railroad involvement/coordination. A sample of this Railroad Certification letter for projects that are Federal Oversight without Railroad involvement can be found in Appendix A. A copy of the signed letter is to be posted in the PDC in ECMS by the District's PM and a copy is to be maintained in the project files by the PM.
- b. State Oversight and 100% State Projects. The District PM is to prepare and submit at the time of PS&E review a Railroad Certification memo addressed to the DE indicating that the project has no Railroad involvement/coordination. A sample of this Railroad Certification memo for projects that are State Oversight 100% State projects without Railroad involvement can be found in Appendix A. A copy of the signed memo is to be posted in the PDC in ECMS by the District's PM and a copy is to be maintained in the project files by the PM.

In addition to the procedures noted above, Appendix D contains a process flowchart entitled "Railroad Certification Process for all Projects without Railroad Involvement."

- **C. Obtain Form D-4279A from the Railroad.** In accordance with Section 4.03B.1, the DGCE/A should have already obtained a completed copy of Form D-4279A from the Railroad. This form contains necessary railroad information for the Department's contractor of the highway/bridge project. Conceivably, there could be a time lapse (1-2 years or more) from when the initial form was completed by the Railroad to completion of the highway/bridge final construction plans, so it may be necessary that the D-4279A form be updated. Therefore, the DGCE/A should have the Railroad review what was initially submitted, and if necessary, submit an updated copy.
- **D.** Submit Construction Plans to PUC for Approval. Completed and signed construction plans (signed by the DE) including appropriate "Also" plans such as signed Structure plans (S drawings), Maintenance and Protection of Traffic (MPT) plans, and Signing and Pavement Marking plans must be sent to the PUC for approval and all other parties of record for review if directed to do so in the PUC Order/Secretarial Letter issued for the project. Submit one half-size set (11" x 17") of the appropriate construction plan sheets (PUC jurisdictional area) to the PUC Secretary and one set to each of the parties of record for review and approval. All submissions to the PUC must include a cover letter addressed to the PUC Secretary with a courtesy copy of the same documents/plans and cover letter submitted to the Supervisor of the Rail Safety Engineering Section, Chief of RWUS, and OCC. An example of a final construction plan submission letter to the PUC can be found in Appendix A. Construction plans may also be e-filed, see Chapter 2, Section 2.06A.

For scanning purposes the documents/plans and cover letter to be filed with the PUC are to be in "loose leaf" form, without staples, permanent glued/taped bindings or spiral binders. If practical use only paper clips, binder clips and/or rubber bands to keep the original intact.

To minimize multiple paper plan submissions, the PUC will accept a hard-copy of the cover letter addressed to the PUC Secretary, along with one hard-copy of the signed title sheet and a CD containing a copy of the final construction plans. All parties of record, Supervisor of Rail Safety Engineering Section, Chief of RWUS, and OCC receive a hard-copy of the cover letter with a CD containing a copy of the final construction plans.

The final signed construction plans are to include appropriate references to the highway-railroad crossing number(s) (example DOT # 123 456 A) and PUC Docket Number assigned to the project (example A-00123456 and A-2009-1234567).

The Structure plans (S - drawings) shall include the PUC Docket Number and DOT Number on the first sheet above the title block. The District is to add the PUC Docket Number in BMS where PUC has jurisdiction over the structure involved.

The submission of the final signed construction plans including any "Also" plans to the PUC shall occur prior to the bid advertisement period. A copy of the Department's letter, which submits the final signed construction plan to the PUC, must be provided to the Contract Management Section of the Design Services Division of the Bureau of Project Delivery.

- 1. Approval of Construction Plans by PUC. The Department must receive a PUC Order/Secretarial Letter approving the plans for construction, alteration and/or abolition of any highway-railroad crossing before the project can be let (bids opened).
- **E. Documentation to District Project Manager for inclusion in ECMS contract.** The following items are required by the PM and District Contract Management Unit for inclusion in ECMS contract. Items contained in the PDC:
 - Copies of all PUC Orders/Secretarial Letters issued for project.
 - Copies of forms D-4279 (Railroad Crossing Data for Design) and D-4279A (Railroad Crossing Data for Contractor).
 - Copies of any draft or executed State-Railroad reimbursement agreements between the Railroad and the Department. If Federal funds are used in the construction phase of the project then the State-Railroad construction reimbursement agreement must be in accordance with 23 CFR § 646.216(d)(2).
 - Copy of the Department's letter transmitting the final construction plans for PUC approval. This is needed to advertise the project if the PUC approval is still outstanding.
 - Copy of the PUC Order/Secretarial Letter approving the construction plans.
 - Railroad contact information for flagging services and insurance.
 - Railroad insurance requirements document.
 - All appropriate railroad specifications as indicated and supplied by the Railroad.
 - In unusual circumstances a Right-of-Entry (ROE), Temporary Right-of-Entry Permit/Agreement, as outlined in 23 CFR § 646.216(e)(3) is required. If a ROE Permit/Agreement is required then an example of the permit/agreement that is to be signed by the Department's contractor shall be provided and included in the ECMS contract. ROE Permits/Agreements cannot be signed by the Department. Refer to Chapter 7, Section 7.03 for additional details.
 - If a temporary private contractor crossing is required for the construction of a project, then an example of the Railroad's Temporary Private Contractor Crossing Permit that is to be signed by the Department's contractor shall be included in the ECMS contract, along with any associated plans and specifications. These permits are not to be signed by the Department.
 - Railroad Certification Letter/Memorandum. A Railroad Certification must be issued for all Department projects, whether it has Railroad involvement or not, and a copy of the Railroad Certification Letter/Memorandum must be included in the ECMS contract.

Items contained in the Special Provisions (includes Standard Special Provisions and Project Special Provisions):

- If the Railroad requires that the contractor obtain a ROE Permit/Agreement, then a project specific special provision shall be developed and made part of the ECMS contract. This project specific special provision must clearly identify the process, requirements, time frames, and associated costs required for the contractor to obtain such entry permit with the Railroad. Contact the CO GCU for examples of a ROE project specific special provision.
- If the Railroad requires that the contractor obtain a Temporary Private Contractor Crossing Permit then a project specific special provision shall be developed and made part of the ECMS contract. This project specific special provision must clearly identify the process, requirements, time frames, and associated costs required for the contractor to obtain such temporary crossing permit with the Railroad.

- Applicable Railroad Insurance Standard Special Provision. Most railroads require that adequate insurance be in place before they will allow contractors and others to enter onto their property. The limits of Railroad Protective Liability Insurance in most cases are \$2 million (each occurrence)/\$6 million (aggregate) and in cases involving real and demonstrable danger by where trains are carrying hazardous materials or transporting passengers such insurance limits are \$5 million (each occurrence)/\$10 million (aggregate). Refer to Chapter 7, Section 7.03A for additional details. Below is a list of approved standard special provisions for both standard and higher limits of insurance coverage.
 - o a01901 Insurance General Application
 - o a01902 Insurance General Application Additional Coverage Limits
 - o a02001 Insurance Involving a Non-Operating Railroad
 - o a02101 Insurance Involving R of W of National Railroad
 - o a02102 Insurance Involving R of W of National Railroad Additional Coverage Limits
- a02201 Railroad Company Contact Person
- a02301 Maintenance and Protection of Railroad Traffic
- a02401 Railroad Protective Services Costs

Project Conditions (if required):

- The State-Railroad construction reimbursement agreement must be fully executed prior to issuance of Notice-to-Proceed (NTP) to the Department's contractor for the project.
- Issuance of the PUC Secretarial Letter/Order approving the final construction plans must be obtained prior to project letting (bid opening).

4.07 RAILROAD CONSTRUCTION FUNDING AND REIMBURSEMENT AGREEMENT PROCESS

In order for the Department to fully execute the appropriate construction reimbursement agreement between the Railroad and the Department as referenced above in Section 4.06D, the Railroad construction funds must previously have been authorized by the FHWA via the construction D-4232 for the highway/bridge project. The process and timing in executing the agreement is critical so as to not delay the issuance of the Notice to Proceed (NTP) given to the construction contractor for the highway/bridge project. There shall be a fully executed copy of the State-Railroad Construction reimbursement agreement before the NTP is issued. As a result, the proper timing to begin the reimbursement agreement signature process is crucial. In order to ensure that no delay in NTP occurs, it may require that the reimbursement agreement development and signature process with the Railroad begin prior to the submission of the PS&E to the District Contract Management Unit.

It is important to remember that FHWA will not authorize the Department to advertise the construction for bids or authorize the Department to proceed with force account construction for railroad work or for construction affected by railroad work until the conditions outlined in 23 CFR § 646.216(e)(2), found in Appendix H, are met.

Federal regulations also require that all construction work must comply with the Buy America provisions in 23 USC §313 and 23 CFR § 635.410 and the "Build America, Buy America" (BABA) provisions in Public Law 117-58 §§ 70901-52 if it meets certain criteria (see Chapter 7, Section 7.07D and 7.07E). This includes materials used by the Railroad in conjunction with a highway/bridge project as well as Section 130 Safety Program projects.

- **A.** Form D-4232 Processing and Approval (Construction). The Department and FHWA use this form (Request for Federal Authorization) to authorize the use of Federal funds for highway and bridge projects. Form D-4232 is only required for federally funded projects, not for 100% state projects.
 - 1. The D-4232s for the construction phase of a typical highway/bridge project are prepared by the DPE and submitted to the Program Center for review after the PS&E (plans, specifications, and estimate) for the highway/bridge project have been entered into ECMS by the District Contract Management Unit, but prior to

advertisement of the highway/bridge construction project. The DPE uses the project costs entered into ECMS to prepare the construction D-4232.

- **2.** When there are separate railroad construction costs as part of the highway/bridge project, there needs to be a separate WBS element created for the railroad phase with associated costs. The railroad construction costs are to be based on an updated railroad force account estimate prepared by the Railroad and received by the DGCE/A as described in Section 4.03H and all necessary railroad construction funds are to have been programmed on the TIP as outlined in Section 4.03I.
- 3. The railroad construction costs (force account estimate) must also agree with the proposed reimbursement amount noted in the construction reimbursement agreement between the Department and the Railroad.
- **4.** The railroad construction costs are to be included on the same construction D-4232 prepared and submitted for the construction phase of the highway/bridge project unless the railroad requires an executed agreement to move forward with the transfer of right-of-way, then do the following:

Prepare a D-4232 for the railroad construction costs only and include the following statement:

Railroad construction authorization necessary to permit execution of the railroad reimbursement agreement which is required by the railroad to release their ROW. This document will be amended to request FULL construction authorization once all clearances are received, and the construction phase is ready to proceed.

This will allow the project to progress when railroads require a fully executed agreement.

5. The DPE will prepare and submit the construction D-4232 to the Program Center for review and approval. Once approved, the Program Center will submit it to FHWA for authorization. It provides a concise summary of project characteristics, including a description of items such as planning, programming, funding, and environmental requirements. The highway-railroad DOT number(s) is (are) to be included in the "Remarks & General Information" section of the D-4232. Also, FHWA requires that a certification statement be included on the Form D-4232 indicating that the Department will comply with 23 CFR § 646.214.

Again, as noted in Section 4.02C.1, the PM and DPE complete the form and submit it to the Program Center for review. The approved Form D-4232 is then forwarded to the FHWA for authorization. The Program Center notifies the DPE of approved funding.

- **B.** Prepare and Execute State-Railroad Construction Reimbursement Agreements. This task involves the preparation and execution of the appropriate pre-approved State-Railroad Construction Reimbursement Agreement. The processing and timing in the preparation of the construction reimbursement agreement and the timing in obtaining appropriate railroad signatures is crucial. As per 23 CFR § 646.216(d)(2), where construction of a Federal-aid project requires use of railroad properties or adjustments to railroad facilities, there shall be an agreement in writing between the State highway agency and the Railroad. This agreement covers items such as flagging services, construction engineering, administrative costs, railroad construction, etc. necessary as a result of the proposed highway/bridge project. This section in 23 CFR outlines twelve (12) bullet points and must be adequately addressed in such State-Railroad Construction Reimbursement Agreements. CO GCU and OCC will assist in the drafting and review of the agreement. A copy of the proposed agreement must be in place prior to authorization to advertise the highway/bridge project as per 23 CFR § 646.216(e)(2)(ii), but shall be fully executed prior to issuance of NTP to the Department's contractor. At the time of initial preparation of the agreement an updated railroad force account estimate should have been prepared by the Railroad and received by the DGCE/A as outline in Section 4.03H and all necessary railroad construction funds have been programmed and approved on the 12-Year Program as outlined in Section 4.03I.
 - 1. Begin preparation of the State-Railroad Construction Reimbursement Agreement. Contact the CO GCU to obtain a copy of the most current pre-approved State-Railroad construction agreements. Make appropriate project specific changes to the "WHEREAS" paragraphs of the agreement, fill in the appropriate blank fields at the top of page 1 of the agreement (except the Effective Date), add the Railroad's name at the top of the signature page just above the Railroad's signature line/date, and attach the appropriate Exhibits including the Railroad's force account estimate and, if required, Railroad's insurance requirements document as Exhibit "A".

Exhibit "B" is the audit clause and at every location where it denotes [NAME OF SUBRECIPIENT] replace it with the Railroad's name (ex. Norfolk Southern Railway Company). All federally funded State-Railroad construction agreements require the inclusion of an Exhibit "C" Lobbying form, which will need to be signed by the Railroad. All agreements, except those with Norfolk Southern Railway Company and SEPTA, require the inclusion of an Exhibit entitled Contract Provisions – Right to Know Law. Do not make any changes to the "NOW, THEREFORE" paragraphs as changes would remove the agreement from pre-approved status, thus requiring review by the Offices of General Counsel and Attorney General which would add an additional 8-10 weeks to the agreement execution time. See Chapter 7, Section 7.04A and Chapter 3, Section 3.05K for detailed procedures for processing and executing State-Railroad Reimbursement Agreements. A copy of the draft agreement between the Railroad and the Department is to be provided to the District Contract Management Unit as noted in Section 4.06D.

2. Send Agreement to Railroad for Execution. Prior to the DGCE/A sending State-Railroad construction reimbursement agreements to the Railroads for execution, it is required that all draft agreements be reviewed by CO GCU and OCC. The prompt submission of this agreement to the Railroad for execution is crucial.

Funds for the construction phase will not be authorized via the construction D-4232 until after approval of the PS&E (plans, specifications, and estimate) for the highway/bridge project. The following steps should not take place until such authorization has been obtained:

- a) State-Railroad Construction Reimbursement Agreement signed by the DE. Once the DGCE/A receives an original signed agreement from the Railroad, enter the agreement into LATS, generate the appropriate signature routing sheet, and attach to the front of the agreement. Insert (if necessary) the appropriate railroad signature authorization sheet between the agreement signature page and Exhibit "A". Only one complete original agreement package should be forwarded to the DE for signature/dates on the agreement signature page and the routing sheet.
- b) Prepare SAP-7 or SAP-8. Have the District Fiscal Office prepare the appropriate SAP-7 or SAP-8 to accompany the agreement for submission to OCC. The SAP document cannot be entered into the SAP system until after the D-4232 has been authorized and the railroad WBS element has been placed in open status.
- c) Transmit Agreement and Encumbrance Document to Legal. Submit the agreement package with the SAP document attached to the OCC for final processing and execution.
- d) Receive fully Executed Agreement. Once the DGCE/A receives the fully executed agreement, distribute appropriate copies and retain the original for the project files. Some railroads require a signed certification statement with a copy of the executed agreement be sent to them. This certifies that this is a true and correct copy of the original agreement. Refer to Chapter 7, Section 7.04A5.d.2 and Section 7.04B.5.d.4 for additional details. The agreement shall be fully executed prior to issuance of NTP to the highway/bridge contractor.

4.08 CONSTRUCTION

- **A. Issue Construction Notice to Proceed to Railroad.** If the Railroad is to perform the work with its own forces as outlined in the agreement, the DGCE/A, if authorized, or CO GCU issues NTP to the Railroad (see Chapter 3, Section 3.07A). In most cases, the work may involve only flagging and inspection by the Railroad. If work is to be performed by outside forces, proper bidding procedures must be followed (see Chapter 3, Section 3.06B.2).
- **B.** Attend Pre-Bid meeting. There are occasions in which a pre-bid meeting is scheduled. The DGCE/A and the Railroad should be invited to attend. The PM and District Contract Management Unit need to inform the DGCE/A of the date, time and location of the pre-bid meeting. The DGCE/A will then coordinate with the Railroad.
- **C. Attend Pre-Construction Meeting.** Once the contract is awarded, a pre-construction meeting is scheduled. The DGCE/A and the Railroad are to be invited to attend the pre-construction meeting in order to coordinate highway work with the Railroad.

- **D. Monitor Project Construction.** This activity is ongoing throughout the duration of the project's construction. The DGCE/A shall inspect and monitor the project's progress in the field to verify completed work. DGCE/A ensures that the Railroad is in compliance with items such as the executed State-Railroad construction reimbursement agreements, approved construction plans, railroad standard and project specific special provisions, PUC Orders/Secretarial Letters, Buy America, and BABA requirements. If the construction project includes a grade crossing safety upgrade, the requirement to inspect 30% of the construction activities applies similar to a Safety Project (see Chapter 3, Section 3.07F).
- **E. Notify PUC that Construction is Complete.** It is the responsibility of the DGCE/A to notify the PUC of completion of construction activities so that they can schedule a final inspection. An example of a notification of project completion letter to the PUC can be found in Appendix A.
 - 1. Attend Final Inspection by PUC. The PUC will issue a letter notifying all parties of record when they will be conducting a final inspection. Typically, CO GCU will not attend the final inspection. DGCE/A must attend and verify that all work has been completed in accordance with approved plans. If there are any outstanding issues remaining that cannot be resolved, the PUC will set the proceeding for a hearing.
 - **2.** PUC Issues Project Closed Letter. If there are no outstanding issues remaining, the PUC will issue a letter closing the project.
- **F.** Railroad Submits Final Invoice to DGCE/A. The Railroad shall submit all progressive invoices and the final invoice for the project for processing and payment in accordance with the State-Railroad Construction Reimbursement Agreement and Chapter 6. The DGCE/A is required to review all railroad invoices for accuracy prior to it being approved for further processing and payment through SAP. The DGCE/A should also ensure the Railroad has submitted the appropriate Certificate(s) of Compliance for any steel and iron products in accordance with the Buy America and BABA requirements.
- **G.** Attend Post-Construction PUC Hearing. If a post construction hearing is held, guidelines outlined in this chapter and Chapter 2 will be followed.
- **H. Prepare Closeout Certification.** Upon project completion and payment of final invoice the project is to be closed out. The DGCE/A is to prepare a Certification of Railroad Agreement Completion form found in Appendix B and submit it to the CO GCU for final processing with the Comptroller's Office, Bureau of Commonwealth Accounting. Submission to the Comptroller's Office, Bureau of Commonwealth Accounting, no longer requires waiting until completion of an audit before closing out the project. See Chapter 6 for details.

If this highway/bridge project involved the upgrading/modification to an existing highway-railroad crossing, the DGCE/A is required upon completion of the project to update the crossing inventory data and add new photographs of the crossing showing the new facilities in GCEDMS. This ensures that the US DOT National Crossing Inventory File is updated. See Chapter 3, Section 3.07L for details. All projects are to be closed out within three months of the date of submission of the final invoice to the Comptroller's Office.

4.09 LOCAL HIGHWAY/BRIDGE PROJECT RAILROAD AGREEMENT AND INVOICE PROCESS

The Department not only programs, manages, designs, and constructs highway/bride projects on the state route system but also does the same for highway/bridge projects on locally-owned roadway systems. The project development process previously outlined in this chapter also applies to local projects; however the procedures, relating to agreements and invoices differ. For additional information, see Publication 740, *Local Project Delivery Manual*.

The following sections provide a guideline for the DGCE/A and the PM in the processing of reimbursement agreements between the Railroad and the municipality and between the municipality and the Department. This section also addresses the process and procedures for reimbursement of railroad invoices.

A. Railroad Agreement Process (Supplement to Section 4.02C)

1. Submit Force Account Estimate to Municipality and DGCE/A. The DGCE/A, PM, and the municipality

will need to obtain a force account estimate from the Railroad for the preliminary engineering phase. This estimate will be used in the development of the railroad preliminary engineering agreement for which this railroad force account estimate will become an exhibit to. This force account estimate will also be used in obtaining the appropriate railroad funds and its source.

- a. Identify Funding Source. Based on the Railroad's force account estimate and the agreement that will be executed between the municipality and the Railroad, the DGCE/A and PM will need to determine the amount to be reimbursed to the municipality by the Department. The DGCE/A and PM will need to prepare a PMC request adding the railroad preliminary engineering phase to the project. The request will also reflect the associated dollar amount and identify the source of the funds. This request is then to be submitted to the DPE. Typically, the funding source would be from the preliminary engineering costs programmed for the highway/bridge project improvement costs.
- b. PMC Request for Approval of Railroad Phase. The DPE reviews the request and forwards to PMC for approval. If the project is both state and locally funded, an approved Work Breakdown Structure (WBS) will need to be opened, but a Form D-4232, Federal Authorization Agreement, will not be required. If there are federal funds, then Form D-4232 will need to be completed and approved by FHWA before the WBS element can be opened.
- c. Form D-4232 Processing and Approval (Preliminary Engineering Local Project). As outlined in Section 4.02C.1, Form D-4232 Processing and Approval (Preliminary Engineering), the procedures and approval process for obtaining federal authorization is the same for local highway/bridge projects as it is for state highway/bridge projects. Once the D-4232 is approved and the WBS element for the railroad phase is placed in open status, the PM can proceed with the development of the reimbursement agreement between the Department and the municipality adding the railroad preliminary engineering phase. The DGCE/A and PM shall also notify the municipality to proceed with the execution of their railroad preliminary engineering agreement with the Railroad.
- 2. Railroad Preliminary Engineering Reimbursement Agreement. Similar to Section 4.02C.2, Prepare Pre-Approved Preliminary Engineering Reimbursement Agreements, the municipality will need to enter into a Preliminary Engineering Reimbursement Agreement with the Railroad. The process and form of agreement used between the municipality and the Railroad is at their discretion. The DGCE/A can, through the PM, provide the municipality with an example of the Department's Railroad Preliminary Engineering Reimbursement Agreements for their use.
- **3.** Execute Railroad Agreement. The Railroad and the municipality shall execute a preliminary engineering agreement in the appropriate manner as required by the signing parties. The municipality shall provide the DGCE/A and PM with a copy of the executed agreement for the Department's project files. The Railroad reimbursable amount as outlined in this agreement will be used in the development of the reimbursement agreement between the Department and the municipality.
- **4.** Municipality Preliminary Engineering Reimbursement Agreement. During or after the execution of the railroad preliminary engineering reimbursement agreement between the Railroad and the municipality, the PM, with assistance by the DGCE/A, will then need to either:
 - Supplement its current executed preliminary engineering project reimbursement agreement between the Department and the municipality to add the railroad preliminary engineering reimbursement costs, or
 - Incorporate the railroad preliminary engineering reimbursement costs as part of the original project reimbursement agreement to be executed between the Department and the municipality.

The following are guidelines in the development and execution of the reimbursement agreement between the Department and municipality containing the railroad preliminary engineering phase.

a. Prepare Reimbursement Agreement between the Department and Municipality. The proper reimbursement agreement (including Exhibits) needs to be prepared by the PM and forwarded to the municipality for signature(s) and resolution. Once an original signed copy of the agreement and resolution have been returned back to the PM by the municipality, the agreement will need to be

entered into the LATS system. The agreement, along with the routing sheet generated by LATS, is to be given to the DE for appropriate signatures and dates.

- b. Prepare Encumbrance Document (SAP-7 or SAP-8). While the agreement is being signed by the DE, have the District Fiscal Office or designated District personnel prepare the appropriate SAP-7 or SAP-8 to accompany the agreement for submission to OCC.
- c. Transmit Agreement and Encumbrance Document to Legal. Attach the routing sheet and SAP document to the reimbursement agreement and send to OCC for final processing and execution.
- d. Receive Executed Agreement. Once the reimbursement agreement has been fully executed, distribute appropriate copies and retain the original for the project files.

The steps outlined above will also apply when processing reimbursement agreements between the Railroad and municipality and between the Department and municipality when incorporating the railroad construction costs for local highway/bridge projects.

It is important to note that the construction agreement between the Railroad and the municipality on federally funded construction projects must be in compliance with 23 CFR § 646.216(d)(2), as well as the Buy America provisions in 23 USC 313 and 23 CFR § 635.410 and the BABA provisions in Public Law 117-58 §§ 70901-52. Refer to Section 4.07B, Prepare and Execute State-Railroad Construction Agreements. The construction agreement between the Railroad and municipality must also be executed prior to NTP being issued to the highway/bridge contractor.

In all other aspects of a local highway-bridge project, the standard procedures still apply.

B. Processing of Railroad Invoices

- 1. Railroad Submits Invoices to Municipality. Once the agreements discussed in Section 4.03A have been fully executed, the Railroad can incur preliminary engineering costs and submit appropriate invoices to the municipality for reimbursement of railroad related project costs.
 - a. Municipality Submits Railroad Invoice to the Department. Once the municipality reviews and concurs with the invoice submitted by the Railroad, the municipality shall forward the Railroad's invoice to the PM under the municipality's letterhead requesting payment of railroad invoice as outlined in the Department's agreement with the municipality. Depending on the funding setup for the highway/bridge project, the amount of reimbursement to the municipality may vary. Example 80% federal, 15% state, and 5% local; therefore, the reimbursable amount to the municipality would be 95% of the railroad invoice.
 - b. Review and Process Railroad Invoice for Reimbursement to Municipality as per Agreement. The PM shall forward the railroad invoice received from the municipality to the DGCE/A for review and approval. Upon approval by the DGCE/A, the invoice is to be forwarded to the District Invoice Clerk for processing of payment to the municipality (not railroad) through SAP.
 - c. Municipality Reimburses Railroad per their Agreement. Once the municipality is in receipt of payment from the Department, the municipality shall reimburse the Railroad for 100% of the invoiced amount unless otherwise outlined in the reimbursement agreement.

4.10 HIGHWAY AND/OR BRIDGE PROJECT PROCESS FLOW CHART See Appendix D.

CHAPTER 5

BRIDGE INSPECTIONS

5.01 BRIDGE SAFETY INSPECTIONS AT HIGHWAY-RAILROAD CROSSINGS

- **A. Purpose and Overview.** The bridges that carry railroads over highways and those that carry highways over railroads are vital components of Pennsylvania's transportation infrastructure. They make it possible for both systems to operate efficiently. The Department's bridge safety inspection program helps to maintain these bridges; its purpose is threefold:
 - 1. To ensure public safety by identifying and mitigating bridge deficiencies in a timely manner.
 - 2. To ensure the ability of the bridges to carry the goods and services needed for commerce through and within Pennsylvania.
 - 3. To comply with federal and state statutory requirements.

To accomplish these objectives, the DCGE/A and the District Bridge Unit must work as a team.

Publication 238, *Bridge Safety Inspection Manual*, provides a more detailed description of the policies and procedures related to the Department's bridge safety inspection program.

B. Statutory Requirements for Bridge Safety Inspection. Federal and state laws require safety inspection of certain bridges. The over-arching regulation is the National Bridge Inspection Specification (NBIS) that requires inspection of highway bridges longer than 20 feet. The NBIS designates the Department as the lead agency responsible for coordinating Pennsylvania's compliance. PA Act 44 of 1988 (71 P.S. § 512(a)(19)) further empowers the Department to inspect, or have inspected, all County and Municipality owned NBIS highway bridges in the Commonwealth at their expense. This means that the non-federal portion of the inspection costs will be deducted from their liquid fuels tax.

For highway bridges, including those over railroads, NBIS requires regular structural safety inspections to be performed every 24 months, or more frequently depending on the structure's condition. Publication 238, *Bridge Safety Inspection Manual*, Part IP, Chapters 1 and 2 outline those requirements. The Federal regulations concerning NBIS are contained in Code of Federal Regulations, Chapter 23, Part 650, Subpart C.

Inspection responsibilities for highway bridges over railroad facilities include coordinating and arranging for access to the railroad property by District or consultant personnel. Further, there are additional costs associated with inspection of highway bridges over railroad facilities.

For railroad bridges over highways, 49 CFR Parts 213 and 237 now require railroad track owners adopt and follow specific procedures to protect the safety of their bridges. The regulations require track owners to implement bridge management programs that include: at least annual inspections of railroad bridges; know the safe capacity load of bridges; and, conduct special inspections if the weather or other conditions warrant such inspections. In addition, it requires an inventory of all railroad bridges, the audit of the bridge management programs, and inspections by the FRA; it also requires Railroads to maintain the design documents of each bridge and to document all repairs, modifications, and inspections of each bridge subject to FRA review.

The District Office should request a copy of the annual bridge inspection report conducted by the Railroads.

Additionally, NBIS requires that the Department conduct an inventory of the railroad bridges and complete an inspection of only the highway environs of the crossing. Publication 238, *Bridge Safety Inspection Manual*, Part IP, Chapters 1 and 2 outline those requirements. While not strictly required by NBIS, the Department's policy is that all overhead bridges, including those carrying railroads, are to have a structural inspection, similar to NBIS, performed regularly because of the potential threat they pose to the safety of the motoring public.

- **C. Responsibilities for Bridge Safety Inspection.** The PUC is empowered to assign inspection responsibility to any concerned party in a case before it. It is incumbent on the Department to ensure that the PUC assign inspection responsibility in any proceeding that involves a bridge. The Department normally advocates that the party assigned maintenance responsibility for the bridge through the PUC process should be the logical party to conduct the safety inspection of the structure. In the absence of previous agreements or PUC Orders regarding maintenance and inspection responsibilities, the following parties are to assume inspection responsibilities:
 - 1. For bridges carrying highways over railroads the Highway owner.
 - 2. For railroad bridges over highways the Railroad.

D. Responsibilities for DGCE/A

- 1. Coordinate communication between District Bridge and Maintenance Units, PUC, Railroad and other interested parties.
- 2. Ensure that inspection responsibilities are assigned in the PUC Orders.
- 3. Coordinate technical responses produced by District with PUC.
- 4. Assist the OCC in PUC proceedings.

E. Responsibilities for District Bridge Unit

- Coordinate scheduling and completion of inspections with responsible parties to ensure compliance with NBIS.
- 2. If needed, prepare expert testimony by staff Professional Engineer, including Summary Letter reports, for PUC field conferences and hearings.
- 3. Review scope of work for inspection of overhead local bridges.
- 4. Review inspection reports by other parties for quality and completeness. Enter data into the Bridge Management System (BMS2).
- 5. Provide requested technical assistance for bridges involving local roads and railroads.
- **F.** Eligibility for Federal Reimbursement of Inspection Costs. The inspection of NBIS bridges (highway bridges longer than 20 feet carrying highways) is eligible for reimbursement of 80% of the inspection costs, including non-professional services such as Maintenance and Protection of Traffic (MPT), from federal Highway Bridge Program (HBP) funds. The inspection must meet NBIS requirements and Department standards. The District Bridge Engineer must approve the scope and cost of inspections for HBP funds. Refer to Publication 238, *Bridge Safety Inspection Manual*, Chapter 1.9 Eligibility of Bridge Inspection Activity Costs for FHWA Reimbursement.

Department inspections of bridges carrying railroads over highways are <u>not</u> eligible for federal HBP funding.

The non-federally funded portion of bridge inspection costs are to be paid by the bridge owner according to PA Act 44 of 1988 (71 P.S. § 512(a)(19)). For highway or railroad bridges on local roads, the Department may perform the inspection but shall not agree to pay the owner's share of the costs.

G. Confidentiality of Bridge Inspection Records. As outlined in Publication 238, *Bridge Safety Inspection Manual*, IP 1.8, bridge inspection records are considered to be public records subject to disclosure in accordance with Federal and Pennsylvania statutes. Bridge inspection records released to the general public may be redacted, in part, to protect confidential information (for RTKL requests see Chapter 1, Section 1.04Q). However, the Department needs to present compelling information about the condition of the bridge to support its recommendations to the PUC who has the ultimate responsibility at the crossing. To resolve this apparent conflict,

the following practice for Department bridges, further detailed in Publication 238, *Bridge Safety Inspection Manual*, IP 1.8.3, is to be used:

- 1. The Department can agree to requests from the PUC for additional inspections or bridge ratings (See Publication 238, *Bridge Safety Inspection Manual*, IP 1.7.2.3). However, requests from the PUC, or any party, for copies of inspection type reports or information are to be forwarded to the OCC.
- 2. In lieu of providing the inspection report, a Summary Letter for reporting structural conditions at the bridge may be prepared by the District Bridge Unit. The DGCE/A or CO GCU will forward the Summary Letter to the PUC who may include it in its public records.
- 3. The PUC staff may be invited by the District to view, but not copy, inspection documents. These inspection documents are not to become part of the PUC's public records. The PUC staff can also view inspection documents in Central Office provided the inspection report has been uploaded as a document link in the Department's BMS2.

For bridges on non-State Routes, Grade Crossing staff should recommend that the local road owner or other party perform the inspection and produce a Summary Report, similar to the above.

The District Bridge Engineer is responsible for the bridge safety inspection records for all bridges in the District and for ensuring their continued confidentiality in accordance with Publication 238, *Bridge Safety Inspection Manual*.

H. Posting or Closing Bridges Under PUC Jurisdiction. Perhaps the most critical finding from a bridge safety inspection is a determination that a weight restriction or bridge closure is needed for public safety. Prompt action is required by the party responsible for the bridge's maintenance and inspection to effect such restrictions. The Department has a duty (assigned by NBIS and Act 44 (71 P.S. § 512)) to ensure all highway bridges in the Commonwealth are posted at their safe load capacity, so it has fiduciary responsibilities even for bridges not on the State highway system. Finally, coordination and approval from the PUC is required for such restrictions for bridges at highway-railroad crossings.

For bridges on state routes, see the posting procedure in Publication 238, *Bridge Safety Inspection Manual*, IP 1.7.2.3. For bridges carrying local roads, the local municipality may need technical assistance from the District Bridge Unit to fully understand the safety issues involved and the help of the DGCE/A or CO GCU to gain necessary approvals from the PUC.

For bridge emergencies where immediate posting or closure is deemed necessary, the restriction should be placed without delay. The PUC should be immediately notified of the action taken for public safety and the formal approval process initiated. If it is not an emergency, posting of the structure should be done after permission from the PUC is received.

Contact with the PUC will be through the DGCE/A or CO GCU. DGCE/A will be informed of the need for the posting by District Bridge staff. A Summary Letter about the condition of the structure will be prepared as described in Publication 238, *Bridge Safety Inspection Manual*, IP 1.8.3.1. and copy supplied to the DGCE/A. Copy of the Safety Inspection Report will not be released to the PUC. Requests for the release of the Safety Inspection Report will be handled by the OCC. DGCE/A or CO GCU will contact the PUC for the posting of the structure.

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CHAPTER 6

BILLING PROCESS

6.01 INTRODUCTION

The Grade Crossing Billing Process discussed in this chapter identifies various steps involved in the process and the responsibilities of the parties involved.

6.02 RAILROAD

Invoices are to be submitted to the central mailing address in Harrisburg, NOT to the District Office or the District Grade Crossing Engineer/Administrator (DGCE/A). From there the invoices will be scanned and routed electronically to the appropriate Organization, which would be the District Offices for approval and processing.

All railroad invoices are categorized as an invoice <u>not related</u> to a utility or grant, and should be mailed to the following address by the Railroad.

Pennsylvania Department of Transportation, NAME of ORGANIZATION LOCATION CODE PO Box 69181
Harrisburg, PA 17106

The "NAME of ORGANIZATION" would be the District for which the project is located, and "LOCATION CODE" would then be the corresponding code, all of which is listed on the Matrix-Location Codes found in Appendix I.

The Railroad is also required to include the "Mandatory Elements" placed in the top third of the invoice document. The optional list of "Preferred Elements" can also be added to the invoice, which will assist in prompt processing of the Railroad's invoice. The Mandatory Elements and Preferred Elements are further defined in Appendix I.

After the Railroad mails the invoice to the address above, it will be scanned and routed electronically to the appropriate organizations and individuals that need to approve the invoice.

6.03 DISTRICT OFFICE

After the Railroad mails the invoice following the procedures outlined in Section 6.02, the DGCE/A will ultimately review all railroad invoices for approval, thus allowing it to be processed for payment.

For a complete process flow map see the "PO and Non-PO Based Invoices Process Map" in Appendix I. The processing on railroad invoices will follow the Non-PO Based Invoices process.

6.04 PAYMENT

The Commonwealth will make payments to the recipient of the funding (Railroad) through the Automated Clearing House ("ACH"). Within 10 days of the contract execution date, the recipient of the funding must submit or must have already submitted its ACH and electronic addenda information, if desired, to the Commonwealth's Payable Service Center, Vendor Data Management Unit at 717-214-0140 (FAX) or by mail to the Office of Comptroller Operations, Bureau of Payable Service Center, Payable Service Center, Vendor Data Management Unit, 555 Walnut Street – 9th Floor, Harrisburg, PA 17101. A copy of the ACH enrollment form can be obtained online at www.vendorregistration.state.pa.us/cvmu/paper/Forms/ACH-EFTenrollmentform.pdf

6.05 FINAL BILLING AND CERTIFICATION

In accordance with the Buy America provisions contained in 23 USC §313 and 23 CFR § 635.410 and the "Build America, Buy America" (BABA) provisions in Public Law 117-58 §§ 70901-52, the Railroads must provide a certificate of compliance for any steel and iron products and other construction materials incorporated into a project if that project is subject to Buy America and BABA (see Chapter 7, Section 7.07D and Section 7.07E). This certification is to be provided when the Railroads submit their final invoice for processing and payment. The standard certificate of compliance for the Railroads to use and include with their final invoice is provided in Appendix B.

Railroad bills should be processed for payment as quickly as possible. Every effort should be made to make payments to the Railroad within 60 calendar days. Disputes about the bills should be resolved in an expeditious manner. If portions of the bills are in dispute, undisputed portions of the bill should be processed for payment. The PUC can resolve billing disputes, by means of a hearing, if disputes cannot be resolved amicably.

The Railroad must submit the final bill within one year of the PUC final inspection to be eligible for reimbursement, as per 23 CFR § 140.922(b).

6.06 COMPTROLLER

The Comptroller is responsible for:

- Processing railroad bills.
- Performing audits of Railroads.
- Issuing audit reports.

6.07 AUDIT REQUESTS

If an audit of the Railroad is required, the District will request that the Comptroller's Bureau of Audits, in coordination with the Chief, Utilities and Right-of-Way Section conduct an audit of the Railroad. The audit must be project specific. Provide the name of the Railroad, agreement number, and the amount involved. Requests can be sent to:

(NAME), Director Bureau of Audits, Comptroller Operations 555 Walnut Street 9th Floor – Forum Place Harrisburg, PA 17101

6.08 RESOLVE ADVERSE FINDINGS

The Comptroller's Office will issue an audit report upon conclusion of the audit of the Railroad. If there are any adverse findings, they must be resolved. The Grade Crossing Unit (GCU) will take the lead in the resolution of the audit findings.

6.09 PROJECT CLOSEOUT

Upon project completion and payment of final bills, the project should be closed out. For only those projects where a WBS/SPN was established for the railroad phase (01) in which federal funds are being used, the DGCE/A must prepare a Certification of Railroad Agreement Completion (CAC) form (see Appendix B) and submit it to the Central Office Grade Crossing Unit (CO GCU) for final processing and submission to the Comptroller's office. It is no longer required that you wait until completion of an audit before closing out the project. It is also necessary for the District Fiscal Staff to process an SAP-8 concurrently.

The CO GCU will obtain the necessary signatures and forward the CAC to the Comptroller's Office, who then closes the project. All projects are to be closed out within three months of the date of submission of the final invoice to the Comptroller's Office.

If it becomes necessary to reopen a project because of adverse findings revealed subsequent to an audit of the Railroad, the Comptroller's Office will reopen the project.

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CHAPTER 7

RAILROADS

7.01 INTRODUCTION

There are numerous railroads operating in Pennsylvania. The Surface Transportation Board classifies railroads based upon revenue. In Pennsylvania, the Class I Railroads include Norfolk Southern (NS), CSX Transportation (CSXT), Canadian Pacific (CP), and Canadian National (CN). There are dozens of Short Line Railroads operating in Pennsylvania that feed traffic to the Class I mainlines. These operating railroads are generally privately owned, but some Short Line Railroads are owned and/or operated by public entities (i.e., counties).

The Department coordinates its Section 130 Safety Program, Highway and/or Bridge Program projects with the owner/operators of the Railroads. These projects can require right-of-way acquisitions, design and construction cost allocations, and flagging and inspection responsibilities during construction/maintenance activities. The Department enters into agreements with the Railroads for assignment of the above responsibilities, and the reimbursement of railroad costs associated with the Department project, pursuant to 23 CFR § 646.216. In certain limited cases where an agreement is not reached, the Department may rely upon a PUC Order/Secretarial Letter as the document governing design, construction and payment activities.

7.02 RIGHT-OF-WAY

Railroad property can be acquired either through an Amicable Settlement in accordance with procedures in the Publication 378, *Right-of-Way Manual* or by PUC Order appropriating the property. The Commonwealth does not have the right to possess railroad property until the Railroad is compensated for its property or until the Railroad executes a Right-of-Entry, RW-374 form, which grants the Commonwealth the right to access railroad property. See Chapter 2, Section 2.03 and Chapter 4, Section 4.04 for the railroad acquisition process.

7.03 ENTRY ONTO RAILROAD PROPERTY

Entry onto railroad property may be required for construction activities as well as for inspection, maintenance, survey, and soil borings. For construction activities ordered by the PUC, the PUC's Order or Secretarial Letter allows the Department and/or its contractors to enter onto railroad property for performance of work.

Temporary Right-of-Entry (ROE) Permits/agreements are <u>not</u> to be signed by the Department. When these permits/agreements are used they are to be signed by the Department's <u>contractor</u> who is performing the required work activities on the Railroad's property. Therefore, in accordance with 23 CFR § 646.216 (e)(3) the Railroads, in some cases, may require the Department's contractor to enter into a Temporary ROE permit/agreement with the Railroad before allowing the Department's contractor access onto railroad's property to perform the necessary physical construction activities for the project. If a railroad indicates that a ROE will be required by the Department's contractor, an example of that railroad's ROE permit/agreement must be included in the contractor bid documents for highway and/or bridge projects involving railroad facilities, along with any ROE applications and fees associated with obtaining a ROE.

Railroads may require a right-of-entry permit/agreement from a Department contractor for other activities such as inspection, soil borings, and surveys. Contact the CO GCU for copies of Temporary Entry Permit examples.

A. Insurance. Most Railroads require that adequate insurance be in place before they will allow contractors and others to enter onto their property. 23 CFR §§ 646.107, 646.109, and 646.111 govern Railroad protective insurance. The limits of insurance in most cases are:

\$2 Million Each occurrence

\$6 Million Total

In accordance with 23 CFR § 646.111, "Amount of Coverage," the maximum dollar amounts of coverage to be reimbursed from Federal funds with respect to bodily injury, death and property damage is limited to a combined amount of \$2 million per occurrence with an aggregate of \$6 million applying separately to each annual period except as follows:

In cases involving real and demonstrable danger of appreciably higher risks, higher dollar amounts of coverage for which premiums will be reimbursable from Federal funds shall be allowed. These larger amounts will depend on circumstances and shall be written for the individual project in accordance with standard underwriting practices.

There are cases where higher dollar amounts of \$5 million (each occurrence) /\$10 million (total) are required by the Railroads for higher risk cases where the trains are carrying hazardous materials or passengers.

The insurance policies also must comply with certain other requirements, i.e., no pollution exclusion or punitive damages exclusion. For examples of railroad insurance documentation contact the CO GCU.

The Department's special provisions make reference to the insurance limits requested by the Railroads. The contractor must have the appropriate insurance in place prior to starting work on railroad property. The DGCE/A shall ensure that the required insurance special provisions are in fact included in the contractor bid documents for highway and/or bridge projects involving railroad facilities, in order to avoid contractors refusing to obtain the necessary insurance after the bid award.

B. Availability of Insurance from Railroads. In some instances the Railroad will make insurance available to consultants and contractors entering onto their property. The work, in general, must be less than \$250,000, for tasks such as surveying, core boring, and inspecting. Contact the Railroad's Real Estate or Insurance departments for insurance availability and associated fees. In case of the Department personnel entering onto NS property, the fee is waived since the Department is self-insured and does not purchase insurance.

The consultants are not required to purchase insurance from the Railroads and can obtain insurance on their own if they so desire.

7.04 AGREEMENTS BETWEEN THE DEPARTMENT AND RAILROADS

- A. State-Railroad Agreements. The Department uses pre-approved State-Railroad Agreements with the Railroads.
 - 1. Pre-Approved State-Railroad Agreements. Pre-approved agreements are agreements that the Offices of General Counsel (OGC) and Attorney General (OAG) have reviewed and approved. So long as these agreements are not modified, OGC and OAG do not need to review and sign the agreement in order for it to be executed by the Commonwealth of Pennsylvania. Here, the agreement is between the Department and a railroad and defines the specific responsibilities of each party relative to a particular project. Pre-Approved Agreements typically cover railroad expenditures for preliminary engineering, construction engineering, construction activities (alterations to railroad's facilities), protective services, and other railroad costs based on a railroad force account estimate and outlines reimbursement costs to the Railroad.

There are five Pre-Approved State-Railroad Agreements (see Appendix E). They are:

- 18-FA-17.1 Preliminary Engineering Agreement (Federal Funds)
- 18-FA-18.1 Preliminary Engineering (State Funds)
- 18-FA-19.1 Supplemental Agreement used to supplement an executed Preliminary Engineering and Construction agreement (State and/or Federal Funds)
- 18-FA-20.1 Construction (Federal Funds)
- 18-FA-21.1 Construction (State Funds)

These Pre-Approved Agreements must be used in their standard format. Any non-standard modification made to the "WHEREAS" clauses needs to be reviewed by OCC to determine if the proposed modification strips the agreement of its pre-approved status. Any change made to the numbered sections after the "NOW,

THEREFORE" clause strips the agreement of its preapproved status. When supplementing non-pre-approved agreements, the OAG and OGC need to review and approve the agreement. This additional review adds considerable time to the execution process.

These agreements include the appropriate language under Management Directive 310.30 – PA Electronic Payment Program – Use of ACH (Automated Clearing House) Network and language pertaining to the Pennsylvania Right-to-Know Law, 65 P.S. §§ 67.101-3104.

An agreement, as a vehicle for payment, must be executed prior to the commencement of work.

- **2.** PUC Order/Secretarial Letter. The PUC Order/Secretarial Letter may no longer be used as a reimbursement agreement with the Railroad. All projects, including Section 130 Safety Projects and 100% State funded projects, must have a reimbursement agreement executed by the Railroad and the Department.
- **3.** Supplemental Agreements. If there is a need to increase the agreed-upon estimated project cost established in SAP, a supplement agreement may be needed. Sound engineering judgment should be used in evaluating the justification for cost increases. An increase to the programmed amount in excess of Program Management Committee (PMC) criteria must be approved by the PMC. When processing a supplemental agreement, a copy of the original agreement must be attached when it is submitted to the OCC for review.

The following information, at a minimum, is required in SAP in order for the Comptroller's Office to process the final payment invoice:

"The increase in the agreed estimated cost is due to
This (does, does not) constitute a change in the scope of work (and, but) a supplemental agreement
(is, is not) required. The requested encumbrance increase (is, is not), in itself, significant enough to
require a supplemental agreement. This adjustment is authorized by
District Grade Crossing Engineer/Administrator, and has the concurrence of
Central Office Grade Crossing Unit."

- **4.** Exhibits to Agreements. There are several Exhibits attached to State-Railroad agreements. The State-Railroad agreement will identify what Exhibits are required to be attached. The Exhibits currently used on State-Railroad agreements are:
 - **a.** Railroad Force Account Estimate (which may require the inclusion of the Railroad's insurance documentation).
 - **b.** Audit Clause. (Note: to be used in agreements with Subrecipients receiving Federal funds).

In all locations within the Audit Clause exhibit the [NAME OF SUBRECIPIENT] shall be replaced with the Railroad's name used within the Agreement.

On agreements with CSX Transportation, the Audit Clause exhibit and its referencing paragraph within the State-Railroad agreement is to be replaced with the following:

Commonwealth's reimbursement to railroad for services performed under this Agreement shall be in accordance with the provisions of the FHWA Federal-Aid Policy Guide (23 CFR) and any supplements and amendments thereto. Railroad agrees that Commonwealth and/or its designees shall have the right to access and inspect railroad's records relating to the design phase of the Project at any time during reasonable business hours during the design phase of the Project and for three (3) years after final billing.

- **c.** Lobbying Certification Form (Note: the Railroad must sign and date the Lobbying Certification Form.)
- **d.** Contract Provisions Right to Know Law (Note: that the Right to Know Law language within the agreements and its accompanying Exhibit are not required in agreements with NS and SEPTA.)

- **5.** Processing Agreements. These are guidelines for processing agreements through OCC and directions on securing approval to access the Legal Approval Tracking System (LATS) and how to use the system. See Appendix E, Legal Approval Tracking System (LATS).
 - **a.** The OAG requires that an Agreement be sent to them within a "reasonable" time after the date the document was signed by the parties involved. To avoid any delays in the approval process and to meet the OAG's requirements, OCC requires that all agreements be submitted to it within 60 calendar days from the first signature date.

This 60 calendar day cutoff allows sufficient time for review by the Comptroller's Office and, if necessary, OGC, before the agreements are forwarded to OAG. Absent any compelling reason for submissions with dates beyond the 60 calendar day cutoff, agreements with "stale" (61+ days or older) signatures will be returned to the originating office to be re-signed and re-dated. Therefore, it is imperative that each agreement meets the above time requirements.

b. It is required that the DGCE/A submit a draft copy of any State-Railroad reimbursement agreement for projects to the CO GCU and OCC for review and approval prior to the DGCE/A sending it to the Railroad for signature. It is also necessary for the DGCE/A initiating the agreement to review the document to ensure that it is in proper form for legal review and approval prior to sending it for execution. Only one copy of the agreement will be executed. Do not send multiple copies.

c. Execution of Agreements

1) INDIVIDUAL:

- The contracting entity is not a business entity.
- The Agreement must be signed by the individual.

2) SOLE PROPRIETORSHIP:

- An individual doing business under a fictitious name.
 - Ex.: Tom Doe d/b/a Doe's Tool and Die
- The Agreement must be signed by the owner (i.e., the sole proprietor). If signed by someone other than the owner, a power of attorney from the owner is necessary.

3) CORPORATIONS:

- The Agreement must be signed by a senior corporate officer, defined as one of the following:
 - Chairman, President, Vice-President, Senior Vice-President, Executive Vice-President, Assistant Vice-President, Chief Executive Officer or Chief Operating Officer.
- A corporate seal is not necessary.

4) GENERAL PARTNERSHIP:

- The Agreement must be signed by any general partner.
- If signed by someone other than a general partner, a power of attorney from one of the general partners is required.

5) LIMITED PARTNERSHIP:

- The Agreement must be signed by any general partner; a limited partner cannot sign.
- If signed by someone other than a general partner, a power of attorney from one of the general partners is required.

6) UNINCORPORATED ASSOCIATION:

 The Agreement must be signed by a person designated in the association's by-laws or by a resolution of the association's Board of Directors.

7) JOINT VENTURE:

- This involves two or more parties. The parties can all be the same type of business entity
 – for example, all partnerships or all corporations or a combination of different types of
 entities.
- The Agreement must be signed by all joint venturers. Signatures will be dictated by the types of legal entities involved.

8) MUNICIPALITIES/AUTHORITIES:

- A resolution is needed unless the signer is an Official authorized to sign by statute.
- The individual signing the agreement must be the same as the individual designated, by title and/or name, in the resolution, if one accompanies the agreement.

9) UNSTRUCTURED GROUPS:

- An authorization letter from the group leader is required.
- The Agreement must be signed by a group leader.

10) LIMITED LIABILITY COMPANY (LLC):

- This is an association organized under the Limited Liability Company Law of 1994.
- Under this law, documents may be executed by a duly authorized member or a manager of the LLC.
- The Agreement must be signed by a duly authorized member, or, if the LLC is managed by a manager, the manager may sign.
- **d.** Contracting Responsibilities. Before submitting an Agreement, make sure to comply with the following items:

1) AGREEMENT:

- 1. The Agreement Number must appear in the top right-hand corner of the first page of the Agreement.
- 2. The Federal Identification Number (FID No.), Social Security Number or Tax Identification Number must appear below the Agreement Number, which is a nine-digit field, and the SAP Vendor Number must appear below FID No., which is a six-digit field.
- 3. The full name of the Railroad must be consistent throughout the Agreement, including the routing slip, Agreement itself, signature page, Exhibits and Resolution. The Railroad's name on the Agreement must match the name that appears on the routing slip. Do not abbreviate unless railroad's name is abbreviated on Agreement.
- 4. Make sure the name of the Railroad is accurate. If the Railroad is a corporation, do not automatically assume that "Inc." is part of the name. If need be, ask for the full legal name of the Railroad. If the Railroad is a sole proprietorship trading or doing business under a fictitious name, make sure "d/b/a" or "t/a" and the name of the company follow the name of the Railroad.

For example: John Doe t/a Johns Maintenance Center

Or

John Doe d/b/a Johns Maintenance Center

5. If the Agreement is with more than one entity, provide the name and Federal Identification Number for each entity.

2) SIGNATURE PAGE:

- 1. All signatures must be original and not copies or facsimiles of the original.
- 2. All signatures must be dated and titles must be entered below signatures. If a signature is difficult to read, the signer should print or type his/her name below the signature. Instruct the Railroad not to insert an effective date at the top of the first page. The Department will insert this date after all necessary Commonwealth officials have signed; it will be the date when the last signatory has signed.
- 3. All agreements submitted to OCC for review must have signature dates within the last 60 calendar days. See Section 7.04A.5.a, above.
- 4. If a resolution is necessary, make sure the names and titles on the signature page match the names and titles on the resolution.
- 5. When a resolution is needed, encourage the Railroad to authorize only an individual to execute the Agreement. The resolution should not authorize a person to sign as the attestor. Attesting is not necessary in this instance. Providing only for execution authority cuts down on the possibility of the names and titles on the resolution not matching the names and titles on the signature page. Resolution can be by title alone. If necessary, insert the appropriate railroad signature authority document between the signature page of the agreement and Exhibit "A".
- 6. Unless provided for in a resolution, an Agreement does not need a corporate seal. Corporate seals are <u>not</u> recommended.
- 7. If the contractor is a government entity and a seal is used, make sure the name on the seal matches the party's name.
- 8. Make sure the person that will be signing the specific type of Agreement for the Department has been given delegation of signature authority and that person signs the Agreement before submitting it to OCC. District Executives, Assistant District Executives, Bureau Directors, and others were delegated the authority to sign specific types of Agreements for the Department.
- 9. Persons authorized to sign Agreements for the Department do <u>not</u> need to have their signatures attested.
- 10. Date must appear beside the Department official's signature and on the routing slip.

3) EXHIBITS:

- 1. When an Exhibit consists of two or more pages, label the bottom of every page of each Exhibit (e.g., Page 1 of 3).
- 2. When preparing a Supplemental Agreement and replacing an Exhibit with an updated version, it needs to be labeled in the following manner:

If the original executed agreement had the Railroad's force account estimate labeled as Exhibit "A", and a supplemental agreement is required due to an increase in the railroad force account estimate; therefore, a new railroad force account estimate would need to be attached to the supplemental agreement and labeled as Exhibit "AA". The applicable "WHEREAS" and "NOW, THEREFORE" paragraphs within the supplemental agreement would also reference Exhibit "AA".

- 3. Reference each Exhibit in the Agreement itself. Anything attached to the Agreement and not referenced in the Agreement itself is not considered part of the Agreement. The Railroad would not be bound to honor such provisions.
- 4. When preparing a Supplemental Agreement, make sure the current version of the Exhibits are attached. If not, you will have to attach a revised version of the Exhibit. The current versions of the Exhibits may be obtained from the CO GCU.

4) FINAL PROCESSING:

- 1. Once an Agreement is fully executed, distribute one copy to:
 - a. Railroad Some railroads require that when a copy of the executed agreement is sent to them that attached to the agreement be a signed certification statement found in Appendix E, Certification of Agreement. The original copy of the agreement is to be retained by the Department and kept in the project file. NS does require a signed "Certification of Agreement" be attached to the copy of the executed agreement sent to them
 - b. Comptroller Bureau of Payable Services, Contracts Division, Grants/Non-PO Section, 555 Walnut Street, 9th Floor Forum Place
 - c. Treasury Treasury Department, Treasury Audits, Room G-11 Finance Building. This applies to ITQs, RFPs and other agreements for which <u>monies are involved</u>. Self-insurance, Agility and Excess Maintenance Agreements, for example, are exempt from this requirement. Copies sent to the Treasury Department must be unstapled.
- 2. Please ensure that you perform an adjustment to the encumbrance in SAP to add the effective date.

5) MISCELLANEOUS:

- 1. When contracting with municipalities, use the following format: Monroe County, <u>not</u> County of Monroe, or Philadelphia City, <u>not</u> City of Philadelphia.
- 2. For administrative information about contracts, other than SAP-related matters, please contact the General Law Division support staff, who can be reached at (717) 787-5079 or 787-5299. They will be able to answer your questions about routing sheets, signature pages, the routing of contracts, and the status of contracts as shown in Legal Approval Tracking System (LATS). However, anyone with access to LATS can check contract status.
- 3. The OGC and OAG have requested that telephone calls inquiring about Agreement status come from OCC. **DO NOT CONTACT THESE OFFICES DIRECTLY.**

7.05 PROTECTIVE FENCING ON HIGHWAY BRIDGES OVER RAILROADS

In accordance with a memorandum issued on February 21, 2001 by the FHWA titled "ACTION: Railroad Guidelines for Design and Construction of Grade Separation Underpass and Overhead Structures", Federal Regulations 23 CFR §§ 646.212 and 646.214 as referenced below, and current Publication 15M, Design Manual Part 4, *Structures*; the following outlines when protective fencing shall be installed on highway bridges over non-electrified railroads.

A. FHWA Memorandum. The memorandum issued by the Director of Bridge Technology with FHWA on February 21, 2001 addresses "Railing parapet requirements and fencing (Highway over Railroad)", which specifically cites various sections of 23 CFR §§ 646.212 and 646.214, states the following:

For a highway bridge over a railroad, the governing regulation is §646.214(a)(2), The State transportation agency should follow its normal specifications, design standards, and guidelines for Federal-aid highway projects. For highways on the National Highway System (NHS), the States must comply with AASHTO standards, which explicitly incorporate railroad standards. Both AASHTO's Standard Specifications for Highway Bridges and LRFD Bridge Design Specifications contain the following provisions:

Structures designed to pass over a railroad shall be in accordance with standards established and used by the affected railroad in its normal practice. These overpass structures shall comply with applicable federal, state, county, and municipal laws.

Regulations, codes, and standards should, as a minimum, meet the specifications design standards of the American Railway Engineering Association, the Association of American Railroads, and AASHTO.

Thus, under AASHTO's standards for use on NHS highways over railroads, the railroad's standards would govern for railing parapets and fencing, regardless of whether the facility is owned by the railroad or the transportation agency (i.e., whether the project is covered by §646.214(a)(1) or (2)).

For all federally funded non-NHS highways including those over railroads, the States' design and construction standards are to be used. Therefore, the railing parapet and fencing requirements would be governed by the State's standards, even if they differ from the railroad standards.

Within these standards, we would determine the limits of eligibility for Federal-aid funding under \$646.212. For railing parapets and fencing, we can participate in all costs that are incurred in complying with the applicable design standards under \$646.214. On a project involving an NHS highway over a railroad, the AASHTO standards (i.e., the railroad standards) would be met and we would reimburse the State for the Federal share of costs. For a federal aid non-NHS highway over a railroad, the Federal share could be limited if the State goes beyond its own normal standards to meet higher railroad standards. This is because \$646.212(a)(1) prohibits the use of Federal funds for costs incurred on a Federal-aid project solely for the benefit of the railroad.

- **B.** Publication 15M, Design Manual Part 4, *Structures*. For highway structures with sidewalks, protective fencing shall be provided on all structures crossing over railroads. The protective fence shall extend at least 8 feet from top of sidewalk or driving surface adjacent to the barrier wall. The fence may be placed on top of the barrier wall. The protective fence is to be installed on the sidewalk side only. Refer to Publication 219M, *Standards for Bridge Construction*, BC-701M "Protective Fence" details, consisting of three sheets, for additional details.
- **C.** Highway bridges over Railroads on the National Highway System (NHS). The Department must comply with AASHTO standards, which explicitly incorporate railroad standards. Under AASHTO the Railroad's standard for railing parapets and fencing on overhead bridges controls. FHWA would reimburse the Department for the Federal share of the costs.
- **D.** Highway bridges over Railroads on Non-NHS. The Department applicable design and construction standards for railing parapets and fencing on overhead bridges would govern, even if they differ from the Railroad's standards. Should the Department go beyond its standards to meet higher railroad standards, the Federal share could be limited because 23 CFR § 646.212 (a)(1) prohibits the use of Federal funds for costs incurred on a Federal-aid project solely for the benefit of the Railroad.

7.06 DESIGN ACTIVITIES

Project development and processing must follow the appropriate Design Manuals and the Standard Operating Procedures (See Appendix D). In case of Highway and/or Bridge projects, type of structure, horizontal and vertical clearance, drainage, and property acquisition issues are of primary importance to the Railroad and should be properly addressed during design phase.

A. Notice to Proceed with Design. If the design is to be performed by railroad's own forces, the Railroad can proceed with the design immediately. If the Railroad elects to use a design consultant, the DGCE/A must verify that

the consultant has been approved by the Department in accordance with 23 CFR § 646.216(b)(1)(iii). Specifically, preliminary engineering on railroad-highway projects may be accomplished by an engineering consultant selected by the Railroad, with the approval of the state and with the Railroad administering the contract. The Railroads usually retain general engineer consultants (GECs) on an as-needed basis with multi-year contracts. The Railroads must submit copies of their contracts, along with overhead rate information, to the CO GCU for review. The CO GCU will review the contracts, and if acceptable, issue an approval letter to the Railroad to use the subject GECs. The CO GCU will maintain files of approved railroad consultants for reference. Districts should not pay invoices for railroad consultant work unless they are an approved GEC for that railroad.

- **B.** Types of Plans Required. Situation plans and detailed circuit plans (if needed) with detailed cost estimates are typically required from the Railroad for those projects that involve alterations to at-grade crossings. The following is a list of plans that may be required from the Department on highway and bridge projects involving railroad facilities:
 - 1. Type, Size & Location (TS&L)
 - 2. Design Field View (DFV)
 - 3. Traffic Signal
 - 4. Detour
 - 5. Final Right-of-Way
 - 6. Final Construction
- **C. Approval of Plans.** Railroad's plans must be approved by the PUC before construction can start. The Department will issue a Notice to Proceed with construction upon approval of plans by the PUC. DGCE/A must make sure that funding is in place before the Notice to Proceed with construction is issued to the Railroad.

7.07 CONSTRUCTION ACTIVITIES

- **A.** Notice to Proceed with Construction. If the Railroad is to perform the work with its own forces, it can proceed with the work upon Notice to Proceed with construction from the Department. However, if the work is to be performed by a contractor, proper bidding procedures must be followed. The Department's approval of the lowest bidder is required prior to start of actual work. See Chapter 3, Section 3.06B.2 for further details.
- **B.** Inspection and Protective Personnel. Railroad's inspection and protective personnel costs are reimbursable. On federally funded projects, these costs are billed directly to the Department instead of to the highway contractor. On state funded projects, these costs can be included in the construction project as a pay item for the contractor. DGCE/A is responsible for verification and payment of these bills.
- **C.** Scheduling Construction with the Railroad. It is important that the construction activities be coordinated with the Railroad. During the construction phase, the Railroad will be concerned with continuity of its operations. The Railroad should be invited to the pre-construction meeting so that all of the construction activities can be coordinated. Availability of flagging and inspection personnel will be of utmost importance to the contractor during construction. The Railroad's policies and procedures concerning those and other items of importance must be ascertained to avoid any surprises during construction.
- **D. Buy America.** The Buy America requirements outlined in 23 U.S.C. § 313 and 23 CFR § 635.410, as amended by MAP-21, require that "if steel or iron materials are to be used, all manufacturing processes, including application of a coating, for these materials must occur in the United States." Buy America applies to all work, eligible or ineligible for reimbursement by a Federal, State or Local government, that is performed under any contract (Federal, State or Local funded) that results from a National Environmental Policy Act (NEPA) project scope that includes Federal funds in any phase, contract or agreement. For example, if Federal funds are used for either environmental studies, preliminary engineering, Right-of-Way acquisition, or construction, then Buy America would apply to all other agreements or contracts regardless if they are Federally funded. Ineligible utility or railroad work must be performed separate from a NEPA project on Federal, State or Local funded contract(s) in order to not be subject to the Buy America requirements. Ineligible work may still be performed concurrently with a NEPA project contract(s) to take advantage of a project's traffic control or traffic diversion.

Steel and iron materials used by the Railroad in conjunction with a highway or bridge projects, or on a Section 130 funded safety project, must meet the Buy America requirements. In order for a manufactured product to be considered subject to Buy America, the product must be manufactured predominantly of steel or iron. A product is determined to be manufactured predominantly of steel or iron if the product consists of at least 90% steel or iron content by weight when it is delivered to the job site for installation. For purposes of applying Buy America and determining whether a product is a steel or iron manufactured product, the job site includes the sites where any precast concrete products are manufactured.

When steel and iron materials are used in a project, Buy America allows for a minimal use of foreign steel and iron materials, if the cost of such materials used does not exceed one-tenth of one percent (0.1 percent) of the total contract cost or \$2,500, whichever is greater. If taking advantage of this minimal use, the Railroad shall identify which products contain foreign steel or iron materials.

The miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct manufactured products that are not predominantly steel or iron are not subject to Buy America coverage. Examples include, but are not limited to, bolts (non-structural) cabinets, covers, shelves, clamps, fittings, sleeves, washers, nuts, screws, tie wire, spacers, chairs, lifting hooks, faucets, door hinges, etc. If there is a question as to whether a product is subject to the Buy America requirements, the Railroad shall contact the Department so they can make a determination (in consultation with the FHWA Division Office).

When the Buy America requirements apply, the Railroads will be required to certify that all work has been completed in accordance with the Buy America provisions. The Railroads must provide a Certificate of Compliance (see Appendix B) for any steel and iron products in accordance with the Buy America requirements when they submit their final invoice for processing and payment.

The Railroads shall maintain all records and documentation certifying compliance for each product subject to Buy America, for a period of three years from the date of project completion and acceptance. When required by periodic audits or other requests for proof of compliance (i.e. during construction inspection), the Railroad must provide copies of vendor documentation certifying compliance for each product subject to Buy America. As stated in Publication 408, Section 106.01, for unidentified steel products, the Railroad maintain documentation such as invoices, bills of lading, and mill reports that include certification statements that the steel and iron was melted and manufactured in the United States.

Situations of non-compliance will be handled on a case by case basis in coordination with the FHWA. Per 23 USC § 313 (e) if it has been determined by a court or Federal agency that the Railroad intentionally violated the Buy America requirements, that railroad shall be ineligible to receive any contract made with Federal funds pursuant to the debarment, suspension, and ineligibility procedures in Title 48 Federal Acquisition Regulations, Chapter 1 Subpart 9.4.

E. Build America, Buy America (BABA) Act. The Federal Bipartisan Infrastructure Law (Public Law 117-58 §§ 70901-52) includes the "Build America, Buy America" (BABA) Act that requires all iron, steel, manufactured products, and construction materials be produced in the United States.

The term produced in the United States defined as:

- **1. Iron or Steel Products**. All manufacturing processes from the initial melting stage through the application of coatings occurred in the United States per Publication 408, *Specifications*, Section 106.10(a)
- **2. Manufactured Product.** A nationwide Buy America waiver that supersedes BABA requirements is currently in effect for manufactured products. Manufactured products that are not predominantly steel or iron fall under this waiver and are allowable for use without regard to country of origin.
 - (a) Predominantly steel or iron is defined as greater than or equal to 50 percent of the total cost of the manufactured product.
 - (b) Manufactured products that are predominantly steel or iron must comply with Buy America provisions per Publication 408, *Specifications*, Section 106.10(a).

3. Construction Materials.

- (a) All manufacturing processes for construction materials occurred in the United States.
- (b) Construction materials includes an article, material, or supply that is or consists primarily of:
 - non-ferrous metals.
 - plastic and polymer-based products including polyvinylchloride, composite building materials, and polymers used in fiber optic cables,
 - glass including optic glass,
 - lumber, or
 - drywall

Items that consist of two or more of the listed materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.

- (c) Limitation with Respect to Aggregates. Shall not include cement and cementitious materials, aggregates such as stone, sand, or gravel, or aggregate binding agents or additives.
- (d) Construction materials where all manufacturing processes did not occur in the United States may be used, provided the cumulative cost of such construction materials as they are delivered to the project does not exceed 0.1% of the total contract amount, or \$2,500, whichever is greater.

7.08 AUDITS

Comptroller Operations performs audits of the Railroads on an on-going basis. Railroads will be selected for audit based on the Comptroller's workload and the amount of monies involved. See Chapter 6, Section 6.07 for more details regarding audit request procedures.

7.09 LUMP SUM CONTRACTS

Lump sum contracts with the Railroad are allowed. There is no dollar limit on the lump sum amounts for grade crossing warning devices and surfaces. For all other railroad work, the cost cannot exceed \$100,000. See 23 CFR § 646.216 (d) (3). When lump sum methods are used, a periodic review of railroad's methods and cost data used to develop lump sum estimates will be made. See 23 CFR § 646.216 (d) (4).

7.10 AMTRAK SAFETY TRAINING

The Federal Railroad Administration (FRA) requires Roadway Workers Protection (RWP) training for all AMTRAK employees, other railroad employees, and all contractors' employees working on AMTRAK property.

AMTRAK in turn requires all other personnel (i.e., Department employees) to take an AMTRAK Safety Training Course prior to allowing said employees on AMTRAK property. This AMTRAK training course is conducted by AMTRAK annually as a sole source provider and is arranged by the District and/or Central Office. The training is valid for one year.

7.11 BUREAU OF RAIL FREIGHT, PORTS AND WATERWAYS (BRFPW)

The primary purpose of the BRFPW is to preserve and improve rail freight transportation service and infrastructure, and to stimulate economic development through the generation of new or expanded rail freight service. BRFPW also acts as the Department's liaison agency in addressing ports and waterways policy and issues, and serves as the Department's lead agency for multi-modal/intermodal transportation planning and coordination.

Grade Crossing Manual

Act 119 of 1984, as amended by Act 188 of 1988 (Rail Freight Preservation & Improvement Act 55 P.S. § 696 et. seq.), authorizes the BRFPW's programs and assigns responsibilities. The BRFPW is responsible for providing technical and financial assistance regarding the railroad infrastructure of the Class I and Short Line Railroads, and businesses using rail freight service in the Commonwealth.

BRFPW is currently responsible for the administration of a multi-million dollar state funded grant program, which consists of the Rail Freight Assistance Program and the Capital Budget Program. The major goals of these grant programs are to:

- 1. Help maintain and rehabilitate the state's rail infrastructure.
- Create and retain jobs in the state.
- 3. Integrate rail freight into our transportation system.
- Relieve congestion on highways. 4.
- Lessen environmental impacts.

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CHAPTER 8

INVENTORY AND DOCUMENT MANAGEMENT

8.01 INTRODUCTION

As required under the Section 130 Railway-Highway Crossings Program of SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users), "each State is to conduct and systematically maintain a survey of all highways to identify those crossings that may require separation, relocation, or protective devices, and establish and implement a schedule of projects for this purpose."

The Rail Safety Improvement Act of 2008 (RSIA 2008) enacted on October 16, 2008 requires railroads and States to update the US DOT National Crossing Inventory File (National File) on a regular basis for all existing open crossings, including the inventory and numbering of existing or new crossings that are not in the National File, and the transfer of crossings to a new Operating Railroad when rail lines are sold. Railroads are responsible for public, private, and pedestrian crossings; and States are responsible for only public crossings.

Railroads and States must update their DOT Crossing Inventory Records for all existing open crossings (i.e., updating inventory records to reflect closure of closed crossings and update current records for crossings that are open) by October 16, 2010 and every year thereafter by September 30th.

Therefore, each DGCE/A is required to systematically update the US DOT Crossing Inventory information (State responsible data fields only) for all existing open public crossings within their respective District every year by September 30th within GCEDMS. In order to ensure compliance the Department tab in GCEDMS includes FRA Inspection Cycle data for all open public crossings to be completed by the DGCE/A every year. Additional details are outlined in this chapter under Section 8.03E.1.

RSIA 2008 defines a 'Crossing' as follows: A crossing means a location within a State where (1) a public highway, road, or street, or a private roadway, including associated sidewalks and pathways, intersects one or more railroad tracks either at-grade or grade-separated, or (2) a pathway explicitly authorized by a public authority or a railroad carrier that is dedicated for the use of non-vehicular traffic, including pedestrians, bicyclists, and others, that is not associated with a public highway, road, or street, or a private roadway, and intersects one or more railroad tracks either at-grade or grade-separated.

The DGCE/A is required to use the Grade Crossing Electronic Document Management System (GCEDMS) that was designed to allow for the collection, maintenance, and updating of all public crossing data. The Department's procedure is to update, store, and transfer all US DOT Crossing Inventory Form information to the Federal Railroad Administration (FRA) through GCEDMS for all public railroad crossings. The GCEDMS allows The Department to systematically update its state inventory and provide uploads to the National File maintained by the FRA, which is the basis for the FRA's Web Based Accident Prediction System (WBAPS). WBAPS provides a ranking of crossings by the highest risk of predicted accidents based on fixed inventory characteristics and five-year accident data. The FHWA requires that The Department use the FRA WBAPS in prioritizing grade crossing safety projects funded with Section 130 funds and Section 148 funds (previously 152) as outlined in Chapter 3, Section 3.02E. Each DGCE/A is required to maintain their respective public highway-rail crossing inventory information contained within GCEDMS with up-to-date and accurate information and photographs.

8.02 ACCESS TO GRADE CROSSING – ELECTRONIC DOCUMENT MANAGEMENT SYSTEM (GCEDMS)

A. Registering Users for the Grade Crossing Electronic Document Management System (GCEDMS). The GCEDMS is a state-of-the-art Internet system for maintaining grade crossing inventory information and grade crossing documentation for Department projects involving railroad facilities. GCEDMS will streamline the process for updating and maintaining the Pennsylvania-wide grade crossing inventory database and provide electronic updates to the FRA, while providing a simpler and more complete way of managing projects that involve grade crossing improvements, alterations, or abolishments through the PA Public Utility Commission (PUC) process. The

system enables faster, more efficient communication between The Department and railroad business partners, comprehensive tracking of project tasks and an easy method of submitting and receiving crossing inventory updates from the FRA. In order to participate in the use of this system, your organization must be a registered Business Partner with the Department. Basic instructions for registering as a Business Partner and maintaining your organization's GCEDMS user access are provided below.

1. Instructions for Existing Business Partners. If your organization is already registered as a business partner doing business as "Rail Freight, Ports, Waterways", you will automatically gain the authority to grant your users with access to this new system.

Registering as a business partner provides your organization with the ability to maintain the GCEDMS user access that meets your business needs. Your designated System Administrator has the authority and the responsibility to:

- Establish User IDs and passwords for users within your organization.
- Assign users in your organization to security groups, allowing these users to see information based on the level of security provided by the security group.
- Delete users for your organization and reset passwords for your users.

The following two user groups within GCEDMS are available to Rail Freight, Ports, Waterways Business Partners:

- a. External Business Partner (EXTBUSPART) Users that are assigned to this security group will have read-only access to the crossing inventory portion of the GCEDMS.
- External Railroad Business Partner (EXTRRUSER) Users that are assigned to this security group
 will have read-only access to both the crossing inventory and the project portions of the GCEDMS.
- 2. Instructions for New Business Partners. Registering as a business partner is a relatively simple three-step process. Once the registration process is complete, your designated system administrator will have the authority to administer users as described above. Instructions for registration are provided below:
 - a. Access the ECMS website, www.dot2.state.pa.us. Click on the Business Partner title in the navigation bar on the left, then click on Registration. Download the Business Partner Registration form, print it, complete it and send it to the address indicated on the website.
 - b. On that same web page, press the Register button (found at the bottom left hand corner of the screen), fill out the requested information contained in all 5 Tabs on the screen and electronically submit this form to The Department.
 - Suggestion: Complete the paper agreement and then do the electronic registration right away. Once you have verified that the information on the hard-copy and the electronic forms are the same, you can then submit the electronic registration to the Department and mail in the paper agreement.
 - c. Once your application has been approved, your designated System Administrator (Tab 4 of the registration information form) will receive an email notification assigning your organization a Business Partner ID number and a Systems Administrator User ID and password. This email should be received no more than 2 weeks after the Department has received both the paper and electronic registration forms.
- 3. The following is a listing various GCEDMS user groups with associated GCEDMS capabilities.
 - a. Central Office (INTCOUSER) Central Office users (COGCU) will have full access and edit capabilities for the whole system.

- b. District Users (DISTRICT_USER) Internal District users (DGCE/A) will have edit capabilities to the crossing inventory for their District and read only for the remaining crossing inventory and this applies to the crossing projects as well.
- c. Read Only Department (INTROPDUSER) Internal Department users (BRF, OCC, and Districts) having read only access to the system.
- d. External Business Partner (EXTBUSPART) External users (PUC, FHWA, Railroads, MPO's/RPO's) having read only access to the inventory portion of the system.
- e. External Railroad Business Partner (EXTRRUSER) External Railroad users (Railroads) having read only access to the inventory portion of the system and restricted read only access to the project portion of the system.

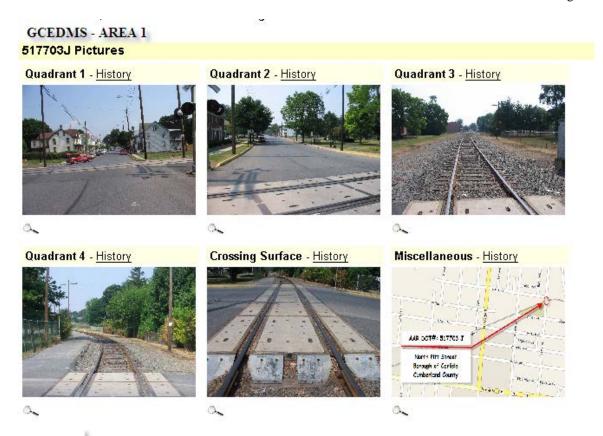
8.03 CROSSING INVENTORY

The crossing inventory in GCEDMS has been designed to allow for the display for all railroad crossings having a valid DOT#, the crossing photographs, location map, US DOT Crossing Inventory details, and PUC documentation. Each crossing is assigned a unique US DOT Crossing Inventory number. This crossing identification number, otherwise known as the DOT#, contains six digits followed by an alpha check character (example 123 456 A). Valid crossing numbers can be obtained from the Federal Railroad Administration (FRA). The responsibility for assigning the crossing number and for filing the initial inventory report (US DOT Crossing Inventory Form) is that of the "Operating Railroad". The actual assignment of a number to a crossing occurs when the number is placed on a completed crossing inventory form and returned to the FRA for processing into the National file. (See the "Assignment of Crossing Inventory Numbers", dated March 25, 2009, contained in Appendix H, for additional details and instructions. The GCEDMS inventory has on record approximately 15,390 crossings which are divided into either at-grade or RR under or RR over crossing. Each crossing is further defined as either being an open or closed public, private or pedestrian crossing.

The crossing inventory in GCEDMS is divided into 6 major areas (Refer to Figure 8.1 – GCEDMS Crossing Inventory):

- Area 1 Crossing Pictures (Quadrants 1 thru 4, Surface, and Misc.)
- Area 2 Crossing Details
- Area 3 FRA WBAPS Accident Prediction Rankings
- Area 4 US DOT Crossing Inventory data (Parts I through V)
 - o Part I Location and Classification Information
 - o Part II Railroad Information
 - o Part III Traffic Control Device Information
 - o Part IV Physical Information
 - o Part V Highway Information
- Area 5 Department Details
- Area 6 PUC Documents

The data in each area is used by The Department and its internal and external business partners in planning, project management, and reporting to FRA and FHWA. The following guidelines depict critical information required for each crossing.



Area 2

Crossing Details			
DOT#	517703J	Effective Date:	01/09/2009
County:	Cumberland	Municipality:	402 - CARLISLE
State Route:		Street or Road Name:	North Pitt Street
Crossing Status:	Open		

Area 3

FRA WBAPS Accident Prediction Rankings State Ranking: 1557 / 3785 MPO Ranking: 64 / 150 County Ranking: 32 / 90 Ranked as of: 11/12/2009 03:51:37 PM

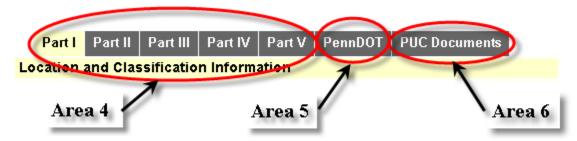


Figure 8.1 - GCEDMS Crossing Inventory

A. Crossing Pictures. The purpose of crossing pictures are to clearly show up-to-date photographs depicting the railroad crossing facilities (warning devices and surface), location map indicating crossing location, and any other pictures showing unique features found in the field. All new photographs are to be taken at the crossing every time there has been an alteration made to that crossing.

The Crossing Position in GCEDMS dictates the pictures needed. GCEDMS displays 6 pictures and are noted by Quadrant, Crossing Surface and Miscellaneous.

1. At-Grade Crossing

- Quadrant 1 and 2 photographs are to show the crossing from the highways perspective. There should be one picture in each direction that clearly shows the crossing protection. It is not critical to show the Advance Warning Signs or pavement markings in these pictures. (Refer to Figure 8.2 At-Grade Crossing Photographs Quadrant 1 and 2 Highway).
- Quadrant 3 and 4 photographs are to shows the crossing from the railroad perspective. There should be a picture in each direction that shows all the railroad warning devices and railroad facilities. (Refer to Figure 8.3 At-Grade Crossing Photographs Quadrant 3 and 4 Railroad).
- Crossing Surface photograph is to clearly show the surface type and condition. In cases where there is more that one set of railroad tracks, which cannot be clearly shown in one picture, multiple pictures of the individual crossing surfaces should be taken and stored in the Crossing Surface History. GCEDMS History allows user to store and view more pictures. (Refer to Figure 8.4 At-Grade Crossing Photographs Surface).
- Miscellaneous photograph is primarily used to display the crossing location map. Within the picture History, optional aerial views and picture of the DOT# identification tags can also be stored. The location map must note the DOT#, State or Local Route Number, Street name, City/Borough/Township and County. If the crossing is on a State Route provide SR and Segment number and omit street name in cases where none exists. In cases where the crossing type is private state "Private Crossing" and for pedestrian crossing state "Pedestrian Crossing". If the crossing status is closed state "Closed Crossing". (Refer to Figure 8.5 Crossing Photographs Miscellaneous)

2. Grade Separate Crossings

- Quadrant 1 and 2 photographs are to show the crossing from the bridge from a highway perspective. There should be one picture in each direction. If the railroad is above the highway show the vertical clearance.
- Quadrant 3 and 4 photographs are optional. Only take pictures in cases where access is safe and permissible. Ideally there should be one picture in each direction from the railroad perspective. Where the railroad is under the highway the picture should depict the vertical and horizontal clearance.
- Crossing Surface picture should be an aerial picture showing the bridge and any important features
 close to the crossing.
- Miscellaneous photograph is primarily used to display the crossing location map. The location map must note the DOT#, State or Local Route Number, Street name, City/Borough/Township and County. If the bridge is inventoried in The Department's Bridge Management System (BMS2) include BMSID for the State owned bridges and Bridge Key number for all bridges. If the crossing is on a State Route provide SR and Segment number and omit street name in cases where none exists. In cases where the crossing type is private state "Private Crossing" or Pedestrian state "Pedestrian Crossing".

- 3. Other. If pedestrian and private crossings are accessible it can be handled as either as a grade separate crossing or at-grade crossing depending on crossing position designation. In those cases where the crossing is not accessible an aerial photo and location map should be displayed.
- **B.** Crossing Details. The Crossing Details shown directly under the crossing photographs (see Area 2 in Figure 8.1) displays pre-populated crossing location information such as the DOT#, Effective Date, County, Municipality, State Route, Street or Road Name, and Crossing Status being either open or closed. Also provided is a function allowing the user to close or abandon a crossing or if a crossing is already closed the user can reopen the crossing. Note that when a crossing is in closed status the edit capabilities of the crossing inventory data is not available.
- **C. FRA WBAPS Accident Prediction Rankings.** FRA WBAPS Accident Prediction Rankings are displayed below the Crossing Details. WBAPS provides a ranking of crossings by the highest risk of predicted accidents based on fixed inventory characteristics and 5 year accident data. The values displayed reflect that crossings ranking based on the number of open public at-grade crossings by State, County and MPO as of the date indicated. The lower the ranking the higher the risk of predicted accidents. For example as shown in Area 3 in Figure 8.1 this crossing is ranked number 32 out of a total of 90 crossings for that County as of 11/12/2009.
- **D. US DOT Crossing Inventory Form.** The US DOT Crossing Inventory Form is a two page, five-part form. The five parts of the form, containing a total of 152 data fields of information, include the following categories:

Part I – Location and classification Information

Part II – Railroad Information

Part III - Traffic Control Device Information

Part IV – Physical Characteristics

Part V – Highway Information

US DOT Crossing Inventory data fields are displayed in GCEDMS under the tabs labeled Parts I through V matching those of the US DOT Crossing Inventory Form. This information is used by The Department to update FRA inventory database on a semi-annually basis. The information contained within the inventory data is either updated by The Department or the Railroad. The data fields editable by The Department can be done through GCEDMS, while at this time the Railroads are required to submit their updated information directly to the FRA and not through GCEDMS. External users who have access to GCEDMS can only view the information contained in tabs labeled Part I through Part V.

Detailed policies, procedures, and instructions for States and railroads pertaining to completing the crossing data fields on the US DOT Crossing Inventory form, updating responsibility table, and policies and procedures for submitting updates can be found in Appendix H, U.S DOT National Highway-Rail Crossing Inventory Policy, Procedures and Instructions For States and Railroads.

Within Part I - Location and Classification Information the latitude and longitude fields are the most critical fields in GCEDMS as they locate the crossing in the GIS system and place the crossing in appropriate county. Without accurate latitude and longitude coordinates entered into GCEDMS, the fields populated in GCEDMS by the Bridge Management System (BMS2) and Roadway Management (RMS) cannot occur. For at-grade crossings the latitude and longitude is to be measured at the center of the crossing and for grade separated crossings the latitude and longitude is to be measured as near as possible to where the railroad tracks intersect the bridge. Latitude and longitude coordinates can either be obtained in the field with the use of a GPS or while in the office using the Department's GIS system on line. All latitude and longitude coordinates obtained in the field are to be verified using GCEDMS's GIS mapping feature. The Latitude and Longitude coordinates are to be entered into GCEDMS in a decimal format only (nnn.nnnnnn).

In the City field select the city, town, or village where the crossing is located in or near from the list of names in County the crossing is located.

In the Street or Road Name field enter the name of the highway or street, if the highway or street has a name. If it is a private roadway and it has a name, enter the name of the road or the owner's name; otherwise just enter "private."

Within Part III – Traffic Control Device Information, the following are specific data fields in which The Department will be following procedures that may differ from the instructions provided in the U.S DOT National Highway-Rail Crossing Inventory Policy, Procedures and Instructions For States and Railroads.

For Passive Crossings, Item 2.A. Crossbucks – The FRA instructions indicate to count the number of masts or posts in which crossbuck signs are attached and enter that value in 2.A, and not count the individual crossbuck signs. The DGCE/A is to count the individual crossbuck signs at a crossing and enter that value in 2.A. A crossbuck sign that is printed on the front and back is to be considered as one sign.

For Active Crossings, Item 2.A. Crossbucks – The FRA instructions indicate that if a crossing is equipped with active warning devices, a value does not need to be entered for Item 2.A. The DGCE/A is to count the individual crossbuck signs at a crossing and enter that value in 2.A. A crossbuck sign that is printed on the front and back is to be considered as one sign.

Item 2.C. RR Advance Warning Signs (W10-1) – Only enter the value for W10-1 signs, all other advance warning signs (W10-2, 3, and 4) should be reflected in item 2.F.

Item 2.F. Other Signs – This would also include for example the number of tracks sign (R15-2), the Do Not Stop On Tracks sign (R8-8), the Exempt signs (R15-3), etc. Note when specifying the type, use the MUTCD reference number (example R15-2).

Item 3.A. Gates - Enter the number of gates. Include in the count all gates without making a distinction as to the color or reflectivity of the gate arms. Do not include Pedestrian Gates.

Item 3.C. Cantilevered (or Bridged) Flashing Lights – If the flashing light system consists of a <u>vertical structure</u> that has a cantilevered beam over the roadway (may be bridged construction), then count the number of such structures. Enter the number of cantilevered (or bridged) flashing light structures in the appropriate block. Separate cantilevered structures into those over traffic lanes and those not reaching the roadway (over only parking lanes, turnout lanes, or shoulders). Cantilevered structures are not to be counted as mast mounted flashing light systems.

Item 3.D. Mast Mounted Flashing Lights (number of masts) - Count only the number of standard masts with flashing light units, not the number of lights.

Example Crossing:

Double track crossing having a cantilever unit in one quadrant (including 2 crossbucks, a 2 – track sign, 4 pairs of lights, over traffic lane, with a gate) and a standard mast in another quadrant (including 1 crossbuck, a 2- track sign, 2 pairs of lights, with a gate), and one W10-1 and one W10-2 advance warning signs; then the following values would be entered:

```
Item 2.A (Crossbucks) – "3"
Item 2.C (RR Advance Warning Signs W10-1) – "Yes"
Item 2.F (Other Signs) – number: 2, specify type: R15-2
number: 1, specify type: W10-2
Item 3.A (gates) – "2"
Item 3.C (cantilevered flashing lights) – "1" over traffic lane
Item 3.D (mast mounted flashing lights) – "1"
Item 3.E (number of flashing light pairs) – "6"
```

E. PennDOT Details Tab. The PennDOT Details tab displays both confidential information and general information regarding public at-grade and grade separated crossings. External users of GCEDMS do not have access to view this information; therefore, when external users log into the system this tab does not show up.

Within the PennDOT Details tab the most critical field for both at-grade and grade separated crossings is the State Route field. If the crossing is on a State Route, this field must contain a valid SR number. If the State Route field is left blank or an incorrect SR number is entered into the system the highway information in Part 5 will not be properly updated.

The Existing Crossing Protection field must be updated for all at-grade crossing. This field value is used and displayed in the Search Crossing screen.

As previously stated, in order to ensure compliance with RSIA 2008 that updates to the US DOT Crossing Inventory records are completed by September 30th of every year for all existing open public crossings, GCEDMS contains "Inspection Cycle" data fields in the PennDOT Details tab. These data fields are to be completed by the DGCE/A for every open public crossing within their respective District every year within the current FRA Inspection Cycle dates. The "Inspection Cycle" data fields are as follows:

- 1. FRA Inspection Cycle Dates: The FRA inspection cycles run from October 1^{st} to September 30^{th} (example; 10/1/2010-09/30/2011). This field is system pre-populated based on the current FRA inspection cycle.
- 2. Actual FRA Inspection Done Date: The DGCE/A is required to enter in an inspection date within the current FRA inspection cycle.
- 3. Inspected By: Individuals name that performed the inspection is entered here by the DGCE/A.
- 4. Crossing Changes: The DGCE/A is to indicate "Yes" or "No" if there were crossing inventory data field changes.
- 5. Next FRA Inspection Cycle Dates: This field is system pre-populated with the next FRA inspection cycle dates (example: 10/01/2011 09/30/2012).
- **F. Documents Tab.** The Documents tab provides a location to store and view PUC Secretarial letters/Orders issued for the subject crossing as well as other project related documentation. This tab does not contain a comprehensive listing of all project documentation for the crossing. External users who have access to GCEDMS can view the documentation contained in this tab. The Documents tab also contains sections for PUC Details and Historical PUC Details. For more information, see Sections 8.04B.7 and 8.04C.9.
 - 1. PUC Details. This section shows documents linked through the PUC web service.
 - 2. PUC Historical Details. This section contains information previously provided by the legacy mainframe Grade Crossing System. This information provides reference to historical PUC Dockets, as well as Grade Crossing file numbers kept in CO GCU.

To assist the GCEDMS user, further information and details pertaining to data contained and entered into the Crossing Inventory has been provided in the GCEDMS Online Help. In the GCEDMS Help you will find information in the following areas:

- How Do I...? Step-by-Step procedures for tasks
- Show Me... Descriptions of each screen and what the fields and controls do.
- Tell Me About... Explanations of concepts that might be new to you.
- Using GCEDMS Help More information about the features in the help system and how to use them.

Additional guidance is also available though the GCEDMS Training Manual Version 1.0, last updated in August 2007.



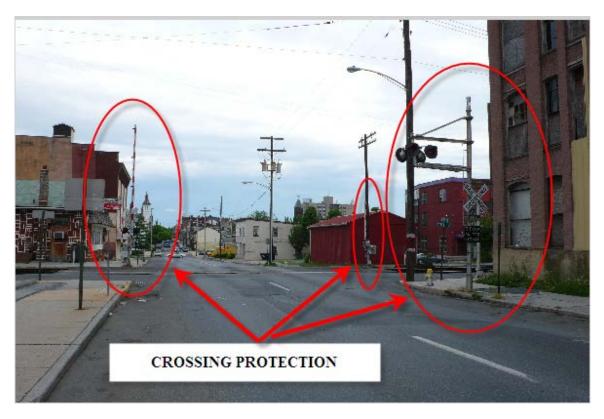


Figure 8.2 – At-Grade Crossing Photographs Quadrant 1 and 2 – Highway

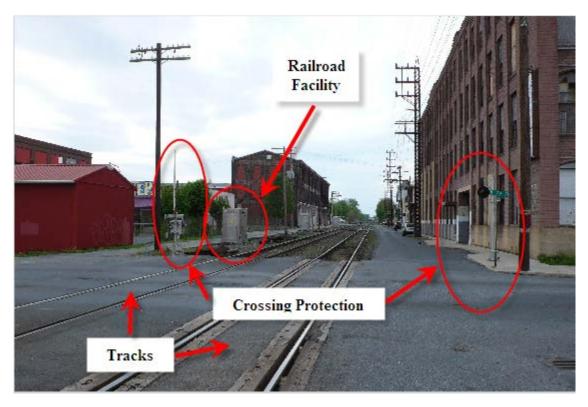




Figure 8.3 – At-Grade Crossing Photographs Quadrant 3 and 4 - Railroad

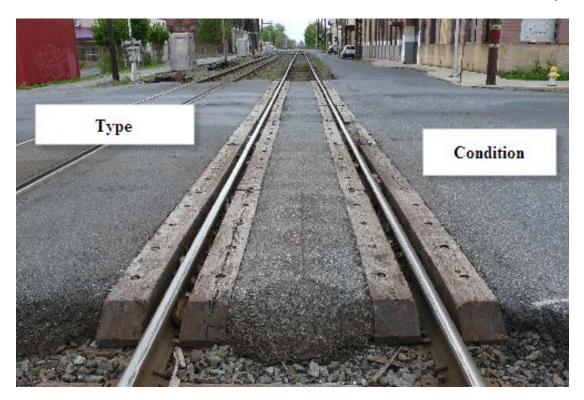


Figure 8.4 – At-Grade Crossing Photographs Surface

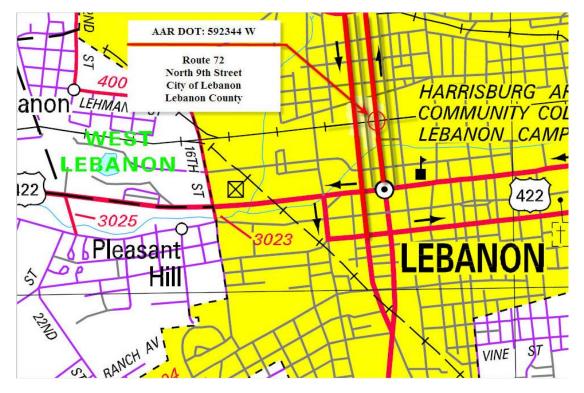


Figure 8.5 – Crossing Photographs Miscellaneous

8.04 CROSSING PROJECTS

The DGCE/A is required to use GCEDMS as part of The Department's daily operations, management, data entry, and document storage for all active and future Department projects involving railroad facilities. This includes safety projects, and highway and/or bridge projects involving railroad facilities.

The Crossing Projects in GCEDMS has been designed to allow the DGCE/A and GCU to create and maintain various types of highway-rail projects according to The Department's existing business practices and processes as outlined in this Manual. Each DGCE/A is required to create and maintain their District's respective projects involving railroad facilities in GCEDMS with up-to-date and accurate information and documentation. Types of projects that can be created and maintained within GCEDMS include the following:

- Safety Projects (Section 130)
- Highway projects involving railroad facilities (State or Local roads)
- Bridge projects involving railroad facilities (State or Local bridges)
- Hearing
- Other

As GCEDMS external business partners can view all of the crossing inventory information, with the exception of the PennDOT tab, this is not the case with the Crossing Projects. The only external business partners that can view crossing projects are the Railroads and the Railroad's access to view projects is restricted by the Railroad's FID number. Meaning that a railroad can only view projects for which their crossings are impacted by the project, as identified on the crossing inventory form, and the crossing has been added to the project in GCEDMS.

The GCEDMS allows the user to search for highway-rail projects by either providing the MPMS#, DOT#, or PUC Docket# or by providing the District, County, Project Type, and Project Status. When searching by District, County, Project Type, and Project Status the search results will return a listing of projects sorted by MPMS#, DOT#, District, County, State Route/Section, Project Type, PUC Docket #, and Railroad Operator.

As the DOT# is the unique identifier in the Crossing Inventory portion of the system, the MPMS# is the unique identifier in the Crossing Project portion. Each project stored and created in GCEDMS will have either a valid MPMS# which will be used upload into GCEDMS draw information from MPMS or a non traditional number that is automatically generated by GCEDMS for projects not in MPMS (ex. 99800002). Once a project is created in the system by the DGCE/A only the GCU can delete that project if necessary. An example of this would be if a project was created under the wrong project type. It is important to note that when a project is deleted, all links and task information for the deleted project will be are lost. Although the links are removed, the documents themselves are *not* deleted from EDMS.

Every project created in GCEDMS will have project details and PUC details information displayed. There are fields within these two sections that will require DGCE/A inputting and updating as needed. It will also list all crossings by DOT# that are associated with that project. More than one crossing can be added to a crossing project, but they must be of the same Railroad Operator. The DOT# is a hyperlink, thus allowing you to view the crossing pictures and inventory data contained within the Crossing Inventory portion of the system, plus there is a link directly to the GIS mapping. In order to establish the link with the PUC web service, the DGCE/A or CO GCU must enter the PUC Docket Number associated with the highway/bridge or safety project. This link allows GCEDMS to display project-related documents already scanned by the PUC. The DGCE/A and CO GCU can add or remove crossings from the Crossing Project.

The Crossing Project Page contains tabs that correspond to subtasks for the particular project type. Each tab lists the appropriate subtask items that apply to the subtask. The Online Help in GCEDMS contains a list of all subtasks on a tab and it will provide the user with information as to what is needed and documentation is to be linked. Safety projects and Highway and/or Bridge projects have different tasks and subtasks based on Chapters 3 and 4 respectively in this Manual. Documents can be linked to subtasks and their status updated as they are completed.

A. Safety & Highway and/or Bridge Projects. All projects, with the exception of Hearing or Other, will display Crossing, Invoicing, Documents, and Parties tabs, but in addition to those tabs the Safety Projects will also display Programming, Design, Bidding, and Constructions tabs and the Highway and/or Bridge Projects will also display Programming, Design, ROW Plan, Construction Plan, Funding-Agreement and Construction task tabs. Some

highway and/or bridge subtasks may have different items depending on whether the project is State Highway/Bridge or Local Highway/Bridge. The projects created as either a Hearing or Other will display only the Crossing and Documents tabs.

All of the subtasks listed under each task allows the user to indicate whether or not the subtask is applicable to the project, it identifies the specific subtask, it allows the user to input the completed date of the subtask, who it was completed by, and it provides the user with the ability to link specific documents pertaining to that subtask. The DGCE/A is required to indicate for each subtask whether or not it is applicable. If applicable, the DGCE/A is required to insert the completion date and link any appropriate documents.

To assist the GCEDMS user, further information and details pertaining to data and document entry for project involving railroad facilities stored and maintained in GCEDMS has been provided in the GCEDMS Online Help. Some of these areas include:

- Searching, adding, and deleting projects
- Viewing and updating fields in the Project and PUC Details
- Adding and deleting crossings from a project
- Viewing GIS information
- Data entry and document linking for all subtasks listed under each Project Tab. (The Project Tabs are further defined in Sections 8.04B and 8.04C below.)
- Adding railroad agreements and monitoring railroad invoicing
- Generating and downloading the D-4279/D-4279A forms, Diagnostic Analysis Form, and PUC Applications.
- Generate and maintain Parties of Record
- Document importing through EDMS

In the GCEDMS Help you will also find information in the following areas:

- How Do I...? Step-by-Step procedures for tasks
- Show Me... Descriptions of each screen and what the fields and controls do.
- Tell Me About... Explanations of concepts that might be new to you.
- Using GCEDMS Help More information about the features in the help system and how to use them.

Additional guidance is also available though the GCEDMS Training Manual Version 1.0, last updated in August 2007.

B. Safety Project Tabs.

- 1. Crossing Tab. Provides a listing of crossings linked to this project. Crossings can be added or deleted for a project and a link to the GIS Location Map is provided.
- 2. Programming Tab. The Programming Task contains subtasks related to project design costs, railroad project concurrence, MPMS data submission, and PMC approval information as outlined in Chapter 3, Section 3.04.
- 3. Design Tab. The Design Task contains subtasks related to environmental clearance, ROW clearance, MPT, D-4232 approval, PUC Application process, Agreements, Plan submissions, PUC Field Conferences and issuance of Secretarial Letters/Orders as outlined in Chapter 3, Section 3.05.
- 4. Bidding Tab. The Bidding task contains subtasks related to the bidding procedures and documentation as outlined in Chapter 3, Section 3.06.
- 5. Construction Tab. The Construction task contains subtasks related to issuance of NTP for construction, inspections, PUC final inspection, closeout certification, and inventory updating as outlined in Chapter 3, Section 3.07.
- 6. Invoicing Tab. The Invoicing tab displays the projects financial information pulled from MPMS, such as WBS/SPN details and FPN details. It also provides the user with a link to the D-4232 system to view the D-4232 for the project. Within the invoicing tab it allows the user to enter or change railroad design and

construction estimates, add reimbursement agreements with associated dollar amounts, and to add all invoices submitted for the project. The DGCE/A is required to input the necessary information pertaining to the railroad estimates, agreements, and invoicing. Once new agreements are entered into the system by the DGCE/A, the agreements can either be edited or deleted if needed. As invoices come in, the DGCE/A is to add them to GCEDMS, but it is important to remember that once the invoice data is entered into the system it cannot be edited, but the whole invoice itself can be deleted.

When using the invoicing tab, the user will not always see all of the options covered in this section at all times. GCEDMS checks MPMS for funding information. If there is no funding information in MPMS for the project, nothing will display in the WBS/SPN Details section. WBS/SPN Details and FPN Details on the Invoicing tab come from MPMS and cannot be changed in GCEDMS. Because there must be funding before an agreement, the "Add Agreement" link will not appear until funding information is in MPMS. And until there is an agreement entered the "Add Invoice" link will not appear. (Note: Entering invoices and agreements in GCEDMS *does not* change or add information in MPMS or SAP.)

When the DGCE/A receives an invoice from the Railroad, it is to be entered into GCEDMS. The DGCE/A can not add invoices until there is an agreement for the project. Once added, an invoice cannot be edited. It can only be deleted. Please note that the processing of payment does not occur in GCEDMS, payment of invoice is to occur though The Department's SAP system.

- 7. Documents Tab. The Document Tab displays a list of all documents associated with that grade crossing project and to view those documents provided that have been imported into GCEDMS though EDMS by the DGCE/A or linked through the PUC web service. The DGCE/A is required to import through EDMS using ECC all documents associated with the coordination of a grade crossing project from the initial planning and programming, through design and construction, to project closeout. This would include, but not limited to, all pertinent project correspondence and submissions, funding approvals, clearances, agreements, PUC documentation and submissions, right-of-way and/or construction plans, railroad invoices, etc.
 - a. Importing Grade Crossing Documents into EDMS using ECC's Content Services Import. (Refer to Section 8.04D for additional information pertaining to the GCEDMS / Grade Crossing Index Form.)
 - 1) Log into EDMS
 - 2) Click the **CS Import** link
 - 3) Click the Select file button
 - 4) The Select File dialog box displays
 - 5) Navigate to the file you want to import and click Open
 - 6) Enter the following taxonomy to import grade crossing documents:
 - a. Deputate/Office: Highway Administration
 - b. Bureau/District/Organization: Bureau of Design or District____
 - c. Division/Section: Railroad/Grade Crossing Section
 - d. Business Process: Grade Crossing
 - e. Document Class: Railroad/Grade Crossing Class
 - 7) Click the **go** button
 - 8) The index values display
- 8. Parties Tab. The Parties Tab allows the DGCE/A to add or delete contact information for railroad companies, Counties, Municipalities, and utility companies or others all of which are parties of record to the project.
- **C. Highway and/or Bridge Project Tabs.** Similar to the Safety Projects the Highway and/or Bridge projects with railroad involvement have various project tabs and under applicable tabs (task) there are a series of subtasks that follow the procedures outlined in Chapter 4. The documentation procedures mentioned above for the Safety Projects are to also be followed for the highway and/or bridge projects. Below is a listing of the tabs for a highway and/or bridge project along with the appropriate reference in Chapter 4.
 - 1. Crossing Tab. Refer to Refer to Section 8.04B.1 above
 - 2. Programming Tab. Refer to Chapter 4, Section 4.02

- 3. Design Tab. Refer to Chapter 4, Section 4.03
- 4. ROW Plan Tab. Refer to Chapter 4, Sections 4.04 and 4.05
- 5. Construction Plan Tab. Refer to Chapter 4, Section 4.06
- 6. Funding Agreement Tab. Refer to Chapter 4, Section 4.07
- 7. Construction Tab. Refer to Chapter 4, Section 4.08
- 8. Invoicing Tab. Refer to Section 8.04B.6 above
- 9. Documents Tab. Refer to Section 8.04B.7 above
- 10. Parties Tab. Refer to Section 8.04B.8 above
- **D.** GCEDMS / Grade Crossing Index Form. This form (Refer to Figure 8.6, GCEDMS / Grade Crossing Index Form) is used to complete the necessary index values to be entered when importing the document into EDMS. For all documents to be properly linked to the projects in GCEDMS it is necessary that at a minimum the following index values be completed.
 - AARDOT Number
 - MPMS Number
 - Document Type
 - Title Subject
 - Document Date
 - View Indicator (Note that the default value is No, indicating Yes means that the Railroad, based on their FID number and association with the project will be able to view the document.)

AARI	County: _ OOT Number:		<u> </u>	00 - 83			
	SR:	Interthe AAR or I	OTmmber ex: 999999X		1000		- 10 P
PUC I	Number:		zned romber ex: x-99999999		-15 11 12 3		
MPM	S Number:				View Indicator (Y	es/No)):
			mber consisting of romeric data	357			
Docu	nent type: (Circle o	or Check a Doctyp	e from list below) Note underline	d documen	nt types used for both backfilling :	& Current	.Projects.
	Advertisement Notice for PUC		Construction within 15 feet of Railroad		Meeting Minutes NTP for		Railroad Plan Railroad Property
	Hearing		Tracks		Construction to		Access Permit
	Assignment of		Cooperation		Railroad		Railroad Signs and
-	Contract		Agreement Design Agreement		Other Court	200	Markings
	Authorization for Preliminary	<u> </u>	Design Agreement to Central Office		Actions Other Letter		Railroad Specification
	Engineering for		Letter	9.75	Petition		Railroad Traffic
	Railroad		Design Agreement		Photo		Control Plan
	Cancel Agreemen		to Railroad Letter		Project Closeout		Railroad Traffic
	to Comptroller Certificate of		Design Agreement to Railroad Final		Letter to Comptroller for		Control Plan Approval
	Service		Letter		Railroad	п	Railroad Valuation
	Certification of		D4279 Railroad		Project Milestone	9	Мар
	Railroad		Crossing Data for		PUC Application		Recommended
	Agreement		Design		PUC Application		Decision
25	Completion		D4279A Railroad	25	Plan		
ш	Construction Agreement to		Crossing Data for Construction		PUC Field Conference		Request Recording of Property
	Central Office		Exceptions		PUC Final		Description
	Letter		Federal Funds -		Inspection		Response to
	Construction		4232		PUC Order		Interrogatory
	Agreement to		Hearing Data Other		PUC Q and P		
	Railroad Letter Construction		Hearing Data PENNDOT		PUC Secretarial Letter		Required from Railroad
-	Agreement to	п	THE RESIDENCE OF THE PARK		A		Safety Diagnostic
	Railroad Final		Announcement		Approval		Meeting
	Letter		Interrogatory		Railroad Bidding		
	Construction		<u>Letter to</u> Maintenance for	_	Documents Railroad Estimate		PM Transmittal of
	Inspector Report for Railroad		Crossing		of Cost		Order to Other
	lor marriodu		Letter to PUC with		Railroad Insurance		District Units
			Plans		Requirements		Verification
Title :	Subject (60 Bytes)						
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	A GCEDMS:/	/ 20	Inits:		 >		

Figure 8.6 – GCEDMS / Grade Crossing Index Form

- **E.** Railroad Access to GCEDMS. Once the Railroad is a registered business partner and has obtained access to GCEDMS, they are able to view the following information.
 - 1. Crossing Inventory. Railroad users can view crossing pictures but cannot update them and have no access to picture history. Railroad users have read-only access to Part I-V and PUC Documents tabs only. They have no access to Department confidential information.
 - 2. Crossing Projects. The railroad users have read-only access to the Crossing tab for which they can view crossing details. The Railroads have view only access to the Invoicing tab, but they have no access to the WBS/SPN Details, FPN Details, Railroad Estimates, and Agreements. The railroad users can download and submit documents using the Documents tab, but they can only view documents indexed with the Railroad's Federal ID, the project's MPMS number, and the ExtIndicator set to "Y". And finally the Parties Tab, the railroad users have read-only access.

The Railroads, based on their FID number, have read-only (view) access to the to the Crossing Projects for which their crossings are impacted by the project, as identified on the crossing inventory form, and the crossing has been added to the project in GCEDMS.

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CHAPTER 9

AT-GRADE CROSSING CONSOLIDATION/CLOSURE

9.01 INTRODUCTION

Another type of hazard elimination project as identified in 23 CFR § 646.206 is a grade crossing elimination project. This chapter provides a detailed discussion of At-Grade Crossing Consolidation/Closure and focuses on identifying public at-grade railroad-highway crossings that have the potential of being closed and the railroad-highway crossing closure incentive payments available through the Section 130 program and/or by the Railroad.

As defined in 23 CFR § 924 a public grade crossing means a railway-highway grade crossing where the roadway is under the jurisdiction of and maintained by a public authority and open to public travel. All roadway approaches must be under the jurisdiction of the public roadway authority, and no roadway approach may be on private property.

The first part of this chapter will outline ways and provide guidance in identifying at-grade crossings which have the potential of being closed, while part two focuses in the available incentive payments to local municipalities when a railroad-highway crossing on a local road is closed.

9.02 CROSSING CONSOLIDATION AND/OR CLOSURE ASSESSMENT

All highway and bridge projects involving railroad facilities shall be evaluated to determine the potential for consolidating or closing crossings that are impacted by the project. This includes both state and local at-grade crossings and highways under and over railroad facilities that are within ½ mile of the project limits. It is imperative that the DGCE/A and Project Manager (PM) identify potential consolidation candidate crossings in the initial programming stages of the project.

- **A.** Eligibility. Railroad crossings having any of the following characteristics should be considered as candidate for closing:
 - Crossing closures must occur where a safety concern or hazard exists, or, where the closing of the crossing will divert the user to an adjacent crossing where better safety conditions exist. Closing the crossing cannot create a safety concern at other locations.
 - Crossings are located within ½ mile of any crossing being upgraded or separated.
 - Redundant railroad crossing where the track crosses a road every few hundred feet.
 - Crossings where the geometrics of the highway and/or the track result in hazardous condition.
 - Crossing with minimal average daily traffic (ADT) where an alternative route is available.
 - Closure will not result in a creation of a trespass situation.

Candidate crossings should not serve as a main route for fire, ambulance, and other emergency or mass transit (school bus) vehicles.

- **B.** Preliminary Project Assessment. In order to assess the potential for consolidation and/or closure the following should be reviewed and documented as part of each crossing impacted by the project:
 - Highway and Bridge Projects Based on the project limits, identify all crossings meeting eligibility criteria within ½ mile of project limit.
 - Safety Projects Identify all crossings within ½ mile that meet eligibility criteria. In addition, the subject crossing should also be evaluated for closure prior to proceeding with project.

If no crossing is within ½ mile of project limits notify the PM that closure assessment is not required.

C. Crossing Investigation. In order to fully assess the targeted crossing(s) for possible closure the DGCE/A will need to collect as much information as possible prior to the field investigation and any discussions with railroad and

local officials regarding the possible closure of crossing. Much of the information can be obtained from FRA railroad inventory, GCEDMS, RMS and GIS maps (see Consolidation/Closure Assessment (CCA) Worksheet and Determination Form in Appendix B). It is also helpful to have an aerial photograph and a location map of the crossing. As part of the field investigation it is recommended that DGCE/A drive the roads several miles each way from the tracks to determine if the crossing could be closed or at least dead-ended.

Crossing investigation is broken into four parts: office assessment which includes project and crossing information, field investigation, local support determination and consolidation/closure assessment. Listed below are factors that impact each of the four areas that need to be addressed as part of the analysis. Appendix B contains two forms to be used in documenting a Consolidation/Closure Assessment. Form CCA Work Sheet allows the DGCE/A to document crossing information, field data and local support. The Consolidation/Closure Determination form is used to document why or why not the crossing should be considered as a candidate for closure.

1. Project Information:

- Location (County, City/Twp, Route, etc.)
- State/Local Crossing
- Funding (MPMS)

2. Crossing Information:

- Railroad Collect both operational and condition of crossing surfaces and warning devices. This
 includes the type of rail service and traffic.
- Safety Hazards Identify number and type of accidents at the crossing site. This includes both highway and railroad related accidents.
- Highway Includes pavement, traffic, and accident information.
- Location map Map should highlight location of adjacent crossings, emergency service facilities and school in the area.
- Aerial map (optional)
- Utility (optional)
- Noise (optional)
- **3.** Field Investigation. The field investigation will assist the DGCE/A in documenting and validating the reason for closing the crossing. At a minimum, the following factors should be reviewed as part of the field investigation:
 - Public convenience assessment. For example, during the field view you may be able to formulate
 solutions to inconveniences that may need to be addressed. For instance, where the public may
 want easy access to another crossing, you may find an unpaved road that runs parallel to the track
 and connects two separate streets which cross the track. It may be possible to pave the unpaved
 connector road and address the public's concern.
 - Identify and describe any safety hazard being eliminated by the closure.
 - Potential impact to property owners needs to be assessed. For example, a property owner may own property on both sides of the crossing. Closing the crossing may not allow easy movement between properties.
 - Another factor will be to assess where residents may benefit from a closure. For example, property
 owners near the crossing may be affected by lights and noise associated with the operation of
 crossing. Elimination of the crossing may result in a project addressing train and highway noise
 levels.
 - Locate businesses near the crossing. Owners may oppose closing the crossing because of the inconvenience to their customers, employees and suppliers.
 - Locate fire and emergency service facilities. Identify issues with service to homeowners and businesses due to the closure. Distance from the fire company and emergency providers should be documented. In cases where the crossing is closed and the new project does not provide sufficient response time for emergency services, a great deal of opposition will result. This may eliminate the crossing from consideration.

- Identify potential changes in vehicular traffic patterns due to closure. Will there be a need for a signalized intersection? If closure requires signalization improvements that are not addressed within the project document them and notify PM.
- In cases where facilities for pedestrian traffic are present document impact on their restriction.
- If ADA supported facilities are encountered they should be noted.
- **4.** Local Support. Buy-in is imperative if complications are to be avoided. Identify all parties that are affected by the consolidation and if possible, get their position on the potential closure of the crossing. Information regarding local crossings, community support, and future development in the area may be obtained by contacting the county, city, township, planning organization, and school district managers. Identify both primary and secondary providers of fire and emergency service.
- 5. Local At-grade Crossing Closures/Liquid Fuels Tax Participation. If the at-grade crossing closure involves terminating a local road on either side of the existing railroad-highway crossing, cul-de-sacs must be constructed having a vehicle turnaround area with a radius 40 feet or more should the local municipality wish to continue to receive Liquid Fuels funding for that public roadway.

As per Title 67, Chapter 449 "Liquid Fuels Tax Funds" a way, court, and alley established after December 13, 1975 will not be recognized as a road or street for purposes of Liquid Fuels Tax participation. A way, court, and alley are further defined as:

- Way—A short stretch of roadway having both terminals in a street or road and designed to provide
 access to properties abutting thereon.
- *Court*—A dead-end roadway designed to provide access to properties abutting thereon which has a length of less than 250 feet or a vehicle turnaround area with a radius of less than 40 feet.
- *Alley*—A narrow roadway, usually to the rear of abutting properties, designed for the purpose of access to the rear of the properties and not as a thoroughfare; and every roadway less than 16 feet in width.
- **D.** Consolidation/Closure Determination. Based on the data collected, field view and initial contact with effected officials the DGCE/A will complete the Consolidation/Closure Assessment Determination Form. Question 13 requires that a determination be made to go forward or not with the closure. If it is determined not to proceed with consolidation/closure, a copy of the form will be forwarded to the project manager for his files. If the DGCE/A determines that this crossing is a viable candidate the form will be forwarded to Project Manager, Central Office Grade Crossing Unit and District Management for consideration. If senior management agrees to go forward with the closure, the DGCE/A will be notified to proceed and will submit an application to the PUC.

9.03 INCENTIVE PAYMENTS

As outlined in 23 CFR § 646.206, grade crossing elimination is one out of three types of railroad-highway projects for the elimination of hazards to both vehicles and pedestrians. The elimination of an at-grade crossing can occur as a result of the proposed construction of a grade separated bridge, part of a corridor project involving installation of warning devices at one or more adjacent at-grade crossings, or as a stand-alone project. Similar to the PUC process for Safety projects outlined in Chapter 3 and Highway/Bridge projects outlined in Chapter 4, the elimination of an at-grade crossing must follow the same PUC process.

A majority of the at-grade crossings to be eliminated exist on local roadways; therefore, through the Section 130 program and/or by the Railroads, incentive payments to close the crossing can be offered to the local municipality. The Department, through the Section 130 program, can also fund the construction costs to remove the crossing. These construction costs are considered hazard elimination costs, similar to when Section 130 funds are used to add warning devices to an at-grade crossing that has only crossbucks. The following provides guidance for both the incentive payments and the construction costs for an at-grade crossing elimination project located on a local roadway.

A. The Department Incentive Payment. The Department will match the Railroad's incentive payment to close an at-grade crossing up to \$7,500. As per U.S. Code Title 23, Section 130 Railway-Highway Crossings - Part (i) "Incentive payments for At-Grade Crossing Closures", found below, that should the Railroad owning the tracks for

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which the crossing is located make an incentive payment to the municipality to close the crossing, The Department's incentive payment to the municipality will match the Railroad's incentive payment up to a maximum of \$7,500. The municipality is required to use the Department incentive payment for transportation safety improvements within the municipality (see Appendix H).

B. Construction Funding for Hazard Elimination Projects. As per 23 CFR § 646.208, funding of projects for the elimination of hazards at railroad-highway crossings are eligible for funds provided by U.S. Code 23 Section 133 (d)(1), which refers to Section 130 and Section 152 funds. Since grade crossing elimination is one of the three types of projects for the elimination of hazards, Section 130 and Section 152 funds can be used to fund the construction costs involved to remove the crossing. As further stated in Part 646.212 the Federal share of the project costs would be 90% through funds made available U.S. Code 23 Section 133 (d)(1) (see Appendix H).

CHAPTER 10

DESIGN-BUILD PROJECTS WITH RAILROAD INVOLVEMENT

10.01 INTRODUCTION

The purpose of this chapter is to provide additional guidance relative to the process and procedures required on design-build projects involving railroad facilities when coordinating with the Railroad, PUC, and other parties of interest. For additional background information and details pertaining to the process, and procedures regarding design-build projects refer to the Publication 448, *Innovative Bidding Toolkit*.

Typically, the entire design phase of a project (preliminary engineering and final design) is completed by either the Department in-house forces or through a design consultant. The project is then advertised, bid, and awarded to a contractor to construct. With Department projects that are design-build, the project delivery method is changed as the Department executes a single contract for both engineering services and construction. This means that the design phase of the project is modified to the extent that the Department performs the preliminary engineering phase of the project (either in-house or by design consultant forces), and then the project is advertised, bid, and awarded. The final design and construction phases are performed by the construction contractor and its design consultant. The fundamental element of design-build delivery is that one entity assumes primary responsibility for design and construction of the project.

10.02 RAILROAD AND PUC COORDINATION AND DELIVERY PROCESS

Although the Railroad and PUC coordination and delivery process for a design-build project involving railroad facilities is similar to that of a conventional Design/Bid/Build project involving railroad facilities as outlined in Chapter 4 there are a few details specific to design-build projects that need to be followed as outlined in this chapter.

Not all projects are suitable for design-build. A project that will have extensive railroad involvement, which is considered any services over and above flagging services, or involving alterations to railroad facilities are considered unsuitable for design-build. A list of project types to be considered for design-build are further defined in Publication 448.

A. Action Plan. Should a District proceed with a design-build project that requires any railroad involvement, the DGCE/A is required to prepare and submit an action plan to the District ADE-Design for approval of further processing. At a minimum, the Railroad Involvement/Coordination Action Plan is to document how all applicable Railroad Coordinate/Involvement activities will take place in accordance with this manual, along with a corresponding schedule.

The Action Plan should include the following:

- 1. Description of the Department's Highway/Bridge Project involving a railroad facility.
- 2. Indicate whether PUC involvement will be required. If "yes", provide an outline and schedule of the submissions and coordination activities that will occur with the PUC.
- 3. Will the project involve alterations to the existing highway-railroad crossing? If "yes", describe in detail the Railroad alterations. This description is to include what work will need to be performed by the Railroad and/or its contractor as part of the Department's project and how such railroad alterations will be coordinated with the Railroad.
- 4. If the project involves acquisition of railroad property, indicate whether railroad property will be acquired by amicable settlement or through PUC appropriation. In either scenario provide an outline and schedule of when the required ROW plan submissions will be made to the Railroad and/or PUC.
- 5. If the project does not involve railroad alterations, will railroad protective services (flagging) be required?

- 6. The Action Plan outline and schedule shall also address the following applicable tasks:
 - a. Coordination meetings with railroad
 - b. Submission of PUC application
 - c. PUC Field Conferences
 - d. Railroad property acquisition and required submissions to railroad and/or PUC
 - e. Obtaining PUC Orders/Secretarial Letters
 - f. Required submission of construction plans to the Railroad and/or PUC
 - g. Railroad reimbursement agreements (design and construction)
- **B.** Coordination Activities. Whether or not the project is a Design/Bid/Build or a design-build, all railroad and PUC coordination activities are to be done by the DGCE/A as outlined in this manual, specifically Chapter 4. Meaning at a minimum the DGCE/A would still be responsible for all the coordination needed with the PUC and Railroad(s). For example:
 - 1. Preparation and submission of a PUC application
 - 2. Attendance at PUC Field Conferences
 - 3. Preparation and execution of all State-Railroad agreements
 - 4. Making all required submissions to the PUC and all parties of record, such as final right-of-way plans and property descriptions, final construction plans, etc.
 - 5. Obtaining PUC Orders/Secretarial Letters and approvals from the PUC
 - 6. Reviewing and processing invoices received from the Railroad
 - 7. Use of GCEDMS for all document storage and project tracking
- C. **Delivery Process.** The DGCE/A shall adhere to and follow all applicable grade crossing design, right-of-way plan submission, final construction plan submission, and railroad construction funding and reimbursement agreement processes, and construction activities for both the Department and Local highway/bridge projects in accordance with that outlined in Chapter 4.

In addition to the railroad coordination and delivery process activities outlined in Chapter 4, the following outlines the delivery processes and activities specific to design-build projects.

- **1.** Preliminary Engineering Phase:
 - a. DGCE/A prepares and files PUC application for project. The project must be identified as a design-build project in the PUC Application. The PUC Application must include a copy of approved TS&L plans and/or Design Field View plans that clearly define railroad impacts such as horizontal and vertical clearances and impacts/adjustments to railroad facilities. If these plans are not included in the PUC Application, a separate submission will need to be made to the PUC and all parties or record prior to PUC issuing a Secretarial Letter or Order.
 - b. PUC to schedule and conduct a PUC Field Conference. The DGCE/A is required to attend all PUC Field Conferences.
 - c. The DGCE/A shall submit approved TS&L plans and or Design Field View plans, if not already done so as part of the initial PUC Application, to the PUC and all parties of record.
 - d. The DGCE/A shall prepare, process, and coordinate the execution of all necessary State-Railroad reimbursement agreements for both preliminary engineering and construction phases prior to advertisement. A copy of the draft and/or executed State-Railroad preliminary engineering and construction agreement(s) must be included in the Project Development Checklist (PDC) and they must be fully executed prior to NTP being issued to the design-build contractor. Should at any time the project require supplemental reimbursement agreements, it is the responsibility of the DGCE/A to have them prepare and have fully executed.
 - e. An initial PUC Secretarial Letter or Order must be obtained prior to being able to advertise the design-build project.

f. All appropriate Department standard railroad special provisions and project specific special provisions, D-4279/D-4279A forms, all draft or executed State-Railroad reimbursement agreements, railroad insurance documentation, Railroad Right-of-Entry (ROE) requirements for the contractor, railroad's specifications the Railroad requires to be included in the Department's contract, any PUC Secretarial Letters/Orders that have already been issued for this project, and Railroad Certification letter/memo, etc. are to be made a part of the Department design-build contract.

The Railroad Certification issued for the project must spell out all railroad coordination activities that still remain to be coordinated by the DGCE/A and the design-build construction contractor and its design consultant.

- 2. The Department advertises and lets the design-build project.
 - a. If the project requires PUC appropriation of railroad property, the DGCE/A is required to submit appropriate signed half-size copies of final signed right-of-way plans with the required metes and bounds descriptions to the PUC and all parties of record in accordance with the initial PUC Secretarial Letter/Order and this publication. See Chapter 2, Section 2.03 for more information.
 - b. The PUC will issue a PUC Order excerpt approving the right-of-way plans and including the metes and bounds descriptions. This PUC Order is to be recorded in the County Courthouse by the District Right-of-Way Unit and notification of such record shall be provided to the PUC by the DGCE/A.
 - c. As various stages of the construction plans are prepared, they must be submitted to the PUC, all the parties of record, specifically the Railroad, for review and approval by the construction contractor and/or its design consultant through the DGCE/A. The parties of record shall be provided with a 20 calendar day timeframe to review and respond back to the PUC with either an approval, comments, or objection to the construction plans that were submitted. After the 20 calendar day timeframe expires, the PUC will approve the detailed construction plan submission that was made. Note that construction cannot begin until the PUC approves the construction plans. Should any issues arise, the construction contractor or their design consultant shall notify the DGCE/A. The DGCE/A shall then inform the PUC accordingly.
 - d. Once the construction of the project is completed, final as-built plans shall be prepared by the construction contractor's design consultant. An appropriate number half-size copies of the final as-built plans within the jurisdiction limits set by the PUC are to be submitted to the DGCE/A by the construction contractor's design consultant.
 - e. The DGCE/A shall then submit appropriate copies of the final as-built plans to all parties of record and the PUC for approval in accordance with the PUC Secretarial Letter/Order and this publication.
 - f. The PUC schedule and conduct a final inspection and if everything is acceptable the PUC will issue a "case closed" letter.

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APPENDIX A

EXAMPLE LETTERS

For each example letter included in this appendix, the user must apply the appropriate Department letter and formatting based on the intended recipient. These templates are provided to give guidance for the contents of each correspondence and may require additional editing to address specific project circumstances. This appendix contains the following items:

- 1. Requesting Authorization for Identified Staff to File PUC Applications
- Example Letter to Railroad Requesting their Concurrence with Highway-Railroad Crossing Safety Project
- 3. Letter to Municipality Requesting Authorization
- 4. Example Resolution
- 5. PUC Application Cover Letter
- 6. Notice to Proceed Design
- 7. Final Right-of-Way Plan Submission to PUC
- 8. Notification of Recording to PUC
- 9. Final Construction Plan Submission to PUC
 - a. Example No. 1 Highway Plans
 - b. Example No. 2 Structure Plans
 - c. Example No. 3 Multiple Plans
- 10. Concurrence in Award
- 11. Notice to Proceed Construction with Concurrence in Award
- 12. Notice to Proceed Construction
- 13. Notification of Project Completion
- 14. Letter for Posting (Load Limit)
- 15. Changes in Parties of Record Letter to PUC
- 16. Railroad Certification letters
 - a. Federal Oversight Projects with Railroad Involvement
 - b. PennDOT Oversight or 100% State Projects with Railroad Involvement
 - c. Federal Oversight Projects without Railroad Involvement
 - d. PennDOT Oversight or 100% State Projects without Railroad Involvement
- 17. Buy America and BABA Certificate of Compliance
- 18. Sample Transmittal Letter for an Executed Agreement

Requesting Authorization for Identified Staff to File PUC Applications

(Date)

(Bureau Director's name), P.E. Director Bureau of Project Delivery PO Box 2966 Harrisburg, PA 17105-2966

Re: Department of Transportation Authorization for Filing Applications with the Public Utility Commission

Dear Mr./Ms. (Bureau Director's name):

Reference is made to the recent certification training on (*date of training*), provided to the District Grade Crossing Engineer/Administrator, Mr./Ms. (*name*) of my staff.

Since he/she has successfully completed the certification training required to file Applications with the Public Utility Commission, we request authorization to initiate this process. We will use the suggested quality control checklists provided during the training. We understand that we must follow the pre-established implementation plan presented at the training.

My Assistant District Executive – Design, Mr./Ms. (*name*), will be responsible for the accuracy and procedural compliance for all applications filed with the Public Utility Commission. Also, the appropriate signature delegation authority should be approved as documented in the attachment.

	Sincerery,
	District Executive
Concurrence	Date

cc: Deputy Secretary, Highway Administration, 8th Floor, CKB
Chief, Right-of-Way and Utilities Section, 7th Floor, CKB
OCC, Real Property Division, Utility Section, 9th Floor, CKB
District Executive
Assistant District Executive – Design
District Grade Crossing Engineer/Administrator
Manager, Transportation Division, Rail Safety Engineering Section, PUC, 3rd Floor, CKB

Example Letter to Railroad Requesting their Concurrence with Highway-Railroad Crossing Safety Project

(Date)

`	ilroad Contact Name and Title) dress)	
Re:	(County) (Municipality) AT-GRADE CROSSING SR, Section (or Local Road No. DOT #	ıme)
Dea	r Mr/Ms. :	

As you are aware the Department is in the process of programming the (year) Section 130 Highway-Railroad Safety Improvement Projects. The initial step in the safety project selection and programming process is the coordination efforts that have already occurred up to this point between the Department and the Railroad in the development of the safety project priority listing. Those project(s), which are listed below, will be utilizing federal safety funds and have been determined by the Department to meet the criteria and guidance set forth by Federal Highway Administration (FHWA) for the selection of railroad safety improvement projects.

Project: (SR-Sec and/or Local Road Name) crosses, at-grade, the _____ track(s) of (Railroad name) (DOT# ______) located in (Municipality), (County).
 (etc.)

Furthermore the project(s) listed above have also been identified by the Department as those which would fall under the procedures outlined in 23 CFR § 646.218 entitled "Simplified Procedure for Accelerating Grade Crossing Improvements", which allows for approval by FHWA for the use of safety funds for the project(s) prior to the formal submission of the application to the Pennsylvania Public Utility Commission (PUC). In order to satisfy those accelerated procedures the Department must formally obtain concurrence, in writing, from the Railroad containing, at a minimum, the following:

- 1. Identification of each crossing location. A location map for each project identifying the crossing location shall be attached to this letter.
- 2. Description of improvement and estimate of cost for each crossing location. This project description, which is to be attached to this letter, would be similar to the caption that would be used in PUC application.
- 3. Estimated schedule for completion of work at each location.
- 4. An understanding that no physical construction work will occur at the crossing until such construction plans have been approved by the PUC.
- 5. A commitment that the identified project can reasonably be expected to reach the construction stage within one year and be completed within two years after the FHWA has authorized the construction phase.

The Department is seeking your approval and concurrence to proceed accordingly. Should you concur and wish to proceed with the identified highway-railroad safety project(s) via the accelerated grade crossing improvement procedures, please sign and date at the space provided below and return the original copy back to me to retain in our project files.

Railroad Representative, Title	Date
the(se) projects which will be followed by a let	r, the Department will file an Application(s) with the PUC for tter from the PUC advising you of a diagnostic field view (PUC you have any questions with regards to this matter, please contact
	Sincerely,
	(DGCE/A name and title) Engineering District0 Department of Transportation

cc: Chief, Right-of-Way and Utilities Section, 7th Floor, CKB Gina M. D'Alfonso, Office of Chief Counsel, 9th Floor, CKB

Letter to Municipality Requesting Authorization

(Date) (Municipality Contact Name and Title) (Address) Re: (County) (Municipality) AT-GRADE CROSSING ___ (or Local Road Name) ECMS # _____ Dear Mr/Ms. ____: As you may be aware, the Commonwealth of Pennsylvania, Department of Transportation (the Department) is filing an application with the Pennsylvania Public Utility Commission (PUC) for the approval to ______ where (*Local Road Name*) crosses, atgrade, the _____ track(s) of (*Railroad name*) (DOT# ______) located in (*Municipality*), (*County*). This action is in accordance with the Section 130 Federal Rail Safety Program, which provides 100 percent Federal funding for the construction of railroad warning devices on public roads. The Railroad will seek reimbursement from the Department for 100 percent of the construction costs. Please sign, date, and affix the (Municipality) seal at the space provided on this letter and return the original to the District office. Please also provide a resolution agreeing to allow the Department to file this application on your behalf, and authorizing the Department to issue Notice to Proceed letters to the railroad for design and/or construction. If a resolution is not provided it will be presumed that by signature, date, and seal of this letter that you concur with these conditions and authority is granted, and no resolution is necessary. (Municipality Seal) Municipality Signature Date As a result of this action, the Municipality will receive a copy of the application that will be made by the Department to the PUC, which will then be followed by a letter from the PUC advising of a subsequent field conference at the crossing. Should there be any questions with regards to this matter, please contact _____ at (___) ___-_. Sincerely, (DGCE/A name and title) Engineering District -0

Department of Transportation

Example Resolution

BOROUGH (OF OUNTY, PENNSYLVANIA
	ON NO.
	BOROUGH, COUNTY COUNTY ILROAD CROSSING UPGRADES AT (Project location ITY COMMISSION.
WHEREAS, (Project location – street name); and) is a public roadway under the jurisdiction of the Borough o
WHEREAS, a railroad operates through over (<i>Project location – street name</i>); and	Borough, which Railroad maintains a crossin
	to the warning devices to be made pertaining to the railroa to the Pennsylvania Public Utility Commission ("PUC") b insportation ("PennDOT");
NOW THEREFORE, IT IS HEREBY RESO	OLVED by the Council of Borough as follows
PUC to install or permit the insta	If and for Borough to request approval of the allation of crossing upgrades, including, but not limited to the railroad crossing at (<i>Project location</i>) in
	If and forBorough to issue Notice to Procee on and/or construction at the railroad crossing at (<i>Projectugh</i>).
RESOLVED, thisth day of	, 2007, in public meeting duly noticed and assembled
ATTEST:	BOROUGI
Secretary	By:(Position & Title)
Secretary	(1 osmon & 1 me)
CERTIFIED true and correct copy of Resolu Borough.	ution No adopted (<i>Date</i>) by the Borough Council of

PUC Application Cover Letter

	(Date)
, Secretary	
Pennsylvania Public Utility Commission	
P.O. Box 3265	
Harrisburg, PA 17105-3265	
Re: (Enter caption used on the PUC Applicate	ion)
Dear Secretary:	
Enclosed for filing, please find the original	l copy of the Application of the Department of Transportation
A copy of this Application and Exhibits hat the Application.	as been served upon the parties in the Certificate of Service to
	Sincerely,
	(DGCE/A name and title)
	Engineering District0
	Department of Transportation

cc: Parties of Record Chief, Right-of-Way and Utilities Section, 7th Floor, CKB Gina M. D'Alfonso, Office of Chief Counsel, 9th Floor, CKB Supervisor, Rail Safety Engineering Section PUC, 3rd Floor, CKB

of

Notice to Proceed - Design

(Date)

(RR Contact)	
(Title)	
(RR Name)	
(Address)	
Re: (County) (Municipality) SR, Section (or Local Road DOT # PUC No Agreement No ECMS # Notice to Proceed - Design	ł Name)
Dear Mr./Ms:	
This is your official authorization to incu	or design charges in conjunction with the installation of we subject crossing.
Docket No, dated, a	ance with the Public Utility Commission's Secretarial Letter and Agreement No All clearances for the ith Part VIII, Manual on Uniform Traffic Control Devices.
	er, (<i>Railroad Name</i>) shall submit a situation plan and detail on approval by the Commission of plans, the Department will ion.
Please feel free to contact at (Thank you in advance for your cooperation.	_) if there are any questions or concerns.
	Sincerely,
	(DGCE/A name and title) Engineering District0 Department of Transportation

cc: Chief, Right-of-Way and Utilities Section, 7th Floor, CKB Supervisor, Rail Safety Engineering Section, PUC, 3rd Floor, CKB

Final Right-of-Way Plan Submission to PUC

(Date)
, Secretary
Pennsylvania Public Utility Commission
PO Box 3265
Harrisburg, PA 17105-3265
Re: (County)
(Municipality)
SR, Section (or Local Road Name)
DOT #
PUC No
ECMS #
Dear Secretary
Attached for approval is one copy of the signed Drawings Authorizing Acquisition of Right-of-Way for State Route, Section R/W in (<i>Municipality</i>), (<i>County</i>), consisting of sheets through of for total of sheets. The Right-of-Way plans were recorded in the (<i>County</i>) of Deeds Office in Map Book No, Page on (<i>Date</i>).
Also attached is one color-coded copy of sheet(s) of of the final signed Right-of-Way plans an one copy of the Property Description Tract to be appropriated by the Commission from (<i>Railroad Name</i>).
The Department of Transportation hereby avers that a set of the aforesaid final drawings and a copy of the property description are being sent to the following parties of record for examination simultaneously with the submission to the Public Utility Commission:
Mr, Chief Engineer
(Railroad)
(Tally odd)
Ms, Chairman
County Commissioners

Mr, Chairwoman
Township Supervisors
Mr
(Utilities)

We respectfully request the approval of these you have any questions or concerns, please feel fr	plans and the subsequent issuance of a PUC Order. Should ree to contact at ()
	Sincerely,
	(DGCE/A name and title) Engineering District0 Department of Transportation

Attachments

cc: Parties of Record Chief, Right-of-Way and Utilities Section, 7th Floor, CKB Gina M. D'Alfonso, Office of Chief Counsel, 9th Floor, CKB Supervisor, Rail Safety Engineering Section, PUC, 3rd Floor, CKB

Notification of Recording to PUC

(Date)	
, Secretary Pennsylvania Public Utility Commission P.O. Box 3265 Harrisburg, PA 17105-3265	
Re: (County) (Municipality) SR, Section (or Local Road Name) DOT # PUC No ECMS #	
Dear Secretary:	
The Department has recorded the certified copy of an excerpt of the Public Utility Commission C entered (<i>Date: MM/DD/YYYY</i>), in the subject proceeding.	rder
The date of the recording is (<i>Date: MM/DD/YYYY</i>) in Deed Book, Page, and the Instrum. No. is	nent
Sincerely,	
(DGCE/A name and title) Engineering District0 Department of Transportation	

cc: Chief, Right-of-Way and Utilities Section, 7th Floor, CKB Supervisor, Rail Safety Engineering Section, PUC, 3rd Floor, CKB

Example No. 1 – Highway Plans: Final Construction Plan Submission to PUC

(Date)
, Secretary Pennsylvania Public Utility Commission PO Box 3265 Harrisburg, PA 17105-3265
Re: (County) (Municipality) SR, Section (or Local Road Name) DOT # PUC No ECMS #
Dear Secretary:
In accordance with ordering paragraph number of PUC Secretarial Letter/Order at Docket No dated (<i>Date</i>), please find attached for your approval (<i>INSERT</i> : one half-size copy of the final signed Drawings <i>OR FOR eFILE</i> : one hard copy of the signed title sheet and a CD containing a copy of the final plans) for Construction of State Route, Section in (<i>County</i>), consisting of sheets through or construction plans. The Department of Transportation hereby avers that a complete set of the aforesaid final Drawings for Construction plans are being sent to the following parties of record for examination in accordance with the attached Certificate of Service. We respectfully request the approval of these plans and the subsequent issuance of a PUC Order. Should you have any questions or concerns, please feel free to contact at ()
Sincerely,
(DGCE/A name and title) Engineering District0 Department of Transportation
Attachments
cc: Parties of Record Chief Bight of Way and Utilities Section 7th Floor CVP

Chief, Right-of-Way and Utilities Section, 7th Floor, CKB Gina M. D'Alfonso, Office of Chief Counsel, 9th Floor, CKB Supervisor, Rail Safety Engineering Section, PUC, 3rd Floor, CKB

Example No. 2 – Structure Plans: Final Construction Plan Submission to PUC

(Date)
, Secretary
Pennsylvania Public Utility Commission
PO Box 3265
Harrisburg, PA 17105-3265
Re: (County)
(Municipality)
SR, Section (or Local Road Name)
DOT #
PUC No
ECMS #
Dear Secretary:
dated (<i>Date</i>), please find attached for your approval (<i>INSERT</i> : one half-size copy of the final signed Drawings <i>OR FOR eFILE</i> : one hard copy of the signed title sheet and a CD containing a copy of the final plans) for Construction of State Route, Section in (<i>County</i>), consisting of sheets, and of and one copy of half-size final signed Structure Plans for SR, Section (S) consisting of sheets through of The Department of Transportation hereby avers that a set of the aforesaid final Drawings for Construction plans and a set of Structure Plans (S) are being sent to the parties of record in accordance with the attached Certificate of Service.
We respectfully request the approval of these plans and the subsequent issuance of a PUC Order. Should you have any questions or concerns, please feel free to contact at ()
Sincerely,
(DGCE/A name and title)
Engineering District0
Department of Transportation
Attachments
cc: Parties of Record
Children and the care of the care

Chief, Right-of-Way and Utilities Section, 7th Floor, CKB Gina M. D'Alfonso, Office of Chief Counsel, 9th Floor, CKB Supervisor, Rail Safety Engineering Section, PUC, 3rd Floor, CKB

Example No. 3 – Multiple Plans: Final Construction Plan Submission to PUC

(Date)
Re: (County) (Municipality) SR, Section (or Local Road Name) DOT # PUC No ECMS #
Dear Secretary:
In accordance with ordering paragraph number of the PUC Secretarial Letter/Order at Docket No dated (<i>Date</i>), please find attached for your approval (<i>INSERT</i> : one half-size copy of the final signed Drawings <i>OR FOR eFILE</i> : one hard copy of the signed title sheet and a CD containing a copy of the final plans) for Construction of State Route, Section in (<i>County</i>), consisting of sheets through of Also attached to the set of construction drawings are the following half-size "Also" plans. 1. Traffic Control Plan consisting of sheets through of 2. Erosion & Sediment Pollution Control Plan consisting of sheets through of 3. Final signed Structure Plan (S) consisting of sheets through of 4. (<i>Etc.</i>) The Department of Transportation hereby avers that a complete set of the aforesaid final Drawings for Construction and "Also" plans are being sent to the following parties of record in accordance with the attached Certificate of Service. We respectfully request the approval of these plans and the subsequent issuance of a PUC Order. Should you have any questions or concerns, please feel free to contact at ()
Sincerely,
(DGCE/A name and title) Engineering District
Attachments

cc: Parties of Record Chief, Right-of-Way and Utilities Section, 7th Floor, CKB Gina M. D'Alfonso, Office of Chief Counsel, 9th Floor, CKB Supervisor, Rail Safety Engineering Section, PUC, 3rd Floor, CKB

Concurrence in Award

(Date) (RR Contact) (Title) (RR Name) (Address) Re: (County) (Municipality) SR ______, Section _____ (or Local Road Name) DOT # _____ PUC No. _____ Agreement No. _____ ECMS # Concurrence in Award Dear Mr./Ms. _____: The Department has reviewed the bids solicited and received by the Railroad for the subject project. We approve (Contractor's Name) as the company to be awarded the contract by (Railroad Name) at a cost of \$______ to provide the (surveying, engineering, and plans, materials and equipment, and installation of the railroad crossing warning devices) at the above subject crossing in accordance with the Public Utility Commission's Order at Docket No. . . You have satisfied the selection procedure with your Certification of Bid Opening form, the Certification of Independent Price Determination forms from each bidder, and your transmittal letter stating that (Railroad name) does not have the manpower to complete this project. Please feel free to contact _____ at (___) ___ - ___ if you have any questions of concerns. Thank you in advance for your cooperation. Sincerely, (DGCE/A name and title) Engineering District ____-0 Department of Transportation

cc: Chief, Right-of-Way and Utilities Section, 7th Floor, CKB

Notice to Proceed - Construction with Concurrence in Award

(Date) (RR Contact) (Title) (RR Name) (Address) Re: (County) (Municipality) SR ______, Section _____ (or Local Road Name) DOT # _____ PUC No. _____ Agreement No. _____ ECMS # _____ Notice to Proceed - Construction Dear Mr./Ms. _____: This is your authorization to incur construction charges in conjunction with (brief project description) on (Road Name) at-grade railroad crossing (DOT #_____) in (Municipality), (County). The PUC approved your situation and circuitry plans on (Date) and the Department issued you a concurrence in award to (Contractor's Name) on (Date). It is expected that you are familiar with the provisions set forth by Secretarial Letter at Docket No. dated (*Date*) and it is respectfully requested that you adhere to those said provisions. In accordance with paragraph ____ of the Secretarial Letter and Agreement No. _____, the Pennsylvania Department of Transportation shall reimburse the Railroad for ____% of the construction costs incurred up to a maximum total amount of \$_____, and (Railroad Name) shall bear all costs in excess of that Please feel free to contact _____ at (___) ___ - ___ if you have any questions or concerns. Thank you in advance for your cooperation. Sincerely, (DGCE/A name and title) Engineering District -0 Department of Transportation

cc: Chief, Right-of-Way and Utilities Section, 7th Floor, CKB Supervisor, Rail Safety Engineering Section, PUC, 3rd Floor, CKB

Notice to Proceed - Construction

(Date)

•	Contact)
(Titl	·
•	Name)
(Add	dress)
Re:	(County)
	(Municipality)
	SR, Section (or Local Road Name)
	DOT #
	PUC No
	Agreement No.
	ECMS #
	Notice to Proceed - Construction
Dea	r Mr./Ms:
	Your Situation and Detail Circuit Plans for the improvement at the subject crossing has been approved.
The	refore, this is your official authorization to proceed with construction of the proposed improvement.
	The work should be accomplished in accordance with the Public Utility Commission's Secretarial Letter
	Oocket No, dated and Agreement No All clearances for the allation of protective devices must comply with Part VIII, Manual on Uniform Traffic Control Devices.
	As per paragraph(s) of the Secretarial Letter, the Pennsylvania Department of Transportation shall aburse the Railroad for the construction costs incurred up to a maximum total amount of, and ilroad Name) shall bear all costs in excess of that amount.
Tha	Please feel free to contact at () if you have any questions or concerns. nk you in advance for your cooperation.
	Sincerely,
	(DCCE/A LCA)
	(DGCE/A name and title)
	Engineering District
	Department of Transportation
	Chi c Di la cara la tata di ata di at
cc:	Chief, Right-of-Way and Utilities Section, 7 th Floor, CKB Supervisor, Rail Safety Engineering Section, PUC, 3 rd Floor, CKB
	bupor, item burer, Engineering beetion, 100, 5 11001, CKD

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Notification of Project Completion

(Date)
, Secretary	
Pennsylvania Public Utility Commission	
P.O. Box 3265	
Harrisburg, PA 17105-3265	
RE: (The reference paragraph shall be captioned on the	e PUC Order/Secretarial Letter)
Dear Secretary:	
In accordance with paragraph of PUC Secretarial please be advised that the Pennsylvania Department construction of the above reference project in accordance (brief Description of Project) was/were completed on (Description of Project)	of Transportation has satisfactorily completed the ee with the approved plans and this order. The new
A copy of this letter is being sent to all parties of reco Utility Commission.	ord simultaneously with this submission to the Public
Since	rely,
Engin	CE/A name and title) neering District0 rtment of Transportation

cc: Parties of Record Chief, Right-of-Way and Utilities Section, 7th Floor, CKB Gina M. D'Alfonso, Office of Chief Counsel, 9th Floor, CKB Supervisor, Rail Safety Engineering Section, PUC, 3rd Floor, CKB

District Bridge Engineer

Letter for Posting (Load Limit)

	(Date)
P.O.	, Secretary c Utility Commission Box 3265 sburg, PA 17105-3265
(: :	(County) (Municipality) SR, Section (or Local Road Name) DOT # PUC No
Dear	Secretary:
tracks	The Department of Transportation requests that the (<i>Bridge</i>) carrying S.R. (<i>State Route No.</i>) over the s of (<i>Railroad Name</i>) in (<i>Municipality</i>), (<i>County</i>), be posted for a load limit of (# of tons) for a single sele and (# of tons) for a combination vehicle. The structure is not posted at the present time.
	Attached is a copy of the report from Engineering District0 entitled "Bridge Posting Recommendation Sheet."
	Sincerely,
	(DGCE/A name and title) Engineering District0 Department of Transportation
Attac	chments
	Director, Bureau of Project Delivery Chief, Bridge Design & Technology Division Chief, Asset Management Division Chief, Right-of-Way and Utilities Section, 7 th Floor, CKB Gina M. D'Alfonso, Office of Chief Counsel, 9 th Floor, CKB District Executive

Supervisor, Rail Safety Engineering Section, PUC, 3rd Floor, CKB

Changes in Parties of Record Letter to PUC

	(Date)	
, Secretary		
Public Utility Commission P.O. Box 3265 Harrisburg, PA 17105-3265		
Re: (County) (Municipality) AT-GRADE CROSSING SR, Section (or Local Road DOT # PUC No	ł Name)	
Dear Secretary:		
I am writing in order to update the official P change the information for the following parties	Parties of Record for PUC Docket No as indicated:	Please
From: (Name, title) (Company name) (Address)		
<u>To</u> : (Name, title) (Company name) (Address)		
Please add the following parties as indicated: (Name, title) (Company name) (Address)		
A copy of this letter is being sent to all partie Utility Commission.	s of record simultaneously with this submission to the	Public
	Sincerely,	
	(DGCE name and title) Engineering District0 Department of Transportation	
cc: Revised Parties of Record Chief, Right-of-Way and Utilities Section, 7 Gina M. D'Alfonso, Office of Chief Counse Supervisor, Rail Safety Engineering Section	el, 9 th Floor, CKB	

Sample Railroad Certification Letter for Projects that are Federal Oversight with Railroad Involvement

(Date)

Ms. Renee Sigel Division Administrator Federal Highway Administration 228 Walnut Street, Room 508 Harrisburg, PA 17101-1720	
Re: Railroad Certification Federal Oversight Project with Railroad Involvement County: SR-Sec: ECMS#: FPN:	
Dear Ms. Sigel:	
This is to certify that all railroad arrangements/coordination have been made for the above referent project to be undertaken and completed as required for proper coordination with the physical construction schedules in accordance with 23 CFR § 635.309.	
*The estimated execution date of the State-Railroad construction agreement having agreement num for the project is, 20	ıbeı
If you have any questions with regards to this Railroad Certification, please contact Mark J. Chapp P.E., Right-of-Way and Utilities Section, at (717) 787-8298.	pell
*Note-remove paragraph only if State-Railroad Agreement has already been executed.	
Sincerely,	
(Name)	
Director	

Bureau of Project Delivery

Sample Railroad Certification Memo for PennDOT Oversight or 100% State Projects with Railroad Involvement

DATE:	
SUBJECT:	Railroad Certification (Insert PennDOT Oversight or 100% State) Project with Railroad Involvement County: SR-Sec: ECMS#: FPN: (if applicable)
TO:	(District Executive)
FROM:	(Name) Director Bureau of Project Delivery
to be undert	to certify that all railroad arrangements/coordination have been made for the above subject project taken and completed as required for proper coordination with the physical construction schedules in with 23 CFR § 635.309*.
	timated execution date of the State-Railroad construction agreement having agreement number r the project is, 20**
-	have any questions with regards to this Railroad Certification, please contact Mark J. Chappell, of-Way and Utilities Section, at (717) 787-8298.
	in accordance with 23 CFR § 635.309" if the project is 100% State funded.

Sample Railroad Certification Letter for Projects that are Federal Oversight without Railroad Involvement

(Date)

Divisi Federa 228 W	enee Sigel on Administrator al Highway Administration Valnut Street, Room 508 burg, PA 17101-1720	
F C S E	ailroad Certification ederal Oversight Project without Railroad founty: R-Sec: CMS#: PN:	Involvement
T need t schedu If	o be undertaken and completed as requiralles in accordance with 23 CFR § 635.309	roject has no railroad involvement or coordination that would red for proper coordination with the physical construction $O(b)$. this Railroad Certification, please contact (<i>Name</i>), (<i>Title</i>)
		Sincerely,
		(Name) (Title)

District ___-0

Sample Railroad Certification Memo for PennDOT Oversight or 100% State Projects without Railroad Involvement

DATE:	
SUBJECT:	Railroad Certification (Insert PennDOT Oversight or 100% State) Project without Railroad Involvement County: SR-Sec: ECMS#: FPN (if applicable):
то:	(District Executive)
FROM:	(District PM)
need to be schedules in	to certify that the above subject project has no railroad involvement or coordination that would undertaken and completed as required for proper coordination with the physical construction accordance with 23 CFR § 635.309*. have any questions with regards to this Railroad Certification, please contact at ()

*Remove "in accordance with 23 CFR § 635.309" if the project is 100% State funded.



COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF TRANSPORTATION

BUY AMERICA and "BUILD AMERICA, BUY AMERICA" (BABA) CERTIFICATE OF COMPLIANCE

Date		
WE,		
	(Railroad)	
A dilunga.		
Address:		
hereby certify that we are in compliance with the	"Buy America" and BABA require	ements of this project.
Project Name	County	Agreement No.
As required, we will maintain all records and doo	cuments pertinent to the Buy Ameri	ca and BABA requirements, at
the address given above, for not less than three (3) years from the date of project cor	mpletion and acceptance. These
files will be available for inspection and verificat	ion by the Department and/or FHW	VA.
We further certify that the total value of foreign s	steel and construction materials as d	escribed in the Buy America and
BABA requirements for this project is \$, said value be	eing less than 0.1% of the total
contract price or \$2,500.00, whichever is greater.		
Name	Title	
Signature		

Sample Transmittal Letter for an Executed Agreement

(Date)

(Railroad Contact) (Title) (Address) (City, State Zip) RE: Agreement No. _____ County _____, MP _____ Dear Mr./Ms. Enclosed please find a copy of signed Agreement No. _______, executed on , 20 for the (insert project information). *Also included is the notarized Certification Statement. If you have any questions with regards to this Agreement, please me at (____) _____. * Add this sentence only when including the Certification (from the P drive) to Norfolk Southern. Sincerely, (Name) (Title) District -0

Pennsylvania Department of Transportation

APPENDIX B

STANDARD FORMS

This appendix contains the following items:

- 1. Railroad Crossing Data Forms (D-4279 and D-4279A)
- 2. Diagnostic Analysis Form
- 3. Certificate of Independent Price Determination
- 4. Certificate of Bid Opening / Solicitation of Bids
- 5. Certification of Railroad Agreement Completion
- 6. Consolidation / Closure Assessment (CCA) Worksheet and Determination Form
- 7. Railroad Certification Compliance Check List

D-4279 (12-14) RAILROAD CROSSING	
LOCATION:	
County	City, Borough, Township
Route Section	Highway Station
Name of Railroad	Branch
DOT No.	Railroad Mile Post
Width RR R/Wm; (ft)	
Does a fiber optics cable occupy RR R/W?	\square Yes \square No \square Unknown
Name of Fiber Optic Company	
Minimum horizontal clear (to obstruction):	_m; (ft) (To toe of slope) m; (ft)
Minimum vertical clear m; (ft)
Number of daily switching movements at crossing	
RAIL TRAFFIC:	
Number passenger trains daily	Max speedkm/hr (mph)
Number freight trains daily	Max speedkm/hr (mph)
Number main line tracks	Electrified
Number branch line tracks	Electrified
Number spur or siding tracks	Electrified
Can any existing tracks be removed?	
Additional track space requested	
Have plans been prepared for additional tracks? _	
When will tracks be constructed?	
Is off track equipment being used?	
Are any toxic chemicals, fuels or wastes being had	uled on any of the rail lines? \Box Yes \Box No
REMARKS:	
	Railroad Company
	by
	Name

Title

D-4279A (12-14)

RAILROAD CROSSING DATA FOR CONTRACTOR

R	Date:	

<u>PART A</u> - Project Information & Description to be completed by the District
(Instructions: The District is to complete Part A then submit the D-4279A form to the Railroad for
completion of Part B of this form. Submission of the D-4279A form to the Railroad should occur during the
Final Design phase of the project. Information provided on this form could be used in the preparation of the
written agreement between the State and the Railroad Company if required, that addresses the 12 items as

wr		ween the State and the		is form could be used in the pr my, if required, that addresses		
PR	OJECT INFORM	ATION: Project Title:				
		· ·		pality		
Ro						
				Type of Crossing		
ΜF	PMS No.	ECMS No	·	PUC Doc. No		
Pro	oject Funding	(%) Federal	(%) State _	(%) Local		
== PA (In	structions: The Rai	on to be completed by	art B of this form	======================================	any supporting	
Ge	eneral Information					
	1 10					
Ra	ilroad Operator:					
1.	* *	er what conditions will		allowed to work over the trace	ks or within the	
2.	(a) Describe the v	work which will be perfo	ormed by railroad	d forces at the job site.		
	(b) How many rail	road employees will be	assigned to worl	c at the job sites?		
3.	_			olition of the existing bridge?	□ Yes □No	
	If so, under what of	constraints?				

	(b) Will your company require a shield be erected over your tracks to protect your property from falling debris during demolition of the bridge? ☐ Yes ☐ No.					
4.	(c) If a shield is required, what vertical clearance from the top of the rail to underside of shield will you require and what design load do you want specified for the shield? What identifying name and/or number would you prefer to be utilized in reference to this project?					
						5.
	How many working days required for C&S line relocations?					
<u>Tr</u>	ain Movements/Speeds					
6.	Will temporary track outages be permitted during construction? ☐ Yes ☐No					
	If so, under what conditions?					
7.	Will your company agree to restrict train speeds through the project area during construction? □Yes □ No					
8.	Total Number of current <u>Daily</u> Train Movements and Speed of Trains at crossing.					
	Number of Passenger Trains Number of Freight Trains					
	Number Switching Trains Total Daylight Through Trains (6AM to 6PM)					
	Typical Speed Range (mph) Maximum Time Table (mph)					
W	atchmen/Flagmen Requirements					
9.	Will your company require watchmen/flagmen? ☐ Yes ☐ No					
	If "Yes" please complete the following.					
	(a) Is watchmen/flagmen required at all times or just when track is active?					
	(b) How much advance notice is required to be provided to your company for scheduling of watchmen/flagmen? weeks/days/hrs					
	(c) What are your company's current costs for protective services? \$/day/hour					
	(d) In cases where the Department's project only involves state and/or local funding, will you accept payment for protective services directly from the Department's contractor provided the required services are less than 5 working days?					
Ra	nilroad Insurance Requirements					
10	. Is this an operating or non-operating Railroad? □ Operating □ Non-Operating					
	If a non-operating railroad, do you waive the Railroad Insurance coverage requirements? $\ \Box$ Yes $\ \Box$ No					
	If waived, do you need to be additionally insured on the project general liability insurance? \Box Yes $\;\Box$ No					
11	. Does this involve the Right-of-Way of a National Railroad $\hfill \ $ Yes $\hfill \ $ No					

	Contractor:					
	Coverage Type	Cover Limits				
	a. Railroad's Protective Public Liability Insurance					
	b. Contractor's Public Liability and Property Damage Insurance					
	c. Contractor's Protective Public Liability and Property Damage					
	d					
	e					
13.	If a temporary grade crossing is required, what procedures are necessary to copy of Railroad procedures.)					
14.	Describe any special license or permit fees required of the contractor.					
15.	5. Is a Right of Entry Permit/Agreement required to be obtained by the contractor? (Completion of this information does not replace or satisfy the requirements outlined in 23 CFF 646.216(e)(2)(iii) pertaining to Railroad property interest.) If "Yes" please complete the following.					
	(a) Right of Entry Permit Requirements: (Explain when an Entry Permit contractor and conditions/restrictions of the permit or attach copy of Range	is required by the Department's				
	(b) Process for obtaining a Right of Entry Permit: (Explain the process contractor to obtain an Entry Permit from the Railroad or attach copy of					
	(c) Timeframes associates with a Right of Entry Permit: (Explain Entry Fattach copy of Railroads procedures.)					
	(d) Costs of a Right of Entry Permit: (Explain to required fee(s) to	to accompany Entry Permit.)				

12. List the types of Railroad Insurance coverage and coverage limits required to be obtained by the

Railroad Contact Information

16. R	ailroad representative for contact by the Department's contractor for insurance requirements.
	Name:
	Title:
	Address:
	Telephone Number:
17. R	ailroad representative for contact by the Department's contractor for Railroad Protective Services.
	Name:
	Title:
	Address:
	Telephone Number:
Railro	oad Specifications/Design Standards
	oes the Railroad have Standard Special provisions that are to be included with the Department's onstruction bid contract? \Box Yes \Box No
	"Yes" please indicate where an electronic version can be obtained or attach a copy to this completed form hen returned to the District.

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This document and any and all related data contained herein is strictly confidential and not subject to disclosure or discovery or to be admitted into evidence in any Federal or State court proceeding, nor shall any parties signatory to this document be required or compelled to give testimony pertaining to the information, observations, conclusions, recommendations and any and all related data contained herein. (23 USCS§ 409 and 75 Pa.C.S. §3754 (b))

Diagnostic Analysis Form PROJECT IDENTIFICATION **Date:** _____ **Highway Project Identification** DOT Crossing number _ _ _ _ _ PUC Docket Number _____ MPMS Number_____ CMS Number _____ FAPN _____ Project Agreement Number **General Information** SR _____ Segment ____ Offset County City, Boro, Twp. Operating Railroad Railroad Property Owner _____ **Data to Support Diagnostic Team Analysis Existing Warning Devices** Passive Warning Devices **Active Warning Devices** Crossbucks __ Gates Railroad Advance Warning Signs __ Mast Mounted Lights Pavement Markings __ Cantilevered Flashing Lights __ Hump Signs __ Bells Others __ Wigwags Others **Highway Traffic Data** Posted speed limit ______% of trucks ______ School bus use _____ Hazardous material use Accident history _____ Pedestrians _____ Others

Page 1 of 3

i.e. Special/unusual condition, anticipated future growth, etc.

Railroad Data

This document and any and all related data contained herein is strictly confidential and not subject to disclosure or discovery or to be admitted into evidence in any Federal or State court proceeding, nor shall any parties signatory to this document be required or compelled to give testimony pertaining to the information, observations, conclusions, recommendations and any and all related data contained herein. (23 USCS§ 409 and 75 Pa.C.S. §3754 (b))

	Number of freight trains	/dav/weel	k/vear	
	Number of passenger trains		•	
	Train speed			
	Number of mainline tracks			
	Trains carrying hazardous n			
	Whistle ban in effect (yes/no			
	Crossing Surface type	condition	1	-
<u>C</u> 1	rossing Geometrics			
	Angle of crossingSight distance from all high		ėks	- -
	Highway pavement approac	h conditions (all direction	18)	_
	Highway approach vertical a	and horizontal alignment		_
	Highway width I	Number of lanes	typical section desc	
	Proposed roadway realignm			
Departmen	t Recommendations for Insta		evices and Appropriate	
Preparer's S	Signature		ate	
-				

This document and any and all related data contained herein is strictly confidential and not subject to disclosure or discovery or to be admitted into evidence in any Federal or State court proceeding, nor shall any parties signatory to this document be required or compelled to give testimony pertaining to the information, observations, conclusions, recommendations and any and all related data contained herein. (23 USCS§ 409 and 75 Pa.C.S. §3754 (b))

Conditions to be analyzed by Diagnostic Team in determining crossing protection.				
Note: Adequate warning devices are to include automatic	gates with flashing light signals when one or			

m	ore of the following conditions exist (check as appropriate):
	Multiple main line railroad tracks.
	Description:
	Multiple tracks at or in the vicinity of the crossing which may be occupied by a train or locomotive so as to obscure the movement of another train approaching the crossing.
	Description:
	High-speed train operation combined with limited sight distance at either single or multiple track crossings.
	Description:
	A combination of high speeds and moderately high volumes of highway and railroad traffic.
	Description:
	Either a high volume of vehicular traffic or high number of train movements, substantial number of school buses, substantial number of trucks carrying hazardous material, unusually restricted sight distance, continuing accident occurrences, or any combination of these conditions.
	Description:
	A Diagnostic Team recommends them.
NO'	TES: o See Page 741 of 2001 AASHTO Green Book 4th Edition for Sight Distance Charts.

- o Additional Sheets may be attached as needed.
- o Do not purge this form.

Page 3 of 3

Signature

Certificate of Independent Price Determination

Pro	ject l	dentification		
a.		submission of this bid or proposal, each bidder or offeror certifies, and in the case of a joint bid or posal each party thereto certifies as to its own organization, that in connection with this procurement:		
	1.	The process in this bid or proposal has been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or offeror or with any competitor;		
	2.	Unless otherwise required by law, the prices which have been quoted in this bid or proposal have not been knowingly disclosed by the bidder or offeror and will not knowingly be disclosed by the bidder or offeror prior to opening, in the case of a bid, or prior to award, in the case of a proposal, directly or indirectly to any other bidder or offeror or to any competitor; and		
	3.	No attempt has been made or will be made by the bidder or offeror to induce any other person or firm to submit or not to submit a bid or proposal for the purpose of restricting competition.		
b.	Eac	h person, signing this bid or proposal certifies that:		
	1.	He is the person in the bidder's or offeror's organization responsible within that organization for the decision as to the prices being bid or offered herein and that he has not participated, and will not participate, in any action contrary to (a) (1) through (a) (3) above; or		
	2.	(1) He is not the person in the bidder's or offeror's organization responsible within that organization for the decision as to the prices being bid or offered herein but that he has been authorized in writing to act as agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to (a) (1) through (a) (3) above, and as their agent does hereby so certify; and (ii) he has not participated, and will not participate, in any action contrary to (a) (1) through (3) above.		
Naı	ne (F	Print) Company		

B - 10

Date

Certificate of Bid Opening

Solicitation of Bids

Project Identification		
The undersigned hereby certifies that a	all bids received for the al	pove referenced project were open
at, on	(date)	
The following organizations submitted	bids which were opened	at this time:
	Railroad Name	(Print)
	Name	(Print)
		Signature
		Title
		Date

Certification of Railroad Agreement Completion

Federal Project No.:		
County:		
County:, Sec	tion	
Railroad:		
MPMS #		
numbered	rsement Agreement, between the Departn and dated Il necessary railroad force account work h	, in our judgment
manner on a timely basis		as seen performed in a satisfactory
The Railroad's final bill h	nas been reviewed and accepted by techni	ically qualified Department personnel.
	accomplished by the Railroad at a reason	able total reimbursable cost of
This Certification is subn Agreement.	nitted in lieu of an audit as full considerati	on for the close-out of the above
	eral Highway Administration's complete a Federal guidelines, rules, and regulations.	•
	ATTEST, COMMONWEALTH OF PE	ENNSYLVANIA
_	Director, Bureau of Project Delivery	Date

CONSOLIDATION/CLOSURE ASSESMENT CCA WORKSHEET

DGCE/A: Date:
Project Type (Check): Safety Highway Bridge Other
General Information
DOT Number: TWP Road: or SR: Segment: Offset: County (Code/Name): Boro / Twp / City :
Project References
Project Manager: Phone:
Project Title:
MPMS: FPN: SPN/WBS: PUC:
Railroad Information
1. Check type of rail traffic that applies:
High Speed Corridor Passenger Freight
2. Train Information:
Normal Daily Train Moves; Day (6am-6pm); Night (6pm-6am)
Maximum Daily Train Moves (Yes/ No)
Maximum Train Speed mph. Is train speed variable? (Yes/No)
Normal Passenger Train Speed; Normal Freight Train Speed
Number of TracksThru;Switching/Auxiliary
Existing Preemption (Yes/No)
3. Highway Information:
• Network:
Existing Average Daily Traffic (ADT) Percent Trucks
Projected ADT Increase Per Year% School Bus Factor
4. Crossing Information:
Crossing Surface Type: Condition:(Good/Fair/Poor)
Existing Warning Devices (Check): Cross bucks Cantilevers Flashers Cantilevers & Gates STOP Signs Other
Is this railway track a candidate for future abandonment or is any significant increase or decrease anticipated in train tra at this location? (Yes/No/Unknown)

Publication 371 Grade Crossing Manual

DGCE/A:		Date:	
DOT #:			
Field Investigation			
Date:// Name(s): No. of Field Photos Attached			
1. Optional: If aerial photograph av	vailable, attach to closing form packa	ge.	
Date of aerial photograp	h/ Photo No		
2. Crossing Sketch			

- a. Indicate road name/state road number and intersecting alternative road.
- Indicate quadrants with sight distance problems and type of problem. b.
- Indicate paved or unpaved roadways. C.
- Indicate railroad name and track configuration.
- Indicate type of road, (i.e., connector, dead end, etc.).
- Indicate location and type of warning devices at adjacent crossings. Indicate distance to adjacent crossings and alternative road routes. f.
- Indicate type of warning devices at adjacent crossings. h.
- i. Indicate obscuring view, high embankments, horizontal & vertical curves.
- j. Show existing and proposed traffic patterns including length of road in miles.
- Indicate approximate location and names of local businesses, location of adjacent homes
- Any other pertinent information.

Publication 371 Grade Crossing Manual

DGCE/A:	Date:
DOT #:	
Local Sup Focus on	<u>oport</u> - Include name and date of contact. If possible determine why individual supports or does not support closure of crossing. safety versus connivance.
1.	Railroad:
2.	District:
3.	County:
J.	County:
4.	City/Municipality/TWP:
5.	School District:
6.	Fire Services:
7.	Emergency Services:
8.	Other:

CONSOLIDATION/CLOSURE ASSESMENT DETERMINATION

DGC	E/A: Date:
DOT	#:
1.	What is/are the reason(s) this crossing is proposed to be closed?
2.	Provide the estimated ADT on alternative road routes after traffic shift (list affected roads and respective traffic changes):
3.	What roadway modifications will be required?
4.	What impact on snow removal operations?
5.	If any, how much additional mileage is required because of the re-routing of roadway traffic due to the closing of the crossing? How much inconveniences in terms of alternative route time will the closing cause?
6.	Are there any nearby safety operations such as fire, police or rescue departments which could be adversely affected by the closing of the crossing?
7.	Is the crossing located on a bus route (public/School)?
8.	Do any of the other roads in the vicinity of the crossing need to be upgraded to facilitate traffic movement if the crossing is closed?
9.	If the crossing is closed, will any railroad residues remain that may be abandoned?
10.	How many business and homes could be affected by the closing? If so, provide company and development name.
11.	Is road part of a future thoroughfare or any other long term development project?
12.	Do you anticipate any local opposition? If so, who and why? (For example, city Officials, local citizens, local industries, etc.)
13.	Would you recommend closing this crossing (include any pertinent comments)?

Ra	ailroad Certification Compliance Check List	Date//
From:		
Title:		
District:		
To:	(CO Grade Crossing Engineer)	
Bureau of Project Delivery – Utilitie		
Grade Crossing Unit	os and ragni or way socialis	
PROJECT:		
Country	SR-Section:	
PUC Docket:		
ECMS No.:		
Agreement No:		
646.216 (d)? Yes No; 1	e State and Railroad Company that completely addresses Explain: illroad agreement applicable to any protective services requ	
	ations and special provisions for any construction contract	
property interests (23 CFR 646.216 (e)(2)	any easements, right-of-way, temporary crossings for con (iii))? Yes No	struction purposes or other
	nce where each of the twelve points listed below can b and the Railroad and location where it can be found w	
1. The provisions of this subpart and of	f 23 CFR part 140, subpart I, incorporated by reference	ce.
2. Detailed statement of the work to be	performed by each party.	
3. Method of payment (either actual cos	et or lump sum).	

Date:___

	Railroad Certification Com	apliance Check List	Date//
Page 2 of 2 PROJECT: County PUC Docket: ECMS No.: Agreement No:	DOT No. FPN:		
4. For projects which are not for the e obligated to move or adjust its facilit	-	-highway crossings, the ex	stent to which the railroad is
5. The railroad's share of the project	cost.		
6. An itemized estimate of the cost of	the work to be performed by the	e railroad.	
7. Method to be used for performing a	the work, either by railroad forc	es or by contract.	
8. Maintenance responsibility.			
9. Form, duration, and amounts of ar	ny needed insurance.		
10. Appropriate reference to or ident	ification of plans and specificatio	ons.	
11. Statements defining the conditi performance of the work, the type of			
12. Provisions regarding inspection of	of any recovered materials.		
REVIEWED			
By:			

APPENDIX C

PUC APPLICATION TEMPLATE

- 1. Sample Form. The standard form provided on the following pages is to be used for all applications by PennDOT to the PUC.
- 2. PUC Application Captions and Paragraphs 4, 6, & 7 for various types of projects.
 - a. Warning Devices
 - b. Warning Devices with Gates
 - c. High-Type Surface
 - d. Warning Devices and High-Type Surface
 - e. Warning Devices, High-Type Surface, and Track Removal
 - f. Highway Widening
 - g. Highway Lowering
 - h. New Bridges
 - i. Replace Superstructure
 - j. Abolitions
 - k. Exempt Signs
 - 1. Drainage Pipe

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of the Department of Transportation of the Commonwealth of Pennsylvania for approval to (alter/change/modify) the public (at grade/above grade/below grade) crossing by the installation of (insert description of work) where (insert road name) crosses the track(s) of (Railroad), DOT No. (XXX XXX X) in (Municipality), (Name) County all in accordance with the Federal Grade Crossing Program and the allocation of costs incident thereto.	Application Docket No		
of costs includit thereto.	(Note:		130 Program Projects)
To the Pennsylvania Public Utility Commission:			
1. The name and address of applicant are Commonwealth of Mark J. Chappell, P.E., Chief, Right-of-Way and Utilities 3362.	•	_	
OR			
1. The name and address of applicant are			, P.E., Assistant District
2. The name and address of attorney for the applicant are Wil of Pennsylvania, Department of Transportation, Office of 17105-8212.			
3. The applicant is an agency of Commonwealth of Pe Administrative Code of 1929, 71 P.S. § 511, et. seq. and ge			
OR			
3. The applicant is an agency of Commonwealth of Pe Administrative Code of 1929, 71 P.S. § 511, et. seq. and ge Application on behalf of <u>local government</u> as evidenced by	enerally 36 l	P.S. § 670	- 401 et. seq., filing this
OR			
3. The applicant is an agency of Commonwealth of Per Administrative Code of 1929, 71 P.S. § 511, et. seq. and get Application on its behalf and on behalf of <u>local government</u> hereto.	enerally 36 l	P.S. § 670	- 401 et. seq., filing this
4. It is desirable to <u>(provide description of proposed impro</u>	ovements, al	terations, a	abolition)
			·

those served, the applicant requests that the following a	also receive service of all documents in this matter:
P.E., Chief	
Utilities and Right of Way Section	Office of Chief Counsel
Pennsylvania Department of Transportation	Pennsylvania Department of Transportation
P.O. Box 3362	P.O. Box 3265
Harrisburg, PA 17105-3362	Harrisburg, PA 17105-3265
6. SR crosses, a indicated. The ADT for SR is	at Segmen
, Offset a	and said crossing should be as
indicated. The ADT for SR is	vehicles with% trucks.
7. The estimated total cost for the	is The funding for
7. The estimated total cost for the the project will be % Federal Funds and	% State Funds.
(improvement, alteration, abolition) Wherefore, applicant respectfully requests that the Publ	lic Utility Commission to approves this application
	Respectfully Submitted:
	(name) , P.E., Chief Right-of-Way and Utilities Section Department of Transportation OR

5. The names and addresses of the persons, parties and entities concerned in, or affected by the proposed construction, to the best of the applicant's knowledge, are shown in the certificate of service. In addition to

Application of the Department of Trans the Commonwealth of Pennsylvania for		Application Docket No.		
(alter/change/modify) the public (at grade/below grade) crossing by the inst description of work) where (insert road the track(s) of (Railroad), DOT No. (XX) (Municipality), (Name) County all in act the Federal Grade Crossing Program a	callation of (insert name) crosses XX XXX X) in ccordance with			
of costs incident thereto.			Bold and Italicized type to be used only for 130 Program Projects)	
	VERIFICATION			
I,	, hereby state that the fa	acts ab	ove set forth are true and correct to	
the best of my knowledge, information a	and belief and that I expect	to be a	ble to prove the same at a hearing	
held in this matter. I understand that the	e statements herein are mad	de sub	ject to the penalties of 18 Pa.C.S.	
§4904 (relating to unsworn falsification	to authorities).			
Date:	Grade Crossing Engine	eer	, P.E.	
	OR			
	(name)		,	
	Grade Crossing Admir	nistrato	or	

Application		
Docket No.		

(Note: Bold and Italicized type to be used

only for 130 Program Projects)

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing document upon the participants listed below, in accordance with the requirements of 52 Pa. Code §1.54, by first class mail, postage prepaid:

Mr	, County C	, Chairman Commissioners		
Ms	, Townshij	, Chairwoman p Supervisors		
Mr		(Utilities)		
		(Utilities) 		
	Day of		Name	

(Should be the date the application is actually inserted into the envelopes.) (Should be the name of the person actually inserting application into the envelopes.)

PUC Application Captions and Paragraphs 4, 6, & 7 for various types of projects

Warning Devices

Application of the Department of Transportation of the Commonwealth of Pennsylvania for the approval to alter the public at-grade crossing by the installation of new warning devices where SR 1035 (North Broad Street) crosses a single track of the Norfolk Southern Railway Company (DOT No. 266 237 K) in East Bangor Borough, Northampton County *all in accordance with the Federal Grade Crossing Program* and the allocation of costs thereto.

Application	
Docket No.	

- 4. It is desirable to alter the subject crossing by the installation of new automatically operated flashing railroad warning signals and new circuitry. For location map see Exhibit "A" attached.
- 6. SR 1035 (North Broad Street), Section NBS, crosses at-grade the single track of Norfolk Southern Railway Company and said crossing should be altered as indicated. The crossing is located at Segment 0060, Offset 0000. The ADT for SR 1035 is 1290 vehicles with 10% trucks.
- 7. The Department agrees to reimburse Norfolk Southern Railway Company for its actual design and construction costs with 100% Federal Funds. The estimated construction cost of the new warning devices is \$111,000.

C - 6

Warning Devices with Gates

Application of the Department of Transportation for the Commonwealth of Pennsylvania for the approval to alter the public at-grade crossing by the installation of new flashing lights with gates where Third Street crosses two tracks of Norfolk Southern Railway Company (DOT No. 592 404 D) in the Borough of Emmaus, Lehigh County all in accordance with the Federal Grade Crossing Program and the allocation of costs incident thereto.

Application	
Docket No.	

- 4. It is desirable to alter the subject crossing by the installation of new automatically operated flashing railroad warning signals with short arm gates and new circuitry. For location map see Exhibit "B" attached.
- 6. Third Street, Section 3RD, crosses at-grade two tracks of Norfolk Southern Railway Company and said crossing should be altered as indicated. The ADT for Third Street is 1140 for vehicles with 3% trucks.
- 7. Norfolk Southern agrees to cover 100% of the actual design costs. The estimated cost for construction of the new flashing lights with short arm gates is \$125,000. The funding for the construction of the project will be 100% Federal Funds.

High-Type Surface

Application of the Department of Transportation of the Commonwealth of Pennsylvania for the approval to alter the at-grade crossing by the installation of high-type surfaces where Tenth Street crosses two tracks of the Norfolk Southern Railway Company (DOT No. 592 199 A) in Lemoyne Borough, Cumberland County *all in accordance with the Federal Grade Crossing Program* and the allocation of costs incident thereto.

Application	
Docket No.	

- 4. In as much as Norfolk Southern Railway Company will perform routine maintenance at the crossing, it is desirable to install a high-type concrete surface on each track. Preliminary Plans attached.
- 6. Tenth Street Crosses at-grade two tracks of the Norfolk Southern Railway Company in Lemoyne Borough and said crossing should be altered at indicated. The ADT for 10th Street is 7,700 vehicles with 6% trucks.
- 7. The Department agrees to reimburse Norfolk Southern Railway Company for the actual cost of the concrete panels up to an aggregate total of \$15,000 for the project. The costs for the concrete panels will be funded with 100% Federal Funds.

Warning Devices and High-Type Surface

Application of the Depart of Transportation of the Commonwealth of Pennsylvania for the approval to alter the public at-grade crossing by: (1) replacing the existing warning devices and (2) installing a new high-type surface where Schoenersville Road crosses a single track of Norfolk Southern Railway Company (DOT No. 851 862 H) in the City of Bethlehem, Northampton County and the allocation of costs thereto.

- 4. It is desirable to alter the subject crossing by: (1) installing new automatic operated flashing railroad warning signals and new circuitry to replace the antiquated warning system and (2) the installing a new high-type concrete surface. For location map see Exhibit "B" attached.
- 6. Schoenersville Road, Section PNT, Crosses at-grade one track of Norfolk Southern Railway Company and said crossing should be altered as indicated. The ADT for Schonersville Road is approximately 14,560 vehicles with 5% trucks.
- 7. City of Bethlehem agrees to bear the actual design costs up to a maximum of \$6,500. The railroad agrees to pay for any design costs over \$6,500. The City of Bethlehem will enter into a reimbursement agreement with the Pennsylvania Department of Transportation for reimbursement of 95% of the design and construction costs paid to Norfolk Southern Railway Company for Schoenersville Road crossing improvements with 80% Federal Funds and 15% State Funds. City of Bethlehem agrees to bear the remaining 5% of the design and construction costs incurred by the railroad.

Warning Devices, High-Type Surface, and Track Removal

Application of the Department of Transportation of the Commonwealth of Pennsylvania for approval to alter the public at-grade crossing by: (1) the installation of new warning devices and gates (2) installation of a new high-type crossing surface and (3) the removal of Three siding tracks, where SR 0183 (Pottsville Street) crosses a single mainline track and three siding tracks of Reading, Blue Mountain, and Northern Railroad Company (DOT No. 592 518 R) in North Manheim Township, Schuykill County *all in accordance with the Federal Grade Crossing Program* and the allocation of costs incident thereto.

Application	
Docket No.	
	•

- 4. It is desirable to alter the subject crossing by; (1) replacing the antiquated automatically operated flashing railroad warning signals, gates, and circuitry; (2) installing a new high-type concrete surface; and (3) removing three siding tracks. For location map see Exhibit "A" attached.
- 6. SR 0183, (Pottsville Street) Section 01X, crosses, at-grade, the single mainline track and three siding tracks of Reading, Blue Mountain and Northern Railroad Company at Segment 0220, Offset 0324 and the said crossing should be altered as indicated. For location map see Exhibit "A" attached.
- 7. The Department agrees to reimburse Reading, Blue Mountain and Northern Railroad Company for its actual design costs up to a maximum of \$6,500 with 100% State Funds. The estimated cost for the warning devices is approximately \$110,000, which will be paid with 100% Federal Funds. The Railroad agrees to bear 100% of the costs for installation of the new high-type concrete surface. The Department agrees to pay for the removal of the three siding tracks with 100% State Funds. The track removal will be part of a Department's paving contract for SR 0183.

Highway Widening

Application of the Department of Transportation of the Commonwealth of Pennsylvania for the approval to alter the public at-grade crossing by widening the highway where SR 3002 (West Main Street), Section 000, crosses a single track of Buffalo and Pittsburgh Railroad, Inc. (DOT No. 148 642 B) in Ridgway Borough, Elk County; and the allocation of cost incident thereto.

Application	
Docket No.	

- 4. It is desirable to alter the subject crossing by widening the highway. It will be necessary for the railroad to relocate a flashing light signal mast.
- 6. SR 3002 (West Main Street), Section 000, crosses, at-grade, a single track of Buffalo and Pittsburgh Railroad, Inc. and said crossing should be altered as indicated. The subject crossing is located at Segment 0270, Offset 1713. The ADT is 3,549 for vehicles with 9% trucks.
- 7. The total cost for the widening work at the subject crossing is approximately \$3,000. The funding for the construction of the project will be 100% State Funds.

Highway Lowering

Application of the Department of Transportation of the Commonwealth of Pennsylvania for the approval to alter the crossing by lowering the roadway where SR 4003, Section 006, (Longnecker Road) crosses under two track of National Railroad Passenger Corporation (AMTRAK) (DOT No. 518 011 X) M.P. 79.52 in Mt. Joy Borough Lancaster County and the allocation of costs incident thereto.

Application	
Docket No.	

- 4. It is desirable to lower the roadway under the subject bridge by approximately 3.5' to provide a 14.5' vertical clearance. This crossing project is being done in conjunction with the project at T-344/Newcomer Road.
- 6. SR 4003 (Longnecker Road) crosses under two tracks of AMTRAK in Mt. Joy Borough and said crossing should be altered as indicated. The current ADT for SR 4003 is 1,434 vehicles with 13% trucks. The ADT for the year 2022 is projects to be 2,131 vehicles with 13% trucks.
- 7. The total estimated cost for this project is approximately \$35,000.00. The funding will be provided with 80% Federal Funds and 20% State Funds.

Application of the Department of Transportation of the Commonwealth of Pennsylvania for the approval to replace the existing at-grade crossing with a new relocated bridge where T-347 (Eby Chiques Road), crosses two existing tracks and one new proposed track of National Railroad Passenger Corporation (AMTRAK) (DOT No. 518 009 W) M.P. 77.75 in Rapho Township, Lancaster County and the allocation of costs incident thereto.

Application	
Docket No.	

- 4. It is desirable to abolish the existing public at-grade crossing where T-347 (previously T-364) (Eby Chiques Road) presently crosses two main line tracks of AMTRAK and to construct turn-around areas on each highway approach to the existing crossing. A new overhead bridge will replace the existing at-grade crossing approximately 500 feet to the east. The new bridge will cross over two mainline tracks and one proposed new siding track. The horizontal and vertical clearances will exceed the Commission's minimum clearance. See Preliminary Plans attached as Exhibit "B".
- 6. T-347 (Eby Chiques Road) (previously T-364) crosses at-grade two main line tracks and a proposed track of AMTRAK in Rapho Township and should be altered as indicated. The ADT for year 2002 is 1,434 with 13% trucks and the ADT for year 2022 is projected to be 2,131 vehicles with 13% trucks.
- 7. The total estimated cost for the entire project is approximately \$4,700,000. The funding will be provided with 80% Federal Funds and 20% State Funds.

Application of the Department of Transportation of the Commonwealth of Pennsylvania for the approval to replace the existing overhead bridge where SR 0072, Section 006 (Fruitville Pike) crosses over the tracks of National Railroad Passenger Corporation (AMTRAK) (DOT No. 518 172 T) in the City of Lancaster and Manheim Township, Lancaster County and the allocation of costs incident thereto.

Application	
Docket No.	

- 4. It is desirable to replace the existing two-span bridge which carries SR 0072, Section 006, over five shared electrified passenger/freight tracks and two non-electrified yard tracks with a new two-span bridge that achieves AMTRAK's current clearance requirements. The existing bridge width between curbs was 30 feet. That will be widened to 52 feet between curb faces on the new bridge. The new deck slab will accommodate four traffic lanes, two bike lanes, and a sidewalk on the new Adjacent Concrete Box Beams. A pedestrian fence will be installed on the exterior of the sidewalk. For Preliminary Plans, see Exhibit "A" included.
- 6. SR 0072 (Fruitville Pike) crosses over seven tracks of AMTRAK and said crossing should be altered as indicated. The ADT for SR 0072 is 19,272 vehicles with 4% trucks. The crossing is located at Segment 0900 and Offset 0611 (Station 64+78).
- 7. The total cost of the new bridge is approximately \$2.5 million.

Application of the Department of Transportation of the Commonwealth of Pennsylvania for approval to replace the existing dual bridges were SR 0080, Section B14 crosses over a single track of R.J. Corman Railroad Company/Pennsylvania Lines, Inc. (DOT No. 528 122 S) in Bradford Township, Clearfield County and the allocation of costs incident thereto.

Application	
Docket No.	

- 4. It is desirable to replace the existing dual bridges where SR 0800 Eastbound and Westbound crosses over a single track of R.J. Corman Railroad Company/Pennsylvania Lines, Inc. with new P/S Concrete I-Beam Bridges. See Preliminary Plans attached as Exhibit "A".
- 6. The subject crossing consisting of dual structures should be altered as indicated. The ADT for year 2002 is 34,046 with 36% trucks and the ADT for year 2022 is projected to be 53,651 with 36% trucks. The subject crossing is located at Station 25+42.11 for the Eastbound Roadway and Station 25+91.19 for the Westbound Roadway.
- 7. The estimated cost to replace the existing dual structures is \$2,000,000. The project will be funded with 80% Federal Funds and 20% State Funds.

Application for the Department of Transportation of the Commonwealth of Pennsylvania for approval to construct a new railroad bridge where SR 0019, Section A21 crosses under two tracks of Consolidated Rail Corporation in the City of Pittsburgh, Allegheny County and the allocation of costs incident thereto.

Application	
Docket No.	

- 4. It is desirable to construct a new railroad bridge which will span over future lanes of S.R. 0019 which will be built under the West End Improvement Project. The goal of the West End Improvement Project is to relieve traffic congestion in the West End Circle and the West End Bridge. The improvement project will provide a four (4) lane arterial cartway through the existing embankment which support Conrail's tracks requiring a new underpass structure. Preliminary Planes consisting of 17 sheets are attached as Exhibit "A".
- 6. That SR 0019 crosses below two tracks of Consolidated Rail Corporation at approximately Station 34+10. The ADT for SR 0019 for the year 201 is estimated to be 28,800 vehicles and for the year 2021 is estimated to be 35,400 vehicles with 10% trucks.
- 7. The estimated total cost for the required work is approximately \$4,200,000. The funding for the project will be 80% Federal Funds and 20% State Funds for construction.

Replace Superstructure

Application of the Department of Transportation
of the Commonwealth of Pennsylvania for
approval to replace the superstructure of the
existing viaduct of CSX Transportation, Inc. in
the City of Johnstown, Cambria County and the
allocation of costs incident thereto.

Application	
Docket No.	

- 4. It is desirable to replace the entire superstructure of the existing bridge carrying SR 0056, Section 012, over three tracks of CSX Transportation, Inc. in the City of Johnstown. Attached as Exhibit A are selected sheets of the preliminary R/W Drawings.
- 6. The subject bridge is located on S.R. 0056, from Station 249+00 to Station 6+00 (Equation-Station 276+37.33 back = Station 2+81.85 Ahead) for a length of 3055.48 feet. The subject crossing is located at approximately Station 255+50. The current ADT is 14,100 vehicles with 4% trucks. The 2020 ADT is anticipated to be 21,000 vehicles and 4% trucks. The existing horizontal clearance (13'-16") will be maintained. The existing vertical clearance (22'-9") will be maintained of increased slightly. The CSX railroad traffic is classified as Class Freight with an operating speed of 25 mph. Volume is two freight trains per day.
- 7. This project is funded as Federal Aid Primary Project and uses Federal and State Highway Funds. Design is being done with 100% State Funds. The estimated construction cost is \$15,900,000. The road is classified as an Urban Arterial.

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Application of the Department of Transportation of the Commonwealth of Pennsylvania for approval to abolish the public at-grade crossing where SR 2026 crosses a single track of Eat Broad Top Railroad and Coal Company (DOT No. 506 481 K) in Mount Union Borough, Huntingdon County and the allocation of costs incident thereto.

Application	
Docket No.	

- 4. It is desirable to abolish the subject crossing by removing the railroad facilities from the highway right-of-way and repaying the highway. See concurrence by Railroad attached as Exhibit "A".
- 6. SR 2026 crosses, at-grade, a single track of Eat Broad Top Railroad and Coal Company at Segment 0010, Offset 2292, and said crossing should be abolished as indicated. The ADT for SR 2026 is 5,296 vehicles with 9% trucks.
- 7. The estimated total cost for the removal of the subject crossing is \$6,500. The project will be funded with 100% State Funds.

Abolitions

Application of the Department of Transportation of the Commonwealth of Pennsylvania for the approval to abolish the public at-grade crossing where T-533 (Irishtown Road) crosses two tracks of National Railroad Passenger Corporation (AMTRAK) (DOT No. 518 155 C) M.P. 5922 in Leacock Township, Lancaster County and the allocation of costs incident thereto.

Application	
Docket No.	

- 4. It is desirable to abolish the subject crossing and to construct new parallel roads on each side of the railroad tracks. On the north side of the railroad, T-692 (Harvest Road) will be extended westward to intersect with T-533 (Irishtown Road). On the south side of the railroad T-798 (North Cherry Lane) will be extended northward and then eastward to intersect with T-533 (Irishtown Road). See Preliminary Plan attached as Exhibit "B".
- 6. T-533 (Irishtown Road) crosses at-grade two tracks of AMTRAK in Leacock Township and said crossing should be abolished as indicated. The current ADT for T-533 340 vehicles with 1% trucks.
- 7. The total estimated cost for this project is approximately \$20,000.00. The funding will be provided with 80% Federal Funds and 20% State Funds.

Abolitions

Application of the Department of Transportation of the Commonwealth of Pennsylvania to abolish and remove: (1) the bridge where SR 0119 crosses under a track of CSX Transportation, Inc. (formerly Buffalo, Rochester & Pittsburgh Railway Company) (DOT No. 148 870 N) and (2) the railroad through truss northwest of the SR 0119 crossing in Burrell Township, Indiana County and the allocation of costs incident thereto.

Application	
Docket No.	

- 4. In is desirable to abolish and remove: (1) the undergrade bridge where SR 0119 crosses beneath a single track of CSX Transportation, Inc. (formerly Buffalo, Rochester & Pittsburgh Railway Company) crosses over and abandoned rail line, RR Bridge No. L-4369. The reason for removing the underpass bridge is that SR 0119 is being widened from 42'-0" (two traffic lanes) to 82.70' (four traffic lanes). The reason for removing the railroad through truss is to avoid expensive retaining walls. See Location map Exhibit "A" and Exhibit "B" consisting of 4 sheets attached hereto.
- 6. The undergrade crossing is located on S.R. 0119 at Station 115+451 (Segment 0800, Offset 2260) and the other crossing is located northwest of the undergrade crossing. The current ADT is 10,700 vehicles for SR 0119 and the 2020 ADT is anticipated to be 15,000 vehicles.
- 7. The subject project is funded with 80% Federal Funds and 20% State Funds and is estimated to cost approximately \$325,000.

Exempt Signs

Application of the Department of Transportation of the Commonwealth of Pennsylvania for approval to alter two public at-grade crossings by the installation of "Exempt" signs where SR 3035 (Fairground Road) and T-504 (Pennsylvania Avenue) (DOT No. 507 887 J) crosses a single track operated by Norfolk Southern Railway Company in Smithfield Township, Huntingdon County and the allocation of costs incident thereto.

Application	
Docket No.	

- 4. It is desirable to alter the subject crossings by installing a sign reading "Exempt" on each highway approach in accordance with Act 151 which indicates an industrial or spur line railroad grade crossing may be marked with a sign reading "Exempt". Both of these crossings are used by school buses. For project location, see maps attached as Exhibit "A".
- 6. SR 3035 and T-504, which are rural major collector's, cross at-grade a single track of Norfolk Southern Railway Company at Segment 0070, Offset 0427 for SR 3035, and said crossings should altered as indicated. The ADT for SR 3035 is 10,164 vehicles with 7% trucks. The ADT for T-504 is 6,120 vehicles with 0% trucks.

To the best of the Department's knowledge, this spur track has not been used for many years except for a one tie movement to transport a deactivated nuclear reactor from the former nuclear plant in Saxon approximately three years ago.

7. The estimated total cost for the installation of "Exempt" signs is approximately \$500 for each crossing.

Drainage Pipe

Application of the Department of Transportation of the Commonwealth of Pennsylvania for approval to alter the crossing by paving the approach roadways and installing roadway drainage facilities beneath the tracks where SR 1033 (Somerset Avenue) crosses a single track operated on by Norfolk Southern Railway Company and owned by Pennsylvania Line, LLC (DOT No. 529 146 J) in Windber Borough, Somerset County and the allocation of costs thereto.

Application	
Docket No.	

- 4. It is desirable to repave the approach roadways and install roadway drainage beneath the tracks at the subject crossing. A location map is enclosed as Exhibit "A".
- 6. SR 1033 (Somerset Avenue) crosses at-grade a single track operated on by Norfolk Southern Railway Company and owned by Pennsylvania Lines, LLC and said crossing should be altered as indicated. The ADT for SR 1033 at this location is 4,166 vehicles with 5% trucks.
- 7. This project is funded by the Hazard Elimination Program (STP). The construction for the portion of the project involving the subject crossing is approximately \$9,000.00. The funding will be provided with 90% Federal Funds and 10% State Funds.

APPENDIX D

STANDARD OPERATING PROCEDURES, FLOW CHARTS AND TRACKING CHARTS

- **1. Standard Operating Procedures (SOPs).** Appendix D presents PennDOT's Standard Operating Procedures (SOPs) for the design and construction of the following two types of highway-railroad crossings:
 - 1. Safety Project
 - 2. Highway-Bridge Project

These SOPs identify the "WHAT", "HOW", "WHO", and "WHEN" of advancing the design of a crossing improvement project from Engineering and Environmental (E&E) Scoping to construction.

These procedures are intended to provide "hands-on, step-by-step" instructions to individuals responsible for performing grade crossing designs. All required actions are organized in a logical sequence of tasks and subtasks and presented in a tabular form for quick reference. The Quality Control/Quality Assurance (QC/QA) steps to be performed for each task are identified, and references to detailed explanations are included.

This procedure is also intended to provide guidance to design project managers and other individuals responsible for overseeing design development.

- 2. Chapter 3 Process Overview.
- 3. Chapter 3 Process Flow Chart.
- 4. Chapter 4 Process Overview.
- 5. Chapter 4 Flow Charts.
- 6. Section 130 Project Tracking Chart.
- 7. Highway/Bridge Projects Tracking Chart
- 8. Invoice Tracker.
- 9. Railroad Certification Process for
 - a. Projects with Railroad Involvement
 - b. Projects without Railroad Involvement

STANDARD OPERATING PROCEDURE FOR GRADE CROSSING General Information / Instruction Sheet

1. Standard Operating Procedures (S.O.P.) are organized into a logical step-by-step process and presented in the following tables to provide the following basic information about the procedures for a safety project or bridge project:

Tasks, Subtasks, Quality Control "WHAT"
Work Instructions "HOW"
Minimum Qualification Level "WHO"
Coordination "WHEN"

- **2.** The S.O.P. line items are intended to accommodate two (2) types of processes Safety Projects and Highway and/or Bridge Projects. All of the procedures will not be utilized every time. The tables must be reviewed carefully throughout the project and "tailored" to fit individual needs by deleting line items that do not specifically apply.
- **3. Phases, Tasks, Subtasks, Quality Control.** PennDOT's two (2) Grade Crossing S.O.P.s consist of a series of Phases (Programming, Grade Crossing Design, Construction, etc.), which are designated as, A, B, C, D, and E for Safety Projects, and A, B, C, D, and E for Highway and/or Bridge Projects. Each Phase consists of a series of Tasks (A.1, B.1, etc.), and each Task is further subdivided into a series of Subtasks (A.1.1, A.1.2, etc). Its completion is the responsibility of the District Grade Crossing Engineer/Administrator (DGCE/A). These <u>key QC</u> steps will supplement the quality procedures contained in the Work Instruction documents, checklists, and QC/QA Manuals.
- **4. Work Instructions.** This field provides references to specific sources that will guide the User in performing a particular Task or Subtask. Many locations make reference to specific sections in Design Manual Part 1A (DM-1A), its appendices, and Publication 371 (Grade Crossing Manual). Pub. 371 provides detailed flow charts.
- **5.** Coordination, Remarks/Additional Information. These fields provide supplemental information, exceptions, and cautionary notes regarding relative timing for specific line items.

X.#		TASK		HODE HIGHNIGHTON	MINIMUM		
X.#.:	#	SUBTASK	WHEN	WORK INSTRUCTION(S) (REFER TO:)	INDEPENDENT	REMARK(S)	
X.#.:	#	QUALITY CONTROL		(REFER 10.)	RESPONSIBILITY		
A		Programming					
A.1		Determine Project need.	Annual	Publication 371, Grade Crossing Manual	DGCE/A QL-2	As needed.	
A.1.1		Obtain Railroad Project cost estimate and concurrence.		Publication 352, Estimating Manual	DGCE/A QL-2		
A.1.2		Identify funding source.		Program Center	District Programming Engineer		
A.1.3	*	If on local highway, request Resolution from local government.		Publication 371, Grade Crossing Manual	DGCE/A QL-2		
A.2		Submit Project list to District Programming Engineer.		Publication 371, Grade Crossing Manual	District Programming Engineer		
A.2.1	★	Submit the District's project list and MPMS information to the DPE for processing			DGCE/A; Program Center / Dist. Programming Engineer		
В		Grade Crossing Design					
B.1	*	Obtain Environmental/Right-of-Way Clearance			District Environmental Manager/District Right-of- Way Manager	See environmental clearance SOPs	
B.2	*	Form D-4232 (Federal funds for construction) approved		D-4232 Manual	DGCE/A QL-2 Dist. Programming Engineer	100% Federal Dollars Construction.	
B.3	*	Authorize Preliminary Engineering State Routes/ Local Roads		Publication 371, Grade Crossing Manual	DGCE/A QL-2 District Executive ADE-Design	If local road, need authorization from local entity to act on their behalf and issue appropriate notices.	
B.3.1		Secure permits & agreements		Publication 371, Grade Crossing Manual	DGCE/A QL-2	As required.	
B.3.2	*	If RR elects to use design consultant, verify consultant is approved by BOPD/District		Publication 371, Grade Crossing Manual	DGCE/A QL-2		
B.4		Conduct Field View with RR		Publication 371, Grade Crossing Manual Safety Checklist	DGCE/A QL-2	PUC should be Invited.	
B.4.1		Develop Situation Plan		Publication 371, Grade Crossing Manual	DGCE/A QL-2 with RR Rep.	Refer to MUTCD.	
B.5		Prepare data for PUC Application and assemble required plans		Publication 371, Grade Crossing Manual	DGCE/A QL-1		
B.5.1		Identify affected utilities					
B.6	•	Prepare PUC Application. Identify any Clearance Exceptions		Publication 371, Grade Crossing Manual	DGCE/A QL-2 (if certified)	CO GCU, if District is not authorized. See Grade Crossing Manua Chapter 1.03 D.	
B.6.1	*	Filing and Routing of PUC application		Publication 371, Grade Crossing Manual	DGCE/A QL-2 (if certified)	CO GCU, if District is not authorized. See Grade Crossing Manua Chapter 1.03 D.	
B.7	*	Attend PUC conducted field Conference (DFV-Diagnostic Field View)		Publication 371, Grade Crossing Manual	DGCE/A QL-2	All necessary personnel	
B.8	*	Receive PUC approval Secretarial Letter/Order.		Publication 371, Grade Crossing Manual	DGCE/A QL-2		
B.9	*	Prepare Project Agreement and submit to RR		Publication 371, Grade Crossing Manual	DGCE/A QL-2		
B.9.1	A	Obtain signatures of appropriate parties on Project agreement enter into LATS		Publication 371, Grade Crossing Manual	DGCE/A QL-2	As required	
B.9.2		Submit SAP-7		Publication 371, Grade Crossing Manual	DGCE/A QL-2	Design & construction phases	

	STANDARD OPERATING PROCEDURE: GRADE CROSSING – SAFETY PROJECT						
X.#		TASK			MINIMUM		
X.#.	#	SUBTASK	WHEN	WORK INSTRUCTION(S) (REFER TO:)	INDEPENDENT	REMARK(S)	
X.#.	#	QUALITY CONTROL		(REFER 10.)	RESPONSIBILITY		
B.10		Issue NTP-Design					
B.11	*	Obtain situation and detailed circuit drawings and detailed cost estimate from RR		Publication 371, Grade Crossing Manual	DGCE/A QL-2		
B.12	*	Obtain Detour / Maintenance and Protection of Traffic Plan		Publication 371, Grade Crossing Manual	DGCE/A QL-2	Plan prepared by RR or District	
B.12.1	*	Approve Maintenance and Protection of Traffic Plan		Publication 371, Grade Crossing Manual	District Traffic Unit	See Traffic Control Plan SOP	
B.13	*	Submit applicable plans to PUC for approval		Publication 371, Grade Crossing Manual	DGCE/A QL-2	Plans: Situation Circuit Cost estimate	
B.13.1	*	Receive PUC approval of Plans			DGCE/A QL-2		
B.14	*	Reimburse RR for design (State Highway Projects); Actual costs not exceeding \$6,500.00		Publication 371, Grade Crossing Manual		Milestone (▲) is applicable to final bill. RR concurrence required for costs exceeding \$6,500.00.	
C		Bidding					
C.1		Review the RR's proposal					
C.1.1		If RR elects to use continuing contract for construction, verify contractor is approved by BOPD/District					
C.1.2	*	RR solicits bids		Publication 371, Grade Crossing Manual	RR	If construction not by RR forces.	
C.1.3	*	Obtain RR's recommendation of lowest acceptable bidder		Publication 371, Grade Crossing Manual	DGCE/A QL-2	If RR lets contract.	
C.1.4	*	Approve lowest Bidder		Publication 371, Grade Crossing Manual	Division Chief ADE-Design	CO GCU, if District is not Authorized. See Grade Crossing Manual Chapter 1.03 D	
D		Construction					
D.1	*	Issue Construction Notice to Proceed to Railroad – State and local roads (notification of program center)		Publication 371, Grade Crossing Manual	Division Chief ADE-Design	For construction by railroad forces; or if to be let, follow approved bidding procedures to select a Contractor. Verify D-4232 and Project agreement are approved.	
D.2	*	Notify District Press Office and District hauling permits office of Project and Schedule			DGCE/A QL-1		
D.3	*	Verify that RR places advance notice signs (Projects with Detours)			District Traffic Engineer QL-2 DGCE/A QL-2	Signing should be reviewed by inspector DGCE/A or traffic unit.	
D.4		Hold Pre-construction meeting at crossing		Publication 371, Grade Crossing Manual	QL-2	Refer to PennDOT Publication "Guidelines for Design and Installation of Railroad Crossing Surfaces and Automatic Warning Devices."	
D.5	*	Inspect Project Construction		Publication 371, Grade Crossing Manual	DGCE/A QL-2	Minimum 30% of a Project. Verify Buy America and BABA compliance.	
D.5.1		Review and payment of invoices	Ongoing within 2 weeks of receipt.		DGCE/A QL-2	Ensure Buy America and BABA Certifications received.	

	STANDARD OPERATING PROCEDURE: GRADE CROSSING – SAFETY PROJECT							
X.# TASK X.#.# SUBTASK X.#.# QUALITY CONTROL		WHEN	WORK INSTRUCTION(S) (REFER TO:)	MINIMUM INDEPENDENT RESPONSIBILITY	REMARK(S)			
D.6	*	Notify PUC that construction is complete		Publication 371, Grade Crossing Manual	DGCE/A QL-1			
D.7	*	Attend Final Inspection by PUC		Publication 371, Grade Crossing Manual	DGCE/A QL-2			
D.8	*	Prepare close out certificate.	Concurrent with final bill.	Publication 352, Estimating Manual	DGCE/A QL-1			
D.9	*	Approve and distribute close out certification.			Chief, RWUS ADE-Design	CO GCU filed Application. District filed application.		
E.1		Update inventory (FRA, PennDOT, BMS)						

Abbreviations

ADE Assistant District Executive BOPD Bureau of Project Delivery

CO GCU Central Office Grade Crossing Unit

DGCE/A District Grade Crossing Engineer/Administrator

GCM Grade Crossing Manual

MUTCD Manual of Uniform Traffic Control Devices

PUC Public Utility Commission

RR Railroad

RWUS Right-of-Way and Utilities Section

★ Mandatory Activity; Must be completed before proceeding ahead. DGCE/A responsible for completion of QC items in QC matrix for all Projects

▲ Milestone Date; C.O. QA team responsible for QA matrix completion on all Projects.

Note(s)

[1] TASKS and SUBTASKS should be performed in the basic order listed. Any special requirements regarding timing are indicated in the "WHEN" column.

Qualification Levels

District Grade Crossing Engineer/Administrator certification to prepare PUC applications. Project Manager trained to perform routine design management / coordination tasks.

Expertise Code (GX)

The following is a summary of the minimum Grade Crossing expertise an individual is expected to possess to qualify for Expertise Code (GX).

- Ability to read deeds, plats, plans and specifications.
- Ability to prepare cost estimates.
- Ability to advance minor Projects from beginning to end with little to no direct supervision.
- Good communication skills (reading, writing, listening and speaking English)
- Good coordination skills (ability to work simultaneously with multiple parties in resolving issues).
- General knowledge of PennDOT's highway Project development process.
- Basic knowledge of Railroad grade crossing protection and signal systems.
- Basic knowledge of Railroad operations.
- Basic understanding of PUC operations and policies.
- Common sense understanding of permits, agreements, insurance, reimbursements, and construction staging.

STANDARD OPERATING PROCEDURE: GRADE CROSSING – SAFETY PROJECT

		ιQUALITY C	ONTROL M	ATF	RIX 1	
PROJEC	CT DATA	ı:				
S.R	,	SECTION(S):	_; COUNTY			
AAR#:_		MUNICIPALITY:	RAIL	ROAD MI	ILE POST:	
X.	#	TASK		APPLIC	CABLE?	DATE
X. #	ŧ. #	SUBTA	SK	YES	NO	COMPLETED
Α		PROGRAMMING				
A.1.1		Obtain RR Project Cost Esti	mate and concurrence			
A.1.3	_	If on a local highway, reques				
A.1.3	*	government.				
A.2.1	*	Submit the District's project				
		information to the DPE for p	<u> </u>			
В		GRADE CROSSING DESIG				
B.1	*	Environmental Clearance &	1			
B.2	*	Form D-4232 (Federal	Submitted:			
		funds for construction): Authorize preliminary Engineeri	Approved:			
B.3	*	Roads	ing State Routes/Local			
B.3.2	*	If RR elects to use design cons	ultant, verify consultant is			
D.3.2	<u> </u>	approved by BOPD.				
B.6	*	Prepare PUC Application. Ident Exceptions.	ify any Clearance			
B.6.1	*	Filing and Routing of PUC appl	ication			
B.7	*	Attend PUC conducted field con				
B.8	*	Receive PUC approval Secreta				
B.10	*	Issue NTP for Design				
B.11	*	Obtain circuit drawings and det RR				
B.12	*	Obtain Detour / Maintenance an Plan	nd Protection of Traffic			
B.12.1	*	Approve Maintenance and Prot				
B.13	*	Submit applicable plans to PUC	c for approval			
B.13.1	*	Receive PUC approval plans				
B.14	*	Reimburse RR for design (State	e Highway Projects).			
<u>C</u>	A.	BIDDING DB collecte hide				
C.1.2	*	RR solicits bids. Obtain RR's recommendation of	of lowest acceptable			
C.1.3	*	bidder.	n lowest acceptable			
C.1.4	*	Approve Lowest Bidder				
D		CONSTRUCTION				
D.1	*	Issue Construction Notice to Pr local roads	oceed to RR – State &			

STANDARD OPERATING PROCEDURE: GRADE CROSSING – SAFETY PROJECT

ıQUALITY CONTROL MATRIX ι							
PROJECT D	ATA:						
S.R	, SECTION(S):; COUNTY						
AAR#:	MUNICIPALITY:	RAILROA	D MILE PO	OST:			
X. #	TASK	APPLICABLE?		DATE			
X. #. #	#. # SUBTASK		NO	COMPLETED			
D.2 ★	Notify District Press Office of Project and Schedule						
D.3 ★	Verify that RR places advance notice signs (Projects with Detours)						
D.5 ★	Inspect Project Construction.						
	Verify RR submits Buy America and BABA material Certifications						
D.6 ★	Notify PUC that construction is complete						
D.7 ★	Attend Final Inspection by PUC.						
D.8 ★	Prepare Close out certificate.						
D.9 ★	Approve and distribute close out certification Chief, RWUS ADE-Design	-					
E.1 ★	Update Inventory						

STANDARD OPERATING PROCEDURE: GRADE CROSSING – SAFETY PROJECT

▲ QUALITY ASSURANCE MATRIX ▲

PROJECT	DATA:					
S.R	, SECTION(S):	; COUNTY_				
AAR#:	MUNICIPALITY	/ :	RAI	LROAD	MILE POST:_	
X.#	TASK		APPLIC	ABLE?	DATE	REVISIONS
X.#.#	SUBTAS	K	YES	NO	COMPLETED	REQUIRED
Α	PROGRAMMING					
A.2.1 ▲	Submit the District's project I information to the DPE for project I					
В	GRADE CROSSING DES	SIGN				
B.2 ▲	Form D-4232 (Federal	Submitted:				
<u> </u>		Approved:				
B.3 ▲	Authorize preliminary Engine Routes/Local Roads	eering State				
B.6.1 ▲	Filing and Routing of PUC a					
B.7 ▲	Attend PUC conducted field	conference.				
B.8 ▲	Receive PUC approval Secr					
B.12.1 ▲	Approve Maintenance and P Plan	rotection of Traffic				
B.13 ▲	Submit applicable plans to P	UC for approval.				
B.13.1 ▲	Receive PUC approval of pla					
B.14 ▲	Reimburse RR for design (S Projects)	tate Highway				
С	BIDDING					
C.4.1 A	Approve Lowest Bidder					
D	CONSTRUCTION					
D.1 ▲	Issue Construction Notice to — State and local roads	Proceed to Railroad				
D.6 ▲	Notify PUC that construction	•				
D.7 ▲	Attend Final Inspection by P	UC.				
D.9 🔺	Approve and distribute close out Certification	Chief, RWUS ADE-Design				

<u>;</u>	STA	ANDARD OPERATING PROC		GRADE CROSSING – ROJECT	HIGHWAY ANI	D/OR BRIDGE
X. X.# X.#	.#	TASK SUBTASK QUALITY CONTROL	WHEN	WORK INSTRUCTION(S) (REFER TO:)	MINIMUM INDEPENDENT RESPONSIBILITY	REMARK(S)
A		PROJECT DEVELOPMENT & PROGRAMMING				
A.1		Attend E&E Scoping Field View		DM-1C, Chp. 2. E&E Scoping SOP	DGCE/A QL-2	If needed
В		GRADE CROSSING DESIGN				
B.1	*	Authorize Preliminary Engineering for RR	After PMC Approval	Publication 371, Grade Crossing Manual	Dist. Exec./ ADE Design	If Federally funded, need approved D4232 containing RR Engineering line item.
B.2		Schedule meeting with RR(s), Inform BOPD, RWUS of meeting		Publication 371, Grade Crossing Manual	DGCE/A QL-1	If needed.
B.2.1	*	Submit Forms D-4279 and D-4279A to RR		Publication 371, Grade Crossing Manual	DGCE/A QL-2	Completed form D-4279A rec'd. prior to Task B.4 – no later than Task D.1.
B.2.2	*	Meet with RR, conduct field view, & obtain concurrence on horizontal & vertical clearances.			DGCE/A QL-2	Completed form D-4279 required.
B.2.3		Obtain Cost Estimate from RR			QL-2	
В.3		Prepare data for PUC Application.		Publication 371, Grade Crossing Manual	DGCE/A QL-1	
B.3.1		Assemble Required plans. Obtain RR concurrence of TS&L			DGCE/A QL-1	
B.3.2		Prepare PUC Application. Identify any Clearance Exceptions.		Publication 371, Grade Crossing Manual	DGCE/A QL-2 (if certified)	B.3, B.3.1 to CO GCU if District is not authorized. See Grade Crossing Manual Chapter 1.03 D.
B.3.3	*	File PUC application.		Publication 371, Grade Crossing Manual	DGCE/A QL-2 (if certified)	CO GCU if District is not certified See Grade Crossing Manual Chapter 1.03F.
B.4	*	Attend PUC conducted field conference.		Publication 371, Grade Crossing Manual	DGCE/A QL-2	All necessary personnel.
B.5	*	Prepare PUC Hearing Submission (if required)	4 weeks Before hearing date	Publication 371, Grade Crossing Manual	DGCE/A QL-2	Hearing Data Preparation. Contact OCC.
B.5.1	*	Attend PUC Hearing	When scheduled	Publication 371, Grade Crossing Manual	DGCE/A QL-2	Legal to determine appropriate personnel.
B.5.2	*	Review Recommended Decision			DGCE/A QL-2	
B.6	*	Obtain and forward PUC Order	As soon as received		DGCE/A QL-2	Secretarial Letter if no RR ROW appropriation by PUC.
C		FINAL CONSTRUCTION PLAN SUBMISSION PROCESS				
C.1	★	Submit construction plans to PUC for approval.		Publication 371, Grade Crossing Manual	DGCE/A QL-2	
C.1.1	* ^	Obtain and forward PUC Approval of construction plans.		Publication 371, Grade Crossing Manual	DGCE/A QL-2	
	* ^	Railroad certification compliance checklist & letter.	Prior to PS&E submission	Publication 371, Grade Crossing Manual	DGCE/A QL-2	
D		FUNDING AND CONSTRUCTION REIMBURSEMENT AGREEMENT				
D.1	*	Prepare Form D-4232 (Federal funds for construction) if required.			Project Manager QL-2	Verify completed.

STANDARD OPERATING PROCEDURE: GRADE CROSSING – HIGHWAY AND/OR BRIDGE PROJECT							
Χ.:	#.# #.#	TASK SUBTASK QUALITY CONTROL	WHEN	WORK INSTRUCTION(S) (REFER TO:)	MINIMUM INDEPENDENT RESPONSIBILITY	REMARK(S)	
D.2	*	Prepare project agreements, secure RR signatures, and submit to Legal for Execution.		Publication 371, Grade Crossing Manual	Project Manager QL- 2 DGCE/A QL-2	Use pre-approved agreements. See Chapter 7 Section 7.04	
E E.1	*	Issue Construction Notice to Proceed to Railroad – State and Locals roads		Publication 371, Grade Crossing Manual	Div. Chief / ADE- Design	If applicable to project.	
E.2		Attend Pre-construction meeting (if required)	As scheduled	Publication 371, Grade Crossing Manual	DGCE/A QL-2		
E.3		Monitor Project Construction	Ongoing	Publication 371, Grade Crossing Manual	DGCE/A QL-2		
E.4	*	Notify PUC that construction is complete	Within 2 weeks of project completion	Publication 371, Grade Crossing Manual	QL-2		
E.4.1	*	Attend Final Inspection by PUC		Publication 371, Grade Crossing Manual	DGCE/A QL-1		
E.5	*	Submit final bill to PUC (if required by PUC Order).	Within 2 weeks of receipt.	Publication 371, Grade Crossing Manual	DGCE/A QL-2		
E.6		Prepare close out certificate	Concurrent with final bill.		DGCE/A QL-2		
E.6.1	*	Approve and distribute close out certification. Update crossing inventory data in GCEDMS.			Chief, RWUS ADE-Design	CO GCU filed application. District filed application.	

Abbreviations

ADE Assistant District Executive BOPD Bureau of Project Delivery

CO GCU Central Office Grade Crossing Unit

DE District Executive

DGCE/A District Grade Crossing Engineer/Administrator

GCM Grade Crossing Manual

E&E Engineering and Environmental

E&ESFV E&E Scoping Field View

Form D-4279 RR Grade Crossing Data for Design Form D-4279A RR Grade Crossing Data for Contractor MUTCD Manual of Uniform Traffic Control Devices

PUC Public Utility Commission

ROW Right-of-Way RR Railroad

RWUS Right-of-Way and Utilities Section

★ Mandatory Activity; Must be completed before proceeding ahead. DGCE/A responsible for completion of QC items in QC matrix for all projects

▲ Milestone Date; C.O. QA team responsible for QA matrix completion on all projects.

Note(s)

[1] TASKS and SUBTASKS should be performed in the basic order listed. Any special requirements regarding timing are indicated in the "WHEN" column.

[2] If programming actions needed, refer to SOP for Safety Projects.

Qualification Levels

District Grade Crossing Engineer/Administrator certification to prepare PUC applications. Project Manager trained to perform routine design management / coordination tasks.

Expertise Code (GX)

The following is a summary of the minimum, Grade Crossing expertise an individual is expected to possess to qualify for Expertise Code (GX).

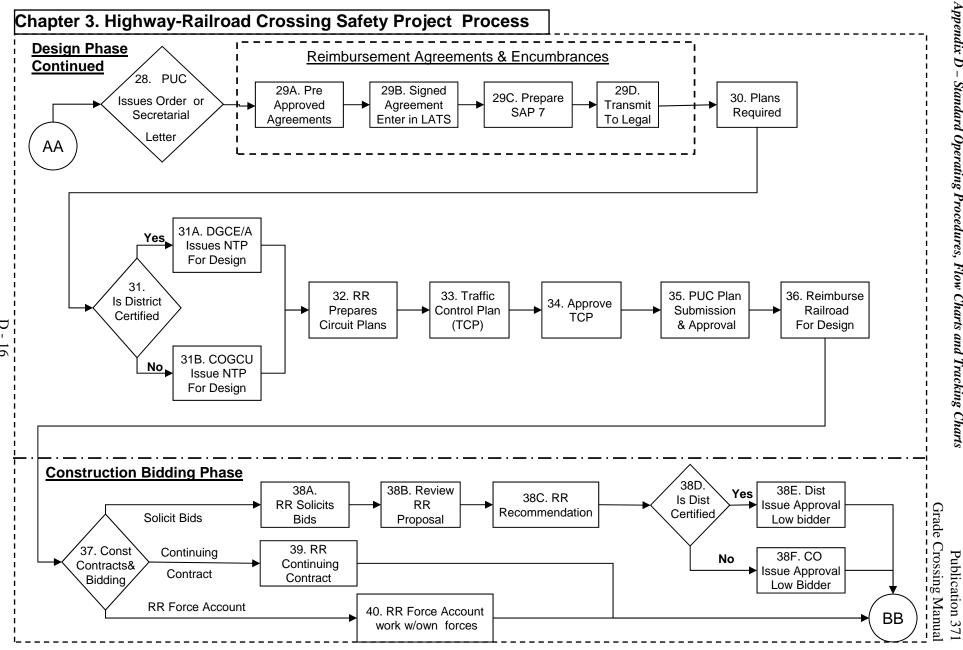
- Ability to read deeds, plats, plans and specifications.
- Ability to prepare cost estimates.
- Ability to advance minor projects from beginning to end with little to no direct supervision.
- Good communication skills (reading, writing, listening and speaking English)
- Good coordination skills (ability to work simultaneously with multiple parties in resolving issues).
- General knowledge of PennDOT's highway project development process.
- Basic knowledge of Railroad grade crossing protection and signal systems.
- Basic knowledge of Railroad operations.
- Basic understanding of PUC operations and policies.
- Common sense understanding of permits, agreements, insurance, reimbursements, and construction staging

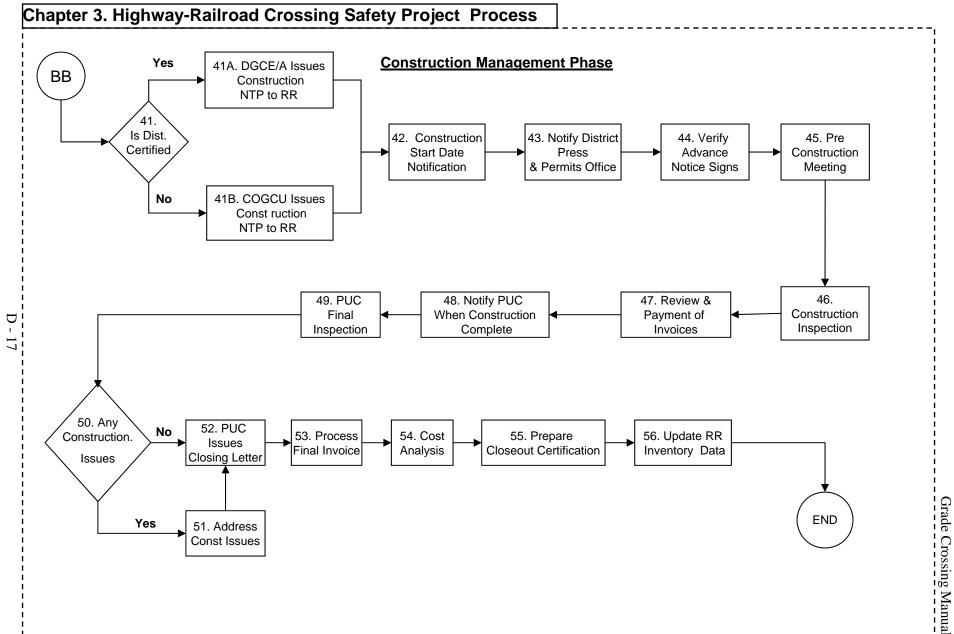
STANDARD OPERATING PROCEDURE: GRADE CROSSING – HIGHWAY AND/OR BRIDGE PROJECTS

		ι QUALITY C	ONTROL	MATR	XIX ı		
PROJE	CT DATA:						
S.R	, SE	CTION(S):	COUNTY				
AAR#:_		MUNICIPALITY: RAILROAD MILE POST:					
X. #		TA	TASK			ABLE?	DATE
X. #. #		SUB	TASK	YES	NO	COMPLETED	
В		GRADE CROSSING DESIGN			1		
B.1	*	Authorize Preliminary Enginee	ring for RR				
B.2.1	*	Submit Forms D-4279 and D-4279-A to RR					
B.2.2	*	Meet with RR, conduct field vie horizontal & vertical clearance					
B.3.2	*	Prepare PUC Application. Identify any Clearance Exceptions.					
B.3.3	*	File PUC application.					
B.4	*	Attend PUC conducted field confe					
B.5	*	Prepare PUC Hearing Submission					
B.5.1	*	Attend PUC Hearing					
B.5.2	*	Review recommended decision					
B.6	*	Obtain and forward PUC order					
С		FINAL CONSTRUCTION PLAN SUBMISSION PROCESS					
C.1	*	Submit construction plans to PUC for approval.					
C.1.1	*	Obtain and forward PUC approval	of construction plans				
C.2	*	Railroad certification compliance	Checklist				
<u> </u>		·		Letter			
D		FUNDING AND CONSTRUCTION REIMBURSEMENT AGREEMENT					
D.1	*	Prepare Form D-4232 (Fed. funds for construction) if req'd					
D.2	*	Prepare project agreements, secure RR signatures, and submit to Legal for Execution.					
E		CONSTRUCTION					
E.1	*	Issue Notice to Proceed for Construction to RR.					
E.4	*	Notify PUC that construction is complete.					
E.4.1	*	Attend Final Inspection by PUC.					
E.5	*	Submit final bill to PUC (if required by PUC Order).					
E.6	*	Prepare close out certif.					
E.6.1	*	Approve and distribute close out certification.	ut Chief, RWUS ADE-Design				
E.6.1	*	Update crossing inventory in GCEDMS					

STANDARD OPERATING PROCEDURE: GRADE CROSSING – HIGHWAY AND/OR BRIDGE PROJECTS

	▲ QUALITY ASSURA	NCE	MA	ATRIX A	\
PROJECT	DATA:				
S.R	, SECTION(S):; COUNTY				
AAR#:	MUNICIPALITY:	RAILROAD MILE POST:			
X. #	TASK	ΔΡΡΙΙΟ	CABLE?	DATE	REVISIONS
X. #. #	SUBTASK	YES		COMPLETED	REQUIRED
В	GRADE CROSSING DESIGN				
B.1 ▲	Authorize Preliminary Engineering for RR				
B.3.3 ▲	File PUC application.				
B.4 ▲	Attend PUC conducted field conference.				
B.6 ▲	Obtain and forward PUC order				
С	FINAL CONSTRUCTION PLAN SUBMISSION PROCESS				
C.1 	Submit construction plans to PUC for approval.				
C.1.1 🔺	Obtain and forward PUC approval of construction plans.				
C.2 🔺	Railroad certification compliance letter.				
E	CONSTRUCTION				
E.1 ▲	Issue Construction NTP to RR – State and Local Roads				
E.4 ▲	Notify PUC that construction is complete				
E.4.1 ▲	Attend Final Inspection by PUC.				
E.6.1 ▲	Approve and distribute close out certification.				
E61 A	Undate crossing inventory in GCEDMS			1	





Pg

Chapter 3. Highway-Railroad Crossing Safety Project Process

Determine Project Need **Start** and Selection of Safety Projects (DGCE/A)

Project Manager

1. For the highway-Railroad Crossing Safety Project Process it is assumed that the District Grade Crossing Engineer / Administrator (DGCE/A) is the Project Manager (PM).

3.04 A (A.1)

2. The CO GCU in coordination with the DGCE/A and the RR shall develop a project priority listing of Safety Projects based on project need and guidance set forth by FHWA. This will require the use of FRA's WBAPS listing. The CO GCU, the DGCE/A and RR shall determine what improvements are anticipated to be made at the crossing (Lights, gates, cantilevers, surface, safety upgrades, or a combination thereof). This initial step may require a field view with the railroad to discuss proposed improvements.

Identify Projects to Follow Simplified **Procedures**

3.04 A (A.1)

3. Upon completion of project priority listing the CO GCU in coordination with the DGCE/A and RR shall identify projects that will use the simplified procedure as outlined in 23 CFR 646.218.

Concurrence & Project Cost Estimate from RR (DGCE/A, RR & DPE)

3.04 A1 (A.1.1)

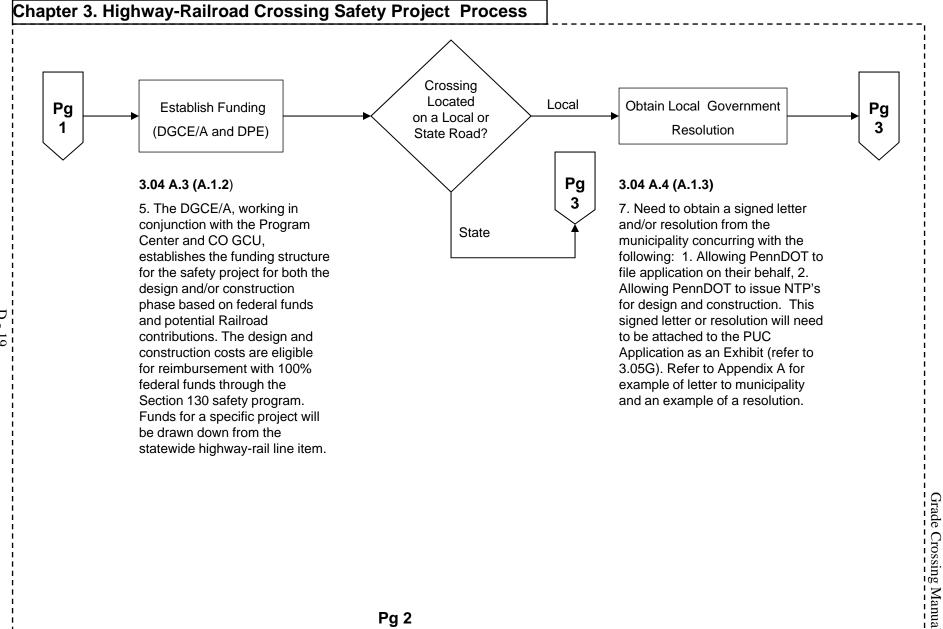
4. The DGCE/A requests from the RR a cost estimate for the proposed work to be completed at the crossing. This estimate will be used in the programming of the project with the District Programming Engineer (DPE).

Have a letter signed by PennDOT containing railroad concurrence of the safety project containing location, description, cost estimate and completion schedule for the project.

Reference Key – Example 3.01 (B.1)

The number outside the parentheses refers to chapter and section and the number inside the parentheses refers to the Standard Operating Procedure (SOP) in Appendix "D" for Grade Crossing-Safety Projects.

Pq 1



Pq 2

Pg

Chapter 3. Highway-Railroad Crossing Safety Project Process

Pg 2 Submit Project
List to DPE
(DGCE/A & DPE)

3.04 B (A.2)

8. After adoption of the statewide Safety Project program, the DGCE/A submits the District's project list and MPMS information to the DPE for processing. An MPMS number is then assigned to the new active project(s). This is done in twoyear cycles with updating occurring throughout the period. This will be followed by preparation of a Program Center request to the DPE identifying the new safety project, location, and funding source based on PennDOT's allotment of funds. Be sure to include the DOT # in the project description. See Appendix F for more information and guidance on the Safety Program.

Establish SPNs for Design &/or Construction Phases (DGCE/A & DPE)

3.04 C

9. Establish WBS/SPN for design and/or construction phase. Railroad projects are Phase 01 in the WBS/SPN.

3.05 A (B.1)

10. The DGCE/A shall submit to the District Environmental Manager (DEM), at a minimum, a project description, location map, DOT #, and MPMS # so that they can prepare and have approved (in most cases) a Level 1A CEE. The Level 1A CEE can typically be approved at the District level.

Obtain Environmental

Clearance

(DGCE/A & DEM)

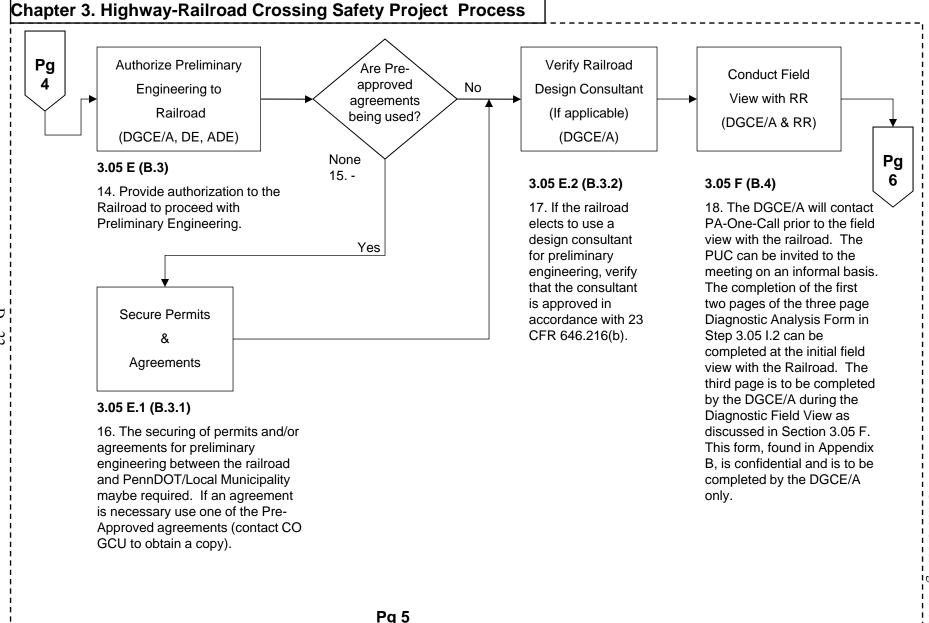
Pg 3

Pg

Pg

Chapter 3. Highway-Railroad Crossing Safety Project Process Design, Implement, Obtain ROW Prepare D-4232 & Maintain Detour Pg for Construction Clearance Funds & Obtain Approval Approvals 3 (DGCE/A & DRA) (DGCE/A (If applicable) & DPE) 3.05 B (B.1) 3.05 C 12. Should a project 11. The DGCE/A shall Complex Projects require a full detour (e.g., submit to the District ROW 3.05 D (B.2) Administrator (DRA) a installation of high-type project description and surface), determine if the 13. The DGCE/A shall prepare location map of the project District is willing to design, and submit a D-4232 to the DPE requesting ROW implement and maintain requesting Federal authorization Clearance for the safety the detour. If on a local of the construction funds for the project. In most cases the road determine if the project. The DPE will finalize the proposed safety municipality is willing to D-4232 for submission to CO improvements are cover the necessary Center for Program Development detour. If the railroad is contained within for approval, then it will be PennDOT's and RR's required to take care of the submitted to FHWA for approval. existing ROW. detour then this task and The D-4232 needs to include a cost would become part of statement that certification of the construction costs and compliance with 23 CFR 646.214 are eligible for federal has been met. reimbursement.

Pq 4



municipality and county. If necessary the

listed in the Certificate of Service and in the

statement in the caption be bold and italic as shown in Appendix C (all in accordance with the Federal Grade Crossing

caption. For various examples of captions

Railroad Owner and Operator are to be

refer to Appendix C. For Section 130

Program).

projects it is required that the following

Chapter 3. Highway-Railroad Crossing Safety Project Process Pg Prepare PUC Develop **Identify Affected** Pg Application (DGCE/A Situation Plan Utilities or CO GCU) (DGCE/A & RR) (DGCE/A / Utility Unit) Data for PUC 3.05 F.2 (B.4.1) 3.05 G.17 (B.5.1) 3.05 H (B.6) Application & 19. The DGCE/A and 21. The DGCE/A shall 22. Refer to Appendix C for the PUC Assemble Required Railroad work together submit to the Utility Unit Application form and complete all necessary Plans (DGCE/A) information for the safety project. The to develop a detailed a project description situation plan for the and location map of the Certificate of Service listing (parties of 3.05 G (B.5) placement of the project requesting a record) shall include the following in the 20. Begin the preparation of current listing of following order. (Names, Title, and mailing warning devices in the PUC Application with the affected utilities within address); Railroad (Owner/Operator); accordance with the latest edition of the collection of data as outlined the project area. This County; Municipality; Utilities. MUTCD. in section 3.05 G. Also listing will be used in the A true copy of the PUC Application shall be assemble any plans and/or preparation of the served to all parties listed on the Certificate Certificate of Service location maps to be attached of Service. The identical caption used on the to the application as Exhibits. listing in the application front of the application must appear on the to the PUC. This may include the detailed transmittal letter to the PUC, verification circuit and situation plans. If statement sheet, and the certificate of the circuit and situation plans service sheet. The caption should include a are submitted with the brief description of the project, application, the PUC can owner/operator of the railroad, DOT #,

Pq6

issue an approval of the plans

Order/Secretarial Letter. If

attach the municipalities

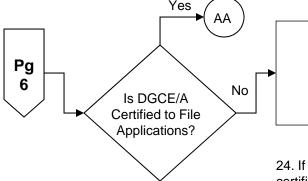
this project is on a local road.

resolution as an Exhibit to the

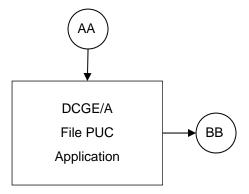
when they issue the

application as well.

Chapter 3. Highway-Railroad Crossing Safety Project Process



23. Certified Yes or No.



23A. The DGCE/A shall complete the PUC Application for the District's signature and mailing. The application will include the Verification statement, Certificate of Service, and appropriate Exhibits. Mail appropriate copies to the PUC and parties of record listed on the Certificate of Service listing.

24. If the DGCE/A is not certified to file applications with the PUC, then the DGCE/A shall transmit a draft copy of a completed application, location map, and any appropriate plans and/or resolutions to the CO GCU electronically. The CO GCU will complete the application and file with the PUC and transmit appropriate copies to the parties of record.

CO GCU

File PUC

Application

3.05 H.1 (B.6.1)

BB

Filing & Routing

of PUC Application

(DGCE/A or

CO GCU)

25. The application will be attached to a cover letter addressed to the Secretary of the PUC transmitting the signed original application, which shall include any Exhibits (plans, location maps, etc.) and one copy of the application with Exhibits to all of the parties of record listed on the Certificate of Service. A copy also needs to be sent to either the DE or Chief RWUS, the OCC. The Certificate of Service listing must be signed and dated by the individual making and mailing true copies of the application to all parties. A courtesy copy of the eFiled submission and the subsequent acknowledgement with docket number shall be sent to the Supervisor of Rail Safety Engineering Section, PUC.

3.05 I

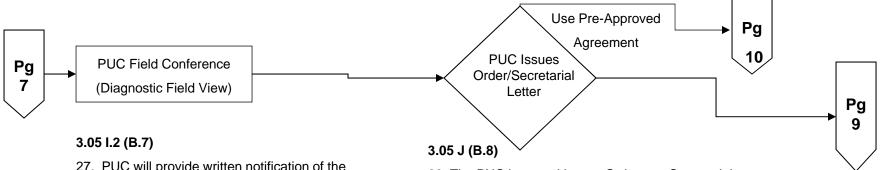
26. Once the PUC receives that application they will send out an acknowledgement of receipt on which will include the assigned PUC Docket number (e.g., A-00123456, A-2010-1234567).

PUC

Assigns Docket

Number

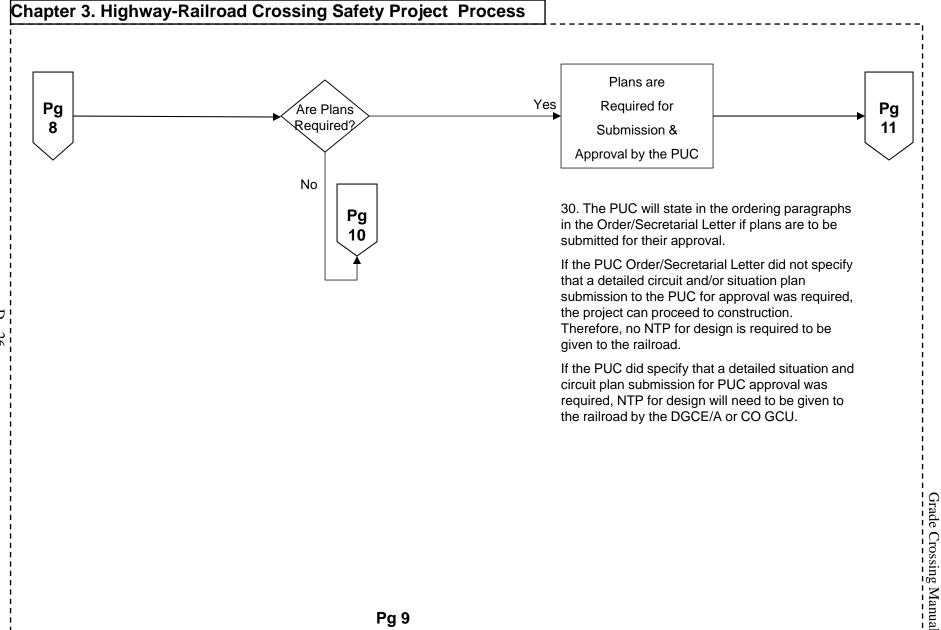
Chapter 3. Highway-Railroad Crossing Safety Project Process

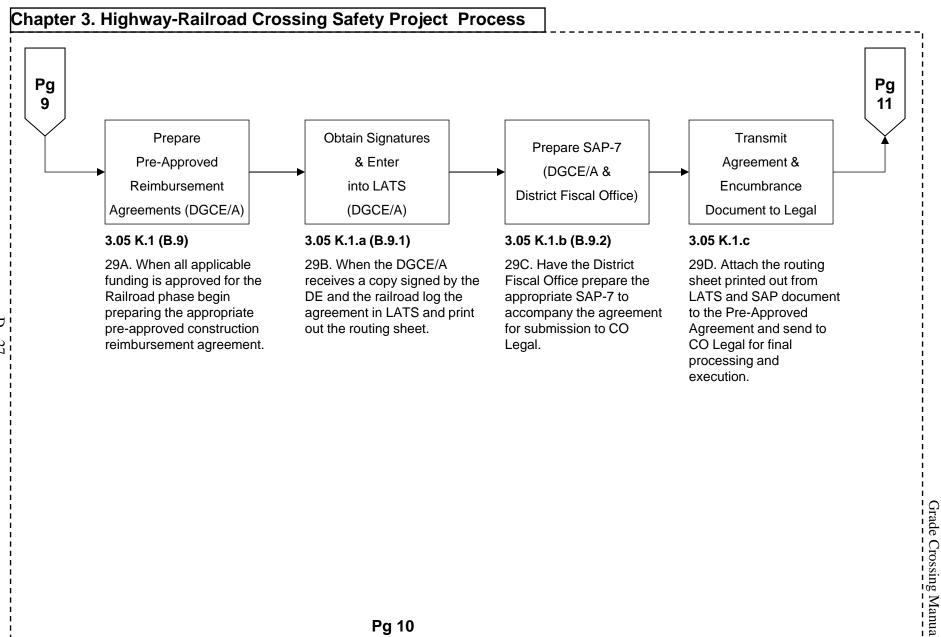


27. PUC will provide written notification of the date and time of the PUC Field Conference. Attendance is required by the DGCE/A. In most cases a representative from the CO GCU will be in attendance. The PUC classifies Diagnostic Field View (DFV) as a Field View/Conference. The term DFV is used to satisfy 23 CFR. The purpose of the DFV is to discuss the proposed improvements/alterations to the at-grade crossing. Should the "knowledgeable" parties of record come to an agreement and no ROW needs to be appropriated, the PUC will issue a Secretarial Letter. If an agreement cannot be reached, the PUC will schedule the project for a hearing. The first two pages of the threepage Diagnostic Analysis Form (see Appendix B) are to be completed by the DGCE/A prior to attendance at the DFV. The third page is to be completed by the DGCE/A during the Diagnostic Field View.

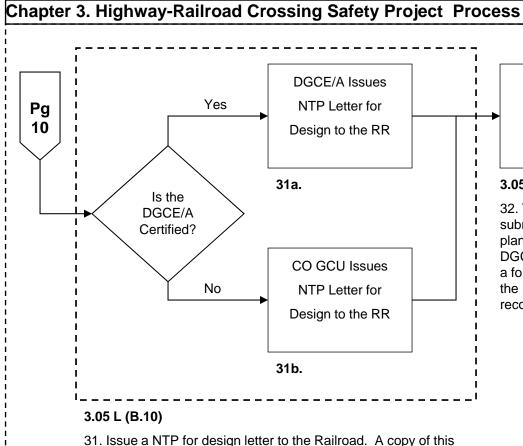
28. The PUC issues either an Order or a Secretarial Letter approving the project. This document will outline the party's responsibilities, costs, and future maintenance responsibilities. The DGCE/A needs to ensure that the PUC includes the ordering paragraph relative to reimbursement by PennDOT (23 CFR 140, 646) Refer to section 3.05 J for this language.

Immediately upon receipt of the PUC Order/Secretarial Letter it is imperative that the DGCE/A and the CO GCU complete a thorough review of the issued Order/Secretarial Letter to assure that what was agreed upon at the DFV has been correctly stated. If not, the OCC needs to be notified immediately so that a petition can be filed within 20 calendar days with the PUC requesting modification to the Order/Secretarial Letter.





12



RR Prepares
Circuit and/or
Situation Plans,

if required (RR)

3.05 M (B.11)

32. The Railroad may submit a copy of the plans and estimate to the DGCE/A prior to making a formal submission to the PUC and all parties of record.

3.05 N (B.12)

Prepare Traffic

Control Plan (TCP)

if required

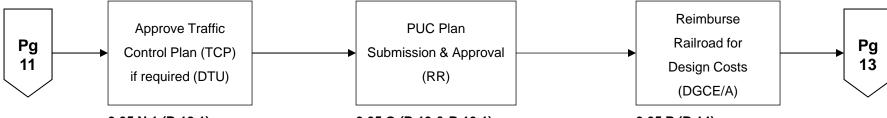
(RR or District)

33. If a full detour or lane restrictions are necessary for the construction of the project. The Railroad is required to prepare a detour plan or make reference to a Figure in Pub 213 and submit the appropriate plans to the DGCE/A for submission to the District Traffic Unit (DTU) for approval. If it was agreed upon at the early stages of the project that the District would prepare, implement, and maintain the necessary detour or lane restrictions. then the DTU will prepare the necessary plans.

letter should go to the PUC (attn: Supervisor of the Rail Safety Engineering Section), DE (attn: DGCE/A) and CO GCU. The letter needs to make reference to the PUC Order/Secretarial

Letter and that the design shall be in accordance with the latest edition of the MUTCD. Refer to example in Appendix A.

Chapter 3. Highway-Railroad Crossing Safety Project Process



3.05 N.1 (B.12.1)

34. The DTU will review and approve the railroad TCP's. If a full detour is required it is necessary that the DGCE/A provide proper notification along with a copy of the approved detour plan to the District Special Hauling Permits Office as well as the District Public Relations Office (Press Office) for proper coordination. This should be done at least 2 weeks prior to start of work (construction).

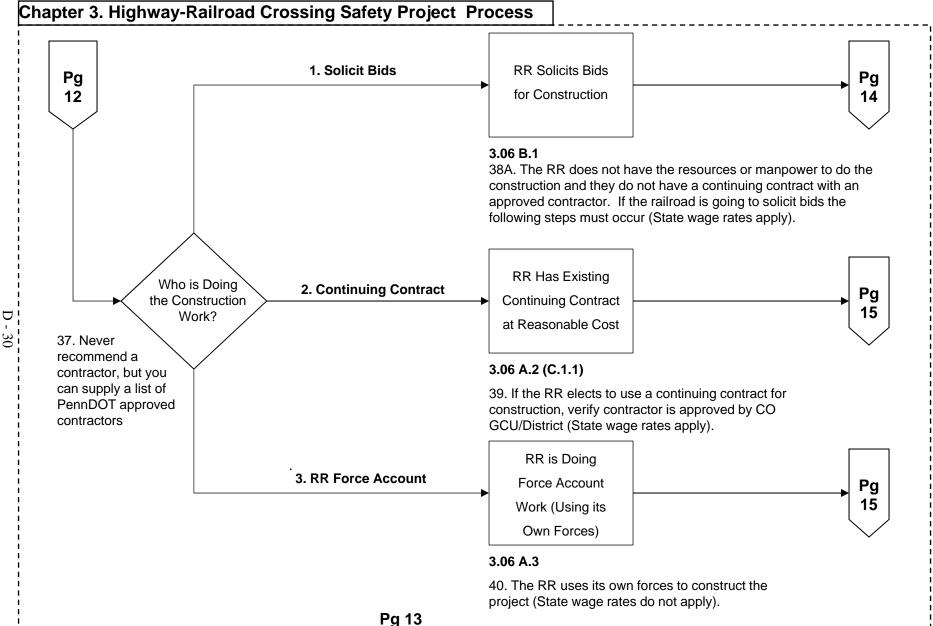
3.05 O (B.13 & B.13.1)

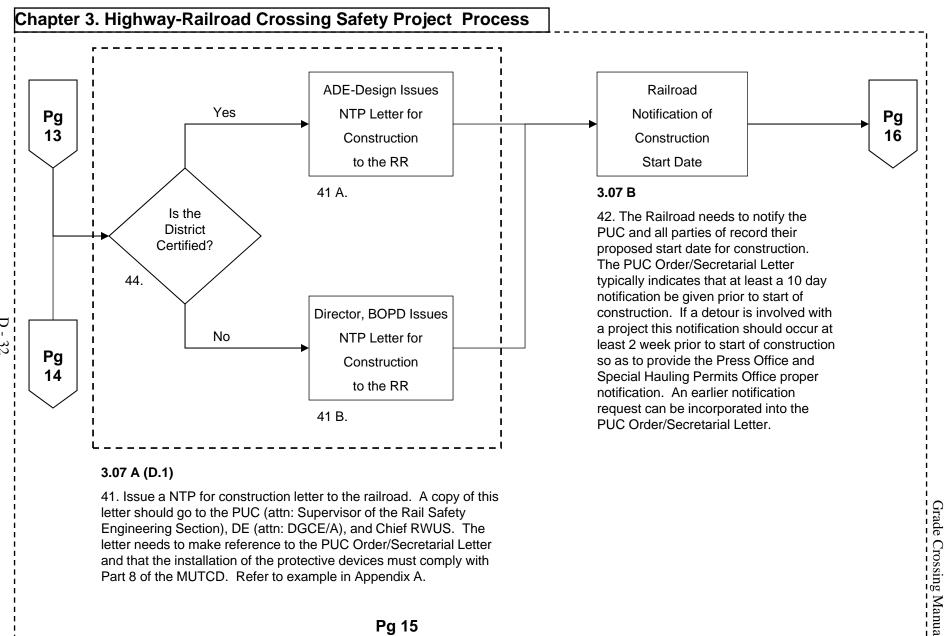
35. The Railroad is required to submit one copy of the detailed cost estimate and detail circuit and situation plans to the PUC and one copy to all parties of record.

After the 20 calendar day waiting period, if the PUC receives no objections to the plans by the parties of record, and the PUC themselves accepts the plans as submitted, then the PUC will issue an approval letter to the Railroad. A copy of this letter will be provided to all parties of record.

3.05 P (B.14)

36. Reimbursement to the Railroad for the design cost will be provided in the Pre-Approved State-Railroad Agreement.





Chapter 3. Highway-Railroad Crossing Safety Project Process **Notify District** Verify Placement Pre-Construction Construction Press Office &/or of Advance Pg Pg 15 Meeting Inspection 17 Special Hauling **Notice Signs** Permits Office (If applicable) 3.07 C (D.2) 3.07 D (D.3) 3.07 E (D.4) 3.07 F (D.5) 43. The DGCE/A shall 44. The DGCE/A is to 45. Depending on the 46. The DGCE/A. Construction provide proper notification verify that the Railroad has complexity of the project, Unit Inspector, or Dept. placed the proper advance or if there are multiple approved consultant shall and documentation, including applicable detour notice sings for projects parties involved in doing inspect the construction plans, to the Press Office having detours. These the work requiring activities for at least 30% of the construction duration. A diary of and Special Hauling Permits signs should be in place at coordination of work Office regarding the least one week in advance activities, then a Preconstruction activities, number proposed start of of construction start date Construction meeting is of employees, equipment, etc. construction date. and the signs should recommended. should be noted and retained in the project file for this can be indicate that this roadway will be closed on the used in review of the Railroad's (month/date). invoices. Project inspections shall also include verification that steel and iron products used meet the Buy America and BABA requirements as outlined in Chapter 7.07D. A minimum of Grade Crossing Manual one steel or iron product per project will be checked to verify compliance. Major items that would be expected to be verified include, but are not limited to. rail, signal masts, and bungalows.

Pq 16

CC

No

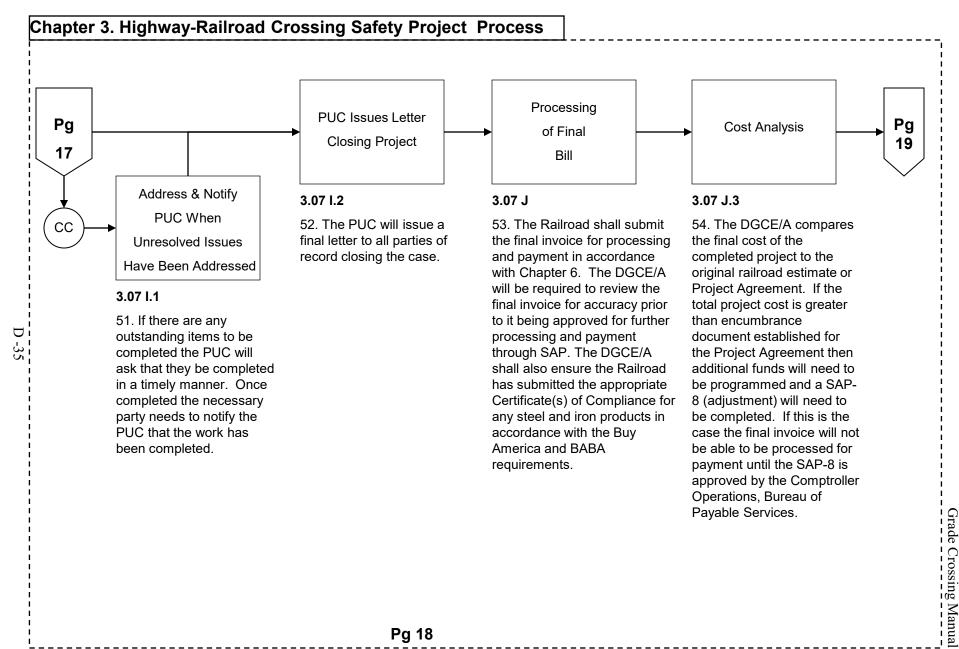
Pg

18

Chapter 3. Highway-Railroad Crossing Safety Project Process Yes Any Notify PUC Review and **PUC Schedules** Unresolved Pg when Construction Payment of & Conducts Construction 16 Issues? Invoices is Completed Final Inspection 3.07 G (D.5.1) 3.07 H (D.6) 3.07 I (D.7) 49. The PUC will 47. The Railroad may elect 48. The DGCE/A or Railroad 50. At the final inspection schedule a final the PUC will review the to submit construction is required to notify the PUC progress invoices seeking when construction is inspection at the work completed, test the reimbursement as complete. This will be crossing. All parties of equipment, assure that all established by the Prespelled out in the PUC record will receive improvements have been Approved State-Railroad Order/Secretarial Letter made in accordance with notification as to the date Agreement. The DGCE/A indicating which party is and time the final the approved plans, responsible notifying the PUC shall review all invoices inspection will take place. MUTCD, and PUC for accuracy and Buy as well as providing a The DGCE/A is required Order/Secretarial Letter. America Certificates of completion date for the work. to attend. Compliance, sign and date accepting invoice as

Pq 17

submitted, then forward to the Districts invoice clerk for processing and payment in SAP.



Chapter 3. Highway-Railroad Crossing Safety Project Process **Prepare Closeout** Certification **Update District** Pg **END** 18 & Forward Inventory to CO GCU 3.07 K (D.8 & D.9) 3.07 L (E.1) 55. Upon project completion and 56. In order to ensure that the Federal payment of final invoice the project is Railroad Administration's (FRA) US DOT National Crossing Inventory File to be closed out. The DGCE/A will need to have the WBS/SPN closed by (National File) is maintained with up-todate crossing data, DGCE/A is required the District Fiscal Office. Once that has been completed the DGCE/A can upon completion of all projects to use GCEDMS and update the crossing prepare a Certification of Railroad Agreement Completion form found in inventory data and add new photographs of the crossing showing the new Appendix B and submit to the CO GCU for final processing and facilities. PennDOT's procedure is to submission to the Comptroller's update, store, and transfer all US DOT Office. It is no longer required to wait Crossing Inventory Form information to until completion of an audit before the FRA through GCEDMS for all public

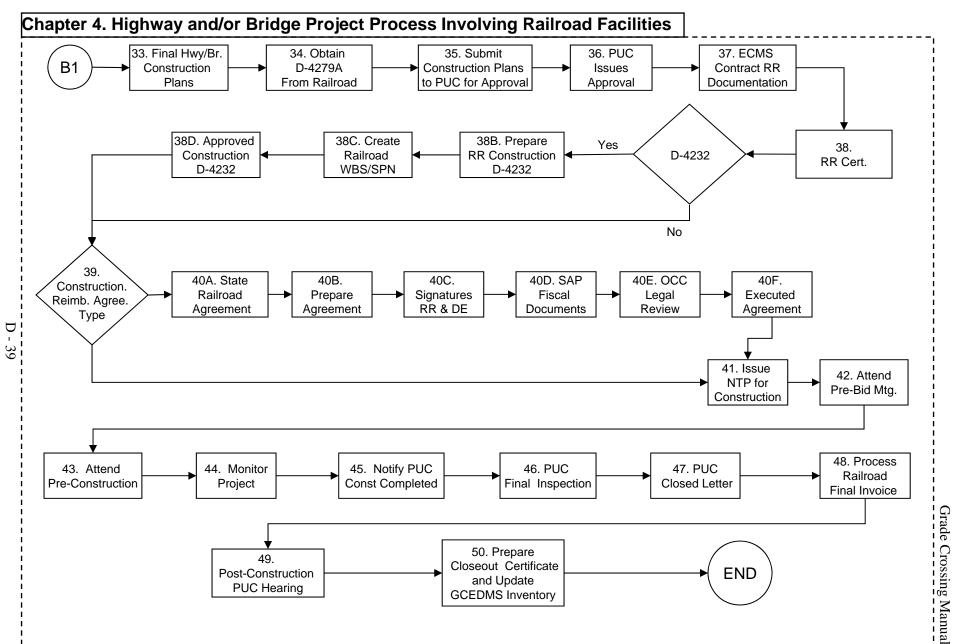
Railroad crossings. Refer to Chapter 8,

Section 8.03 for additional details and

procedures.

closing out the project. See Chapter

3, Section 3.07K for details.



Chapter 4. Highway and/or Bridge Project Process Involving Railroad Facilities

Initial **Start of Project Preliminary Engineering**

Preparation & Attendance of Eng. & Envir. Scoping Field View (E&ESFV) Railroad Portion (DGCE/A)

Pg Refer to Figure 4.1a Below

Reference Key – Example 3.01 (B.1)

The number outside the brackets refers to chapter and section and the number inside the brackets refers to the Standard Operating Procedure (SOP) in Appendix "D" for Grade Crossing-Safety Projects.

Start

1. The District's **Project Manager** (PM) needs to involve the DGCE/A at the initial programming stage of a highway/bridge project that has the potential of having Railroad involvement. This may include impacts to an atgrade crossing or highway under or over Railroad facilities that have the potential of being within the proposed project limits.

4.02 A (A.1)

2. The PM needs to invite the DGCE/A to all E&ESFV's for any highway/bridge project that contains Railroad facilities within the proposed project limits. At the E&ESFV meeting the DGCE/A needs to identify all potential impacts to Railroad facilities.

Development of Scope of Work & Independent Price Proposal

4.02 B.1

Preparation

of Scope of Work &

Independent Price

Proposal for Railroad

Tasks in ECMS

3A. The DGCE/A. based on the E&ESFV, will provide the PM with the necessary WBS codes for Grade Crossing Railroad activities, with specific details, to be included in the Scope of Work in ECMS. Along with this the DGCE/A will provide a manhour estimate for those Railroad tasks to be performed by Design consultant.

4.02 B.2

Short Listing & Final

Ranking of Design

Consultants

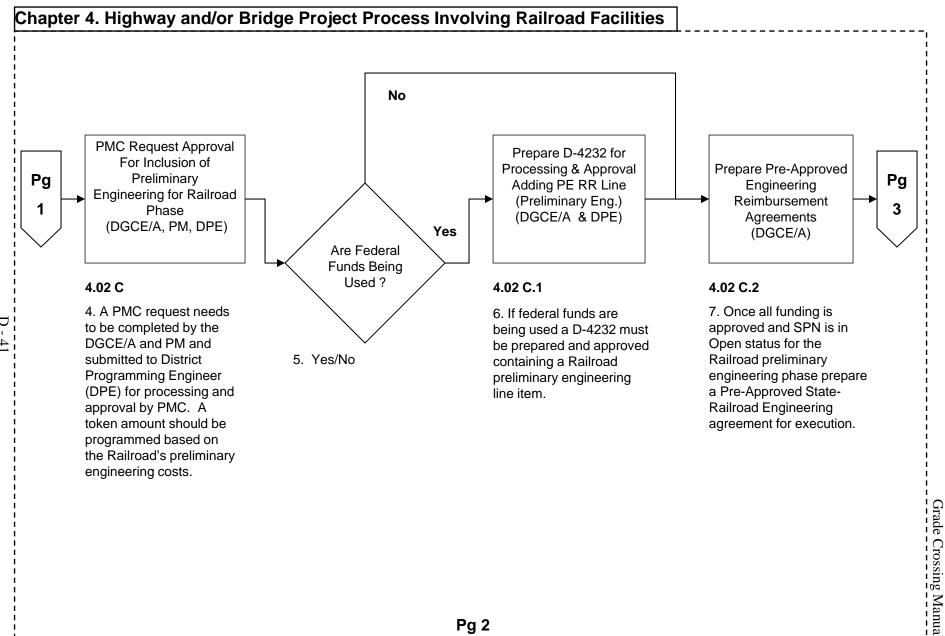
3B. The DGCE/A is to be involve in any scope clarification meetings with the design consultants. This is needed to clarify what tasks the DGCE/A and the design consultant will be responsible for. The DGCE/A will also be involved in the review of the design consultants technical and price proposals.

4.02 B

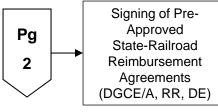
3. This flow process pertains to the DGCE/A involvement in the preparation of the PennDOT's Scope of Work and Man-hour Estimate with respect to the Railroad tasks. These Railroad tasks are associated with the consultant's responsibilities for the design of the highway/bridge project.

Figure 4.1 a

Pq 1



Chapter 4. Highway and/or Bridge Project Process Involving Railroad Facilities



4.02 C.2.a

8. Once the DGCE/A receives an original copy signed by the DE and the Railroad enter the agreement into the LATS system.

Prepare SAP-7 or SAP-8 (DGCE/A & Dist Fiscal Office)

4.02 C.2.b

9. Have the District Fiscal Office prepare the appropriate SAP-7 or SAP-8 to accompany the agreement for submission to OCC.

Document to Legal (DGCE/A)

4.02 C.2.c

Transmit Agreement &

Encumbrance

10. Attach the routing sheet print out from LATS and SAP document to the Pre-Approved Agreement and send to OCC for final processing and execution.

4.02 C.2.d

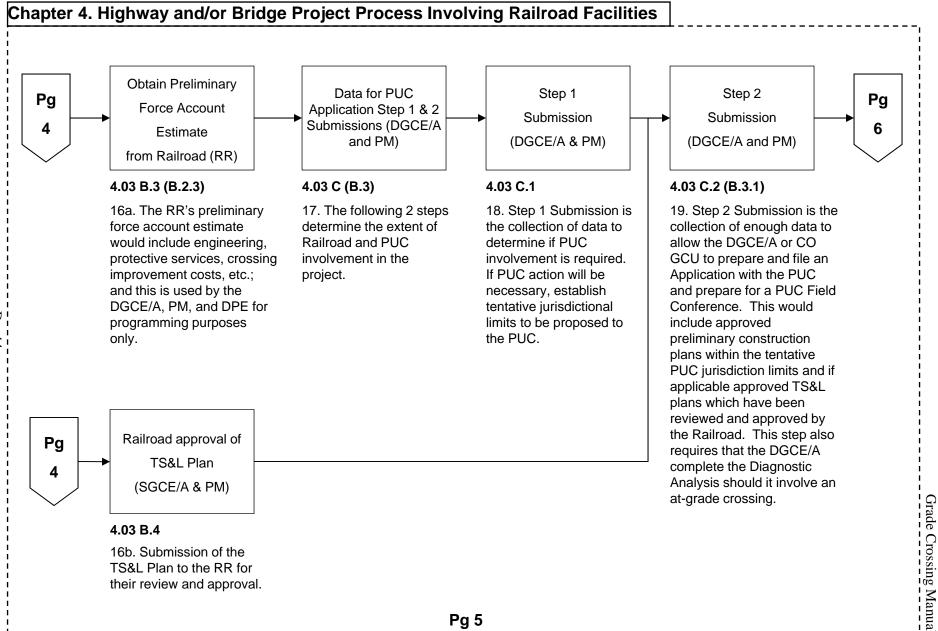
11. Once the DGCE/A

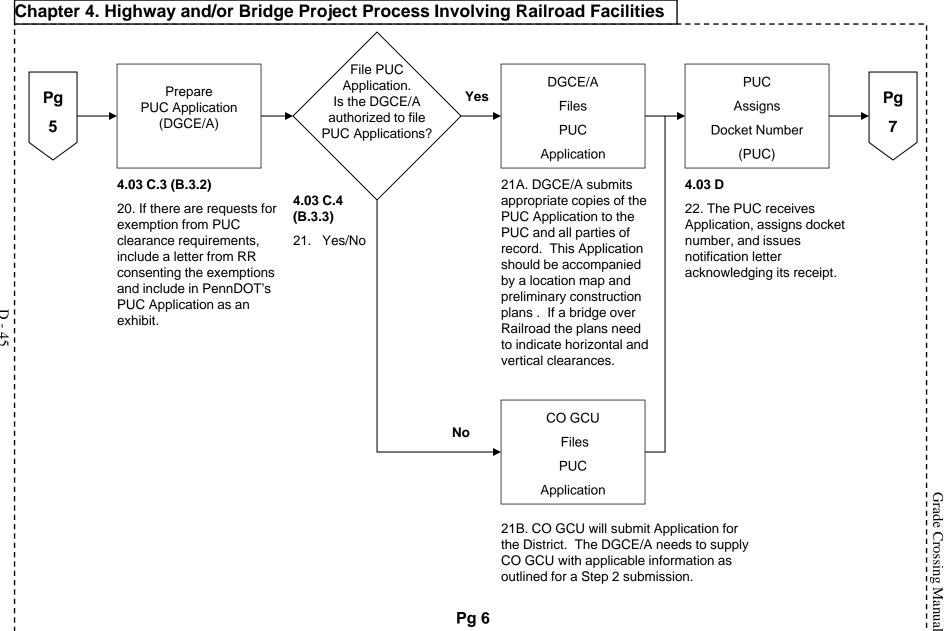
Receive Original Copy

of Executed Agreement

(DGCE/A)

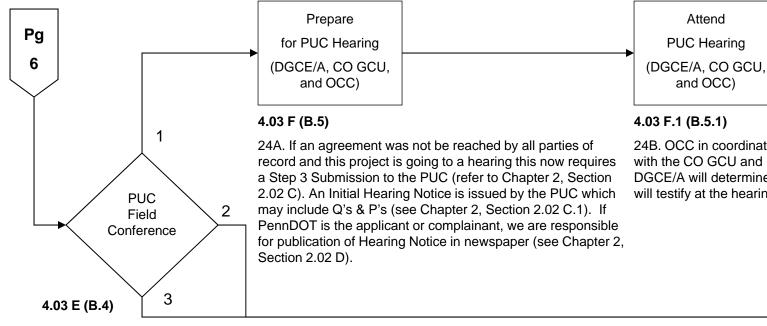
Chapter 4. Highway and/or Bridge Project Process Involving Railroad Facilities Schedule Project Status Authorize Schedule Initial Submission Pg Pg Preliminary Engineering Meeting with of D-4279 & Meetings with Railroad(s) for Railroad(s) 3 5 Railroad(s) D-4279A Forms (DGCE/A, PM, CO GCU, (DGCE/A) and RR) (DGCE/A) (DGCE/A & RR) 4.03 A (B.1) 4.03 B (B.2) 4.03 B.1 (B.2.1) 4.03 B.2 (B.2.2) 12. When transmitting 13. Immediately after 15. These meetings, preferably 14. The DGCE/A is to the executed copy of the the execution of an send the D-4279 and Dheld at the project site, should agreement to the 4279A forms to the be conducted at key milestones agreement, the DGCE/A Railroad, provide them is to schedule a meeting Railroad for completion throughout the development of with authorization to the preliminary plans. Invitees to with the Railroad(s), and resubmission back proceed with preliminary preferably held at the to the DGCE/A. These these meetings should include can be found in the Railroad, PM, design engineering. project site. consultant, DGCE/A and CO Appendix B. GCU. DGCE/A needs to receive a signed copy of the D-4279 form from the Railroad obtaining concurrence in vertical and horizontal clearances.





Pg





4.03 F.1 (B.5.1)

Attend

PUC Hearing

and OCC)

24B. OCC in coordination with the CO GCU and DGCE/A will determine who will testify at the hearing.

23. The PUC schedules a Field Conference at the project site. Attendees should include PUC, CO GCU, DGCE/A, Railroad, Design Consultant, District Bride Engineer (if required), and all parties of record. The purpose of this meeting is to discuss the proposed alterations/impacts to the Railroad facilities by the highway/bridge project. The PUC will set their jurisdictional limits, refine the scope of the project, assign maintenance responsibilities, and determine if the PUC needs to appropriate Railroad right-of-way.

- 1. Proceed to 4.03 F If an agreement can not be reached by all parties of record then the PUC will schedule this project for a formal hearing.
- 2. Proceed to 4.03 G If an agreement is reached with all parties of record and the PUC is required to appropriate Railroad property, then the PUC will issue an Order.
- 3. Proceed to 4.03 G If an agreement is reached with all parties of record and the PUC is not required to appropriate Railroad property, then the PUC can issue a Secretarial Letter instead of an Order. Pg 7

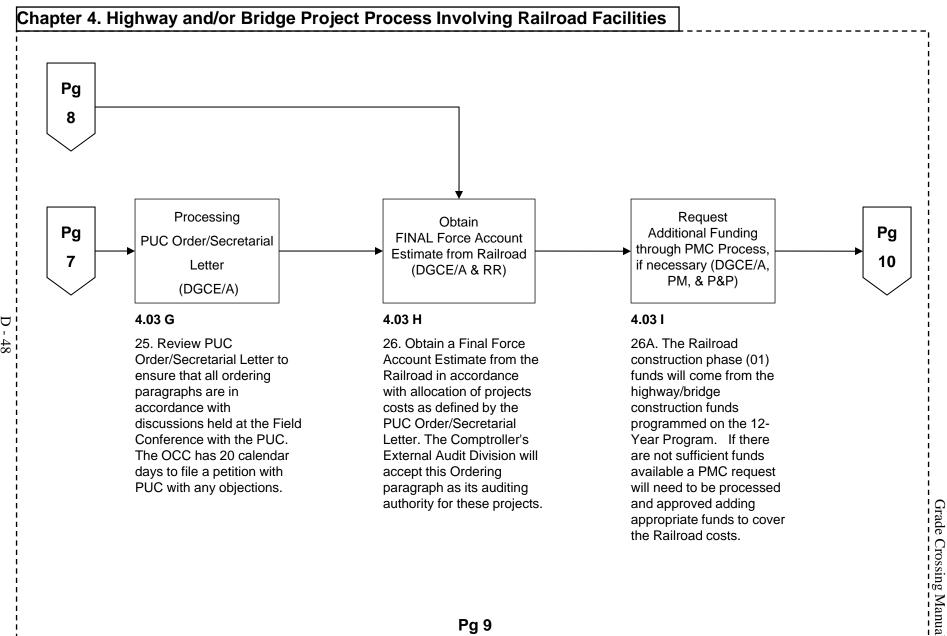
Note

- 1. Formal Hearing
- 2. Appropriate property (PUC will issue Order)
- 3. Appropriate property not required (PUC issue Secretarial Letter)

Publication 371

Chapter 4. Highway and/or Bridge Project Process Involving Railroad Facilities Review Recommended Obtain Pg Decision Recommended Pg Issued PUC Order Decision by ALJ (PUC) (DGCE/A, PM, and OCC) 4.03 F.2 4.03 F.3 (B.5.2) 4.03 F.4 (B.6) 24D. Exceptions to the 24E. The PUC will adopt an 24C. The Administrative Law Judge (ALJ) will issue a Order and mail to all parties of Recommended Decision must be filed within 20 calendar days; record after review of recommended decision based on the record and the law. therefore DGCE/A must reply to recommend decision, briefs, This is not a final Order. OCC within 10 calendar days of exceptions, etc. receipt. Grade Crossing Manual

Pg 8



12

Chapter 4. Highway and/or Bridge Project Process Involving Railroad Facilities Submission Notification Receive PUC Order Recording of PUC of Signed ROW Plans Pg **Order Appropriating** Appropriating of Recording & metes and bounds Right-of-Way Right-of-Way property Description to 10 Sent to PUC (PUC) (DGCE/A & Dist ROW) PUC (DGCE/A) (DGCE/A and PM) 4.05 B 4.05 B.1 4.05 B.2 4.05 B.3 29. Submit appropriate 30. The PUC will issue 31. DGCE/A provides 32. Proof of recording of copies of ½ size ROW an original certified copy original certified copy of Railroad property of the Order excerpt Plans signed by the DE the Order to the District (Order) must be and metes and bounds appropriating the ROW Unit for recording submitted to the PUC Railroad right-of-way. descriptions, and in the County for their records. The PUC may, recitations to the PUC Courthouse. depending on which and all parties of record. The PUC prefers to County the Order will be

recorded, provide a

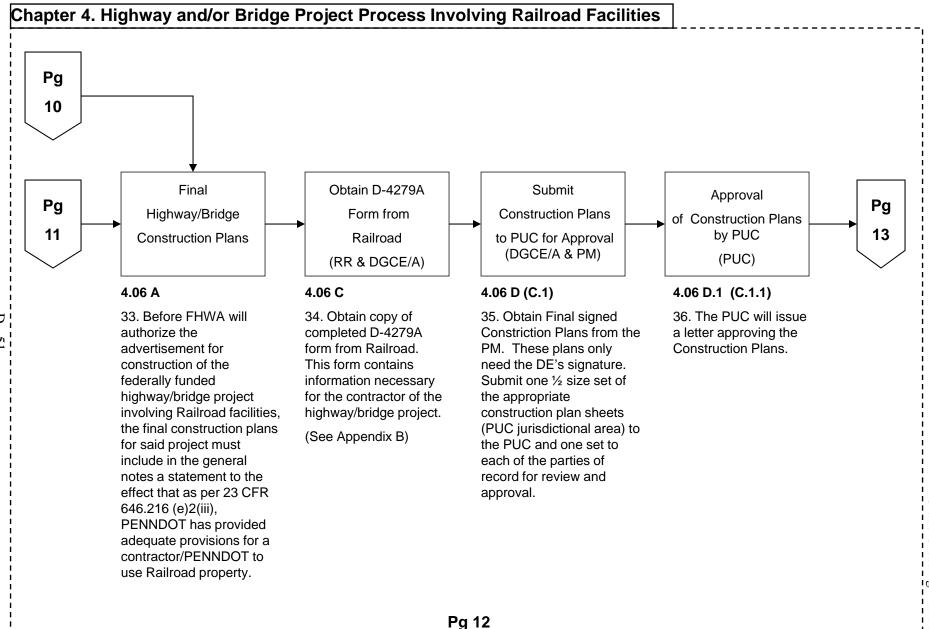
notarized copy.

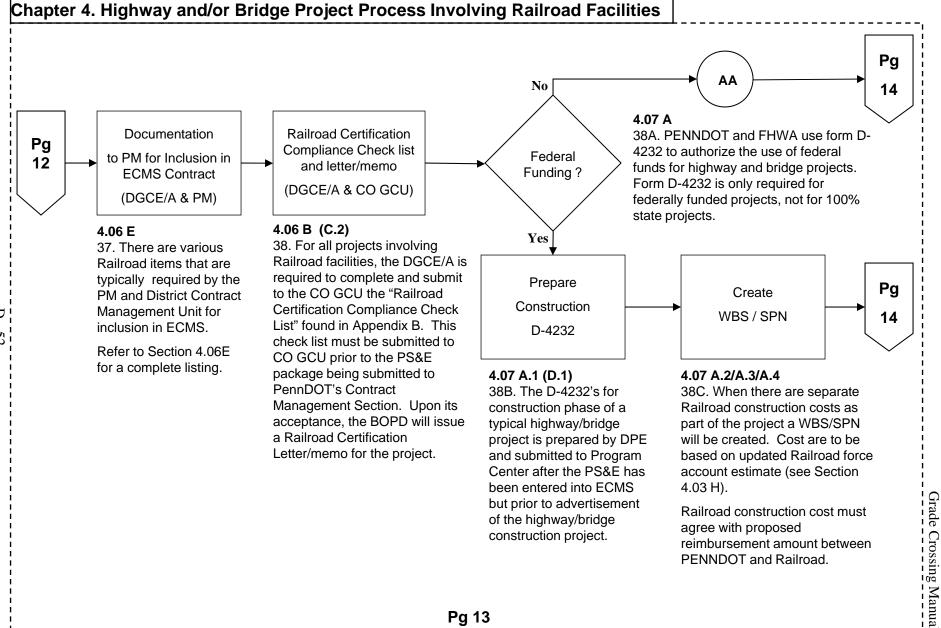
receive the metes and bounds descriptions via

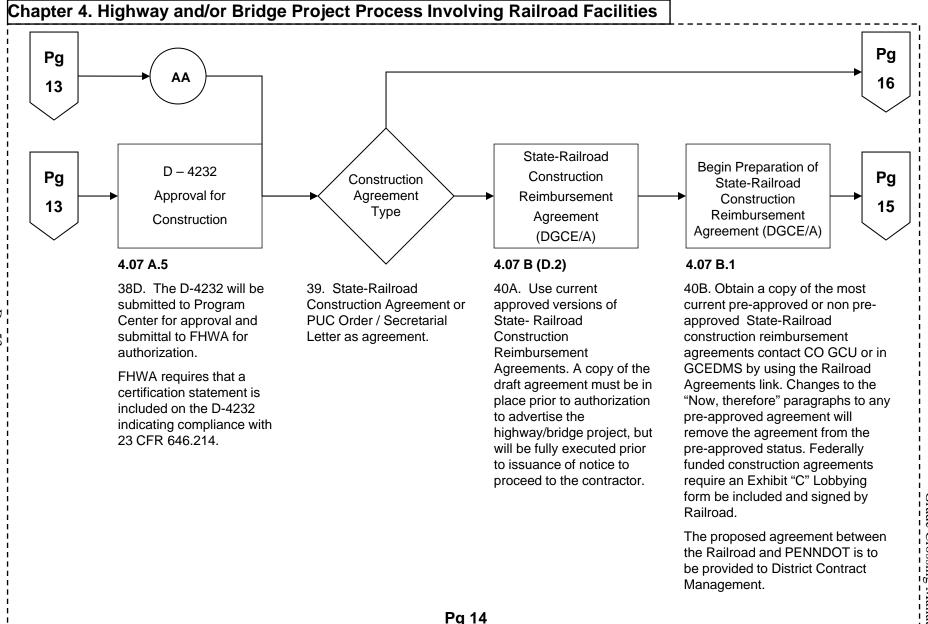
electronically in Word

hard copy &

format.







BB

Pg

16

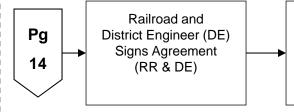
Chapter 4. Highway and/or Bridge Project Process Involving Railroad Facilities

Prepare

SAP 7 or 8

Fiscal

Documents



4.07 B.1.a

40C. State-Railroad reimbursement construction agreement must first be signed by Railroad and then by District Engineer (DE). Once the original copy of the signed agreement is received from the Railroad it must be entered into LATS, which will generate a signature routing sheet to be attached to the agreement.

4.07 B.1.b

40D. Request District Fiscal Office to prepare the appropriate SAP-7 or SAP-8 document. The SAP document will submitted with the construction agreement to OCC. The SAP document cannot be entered into SAP system until after the D-4232 is authorized and the Railroad SPN is placed in open status.

4.07 B.1.c

40E. Submit the agreement and SAP encumbrance document to Office of Chief Council for final processing and execution under an interoffice transmittal letter.

Transmit Agreement

to Office of

Chief Council

4.07 B.1.d

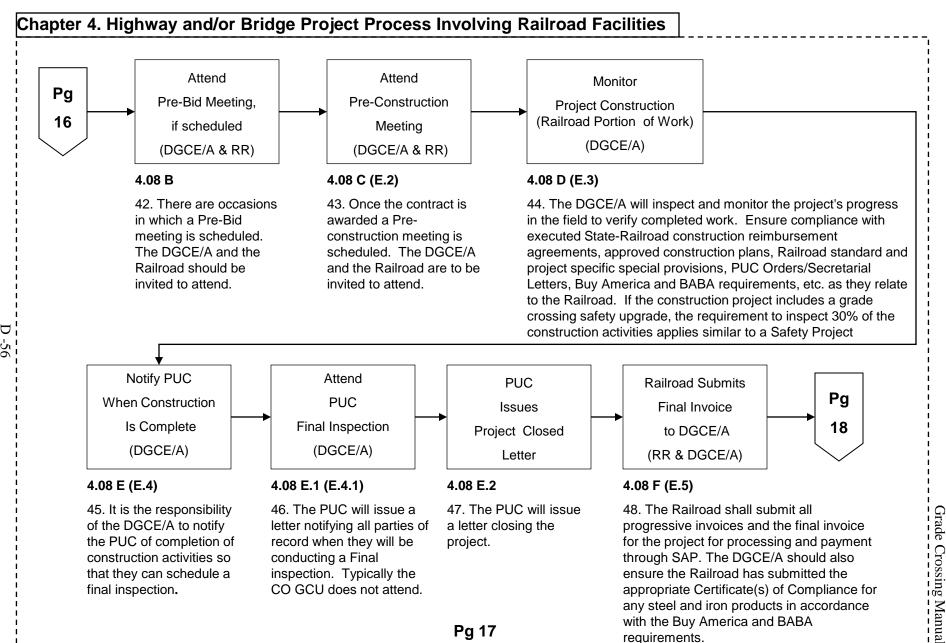
40F. Once the DGCE/A receives the original copy of the fully executed agreement, distribute appropriate copies and retain the original for the project files. Some Railroads require a signed certification statement with a copy of the executed agreement be sent to them. This certifies that this is a true and correct copy of the original agreement.

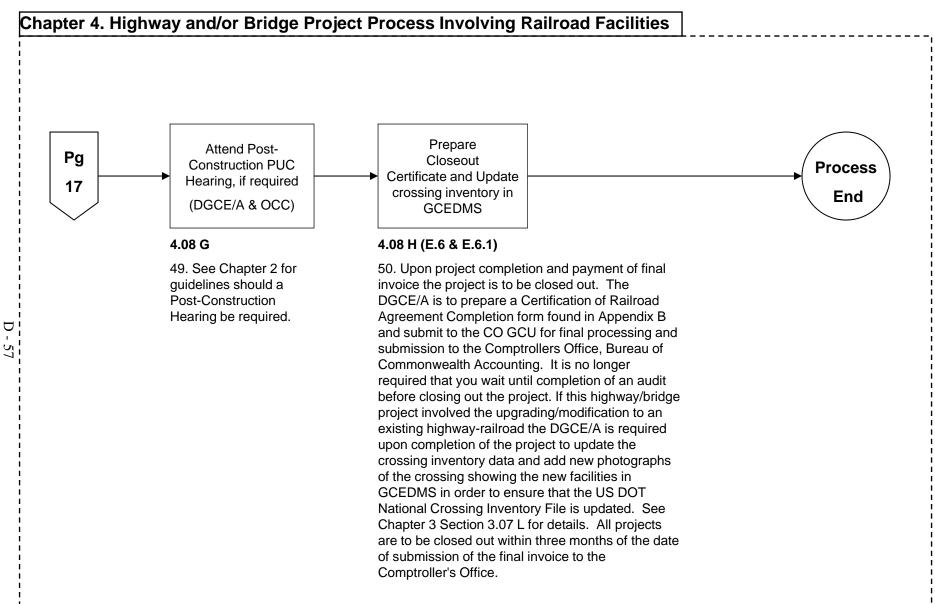
Executed

Construction

Agreement

Publication 371





MPMS Number	County/Township	Project Name (Road Name)	Railroad Name and Contact Person	DOT Number	Railroad Estimated Construction Costs	Signature Resolution	CEE Approved	D-4232 Constr. Approved	PUC Appl. Submittion Date	PUC Field View Date	PUC Secretarial Letter	PUC Docket Number	Reimb. Ageement Number	Encumbrance date & amount	Railroad NTP for Design issued by District	Plans approved by PUC	Constr. Start Date	Railroad NTP for Construction issued by District	PUC completion date set	Final PUC Inspection	PUC case closed date	Documents and data added to GCEDMS

	Project	Details	
MPMS No.		ECMS No.	
SR/Section		County	
Railroad		Project Title	
Est. Let Date		DOT Number	
NTP Issued		PUC No.	

	ECMS Documents for PDC and	Special Provisions
All PUC Secretarial Letters/Orders	Railroad Certification Letter	Railroad Insurance Special Provision
D-4279 and D-4279A forms	Railroad Contact Information	Railroad Co. Contact Person Special
All Executed and Draft RR Agreements	Railroad Insurance Specifications	M&P of Railroad Traffic Special Provision
Letter transmitting Constr. Plans to PUC	Copy of Pvt. Crossing Agreement	RR Protective Services Costs Special
All Appropriate Railroad Specifications	Applicable RR Plans (ex. locking gate)	Railroad ROE Special Provision
Copy of ROE Permit/Agreement	PUC Approval Letter of Constr. Plans	Railroad Pvt. Crossing Special Provision

	Progra	mming			Design					ROW	Plans		Constr	uction Agree Certifi	ement and R cation	ailroad	Construc	tion Plan	Documentation in ECMS and GCEDMS	
	Attend E&ESFV	Railroad PE Agreement Executed	Obtain D- 4279 and D- 4279A forms	Anniication	Attend PUC Field Conference	Required (Y/N)	PUC Appropriation of Railroad Property Require (Y/N)	Secretarial Letter issued	ROW Plans and M&B submitted to Railroad	Obtained Railroad	ROW Plans and M&B submitted to PUC	PUC Order	Draft State- Railroad Construction Agreement	RR Certification	Certification	Executed State- Railroad Construction Agreement	Submit Construction Plans to PUC	Approval of	Railroad Documenta- tion entered into ECMS	
Ī																				

	Project De	tails
MPMS No.	ECMS	S No.
SR/Section	Coun	ty
Railroad	Proje	ct Title
Est. Let Date	DOT	Number
NTP Issued	PUC N	No.

ECMS Documents for PDC and Special Provisions										
All PUC Secretarial Letters/Orders	Railroad Certification Letter	Railroad Insurance Special Provision								
D-4279 and D-4279A forms	Railroad Contact Information	Railroad Co. Contact Person Special								
All Executed and Draft RR Agreements	Railroad Insurance Specifications	M&P of Railroad Traffic Special Provision								
Letter transmitting Constr. Plans to PUC	Copy of Pvt. Crossing Agreement	RR Protective Services Costs Special								
All Appropriate Railroad Specifications	Applicable RR Plans (ex. locking gate)	Railroad ROE Special Provision								
Copy of ROE Permit/Agreement	PUC Approval Letter of Constr. Plans	Railroad Pvt. Crossing Special Provision								

Progra	ımming				Design					ROW	Plans		Constr	uction Agree Certifi	ment and R cation	ailroad	Construc	tion Plan		ntation in
Attend E&ESFV	Railroad PE Agreement Executed	PE Authorization to Railroad	Obtain D- 4279 and D- 4279A forms	Annlication	Attend PUC Field Conference	Required	PUC Appropriation of Railroad Property Require (Y/N)	Letter issued	ROW Plans and M&B submitted to Railroad	Obtained Railroad Concurrence	ROW Plans and M&B submitted to PUC	PUC Order	Railroad	Completion of RR Certification Check List	Certification		Submit Construction Plans to PUC		tion entered	Railroad Documenta- tion entered into GCEDMS
			·																	

	Project	Details	
MPMS No.		ECMS No.	
SR/Section		County	
Railroad		Project Title	
Est. Let Date		DOT Number	
NTP Issued		PUC No.	

ECMS Documents for PDC and Special Provisions										
All PUC Secretarial Letters/Orders	Railroad Certification Letter	Railroad Insurance Special Provision								
D-4279 and D-4279A forms	Railroad Contact Information	Railroad Co. Contact Person Special								
All Executed and Draft RR Agreements	Railroad Insurance Specifications	M&P of Railroad Traffic Special Provision								
Letter transmitting Constr. Plans to PUC	Copy of Pvt. Crossing Agreement	RR Protective Services Costs Special								
All Appropriate Railroad Specifications	Applicable RR Plans (ex. locking gate)	Railroad ROE Special Provision								
Copy of ROE Permit/Agreement	PUC Approval Letter of Constr. Plans	Railroad Pvt. Crossing Special Provision								

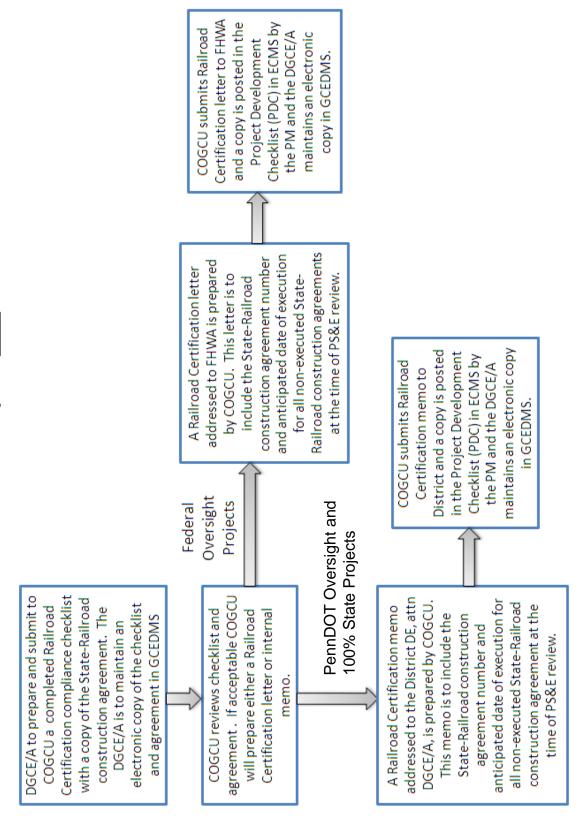
Progra	amming	Design							ROW	Plans		Constr	uction Agree Certifi	ement and R cation	ailroad	Construc	tion Plan		ntation in d GCEDMS
Attend E&ESFV	Railroad PE Agreement Executed	Obtain D- 4279 and D- 4279A forms	Annlication	Attend PUC Field Conference	Required (Y/N)	PUC Appropriation of Railroad Property Require (Y/N)	Letter Issued	ROW Plans and M&B submitted to Railroad	Obtained Railroad Concurrence	ROW Plans and M&B submitted to PUC	PUC Order	Draft State- Railroad Construction Agreement	RR	Certification			Receive PUC Approval of Plans	tion entered	Railroad Documenta- tion entered into GCEDMS

District ____-0

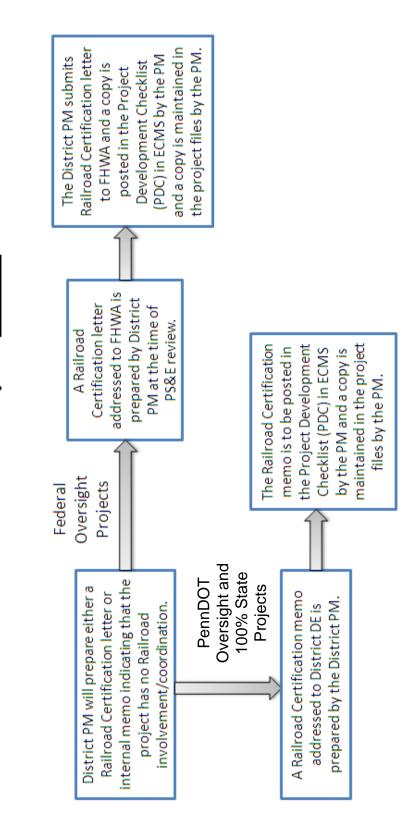
Grade Crossing Invoice Tracking

Project Name / DOT #	RR	MPMS#	D-4232 Amount	Encumb. Amount	RR Est.	Invoice #1	Invoice # 2	Invoice #3	Invoice # 4	Invoice # 5	Invoice # 6	Invoice # 7	Invoice # 8	Invoice # 9	Invoice # 10	Invoice # 11	Invoice # 12	Invoice # 13	Balance	Closed Out
																				+

Railroad Certification Process for all Projects with Railroad Involvement



Railroad Certification Process for all Projects without Railroad Involvement



APPENDIX E

PRE-APPROVED AGREEMENTS AND LEGAL APPROVAL TRACKING SYSTEM (LATS)

This appendix contains the following items:

- 1. Pre-Approved Agreements
- 2. Certification for Agreement
- 3. Document Review Checklist
- 4. Legal Approval Tracking System (LATS)
- 5. PennDOT Contracts Authorization for USERID (LATS)
- 6. LATS User's Guide

Pre-Approved Agreements



COMMONWEALTH OF PENNSYLVANIA OFFICE OF ATTORNEY GENERAL HARRISBURG, PA 17120

KATHLEEN G. KANE ATTORNEY GENERAL

April 16, 2014

15th Floor, Strawberry Square Harrisburg, PA 17120 (717) 783-1111

Shawn E. Smith Deputy General Counsel Office of General Counsel 333 Market Street, 17th Floor Harrisburg, PA 17108

In re: Contract Form Approval:

Department of Transportation

Form #'s: 18-FA-36.1, 18-FA-52.1, 18-FA-53.1 18-FA-55.1, 18-FA-56.1, 18-FA-57.1, 18-FA-58.1, 18-FA-59.1, 18-FA-60.1 & 18-FA-61.1

See Attached Spreadsheet

Dear Mr. Smith:

The attached spreadsheet lists all pre-approved forms that will be included in the program for future use. Any forms not listed are no longer considered valid. Should your agency desire to enter a new document into the program in the future, you will need to obtain approval from our office at that time.

Please note that the forms have been given new form identification numbers. Please use these numbers for all future references.

Pursuant to Section 204(f) of the Commonwealth Attorneys Act, I hereby approve the forms on the attached list for use by the Department of Transportation without additional approval of each individual contract, subject to the following conditions:

- That the preapproved form be used without changes in the substantive terms and conditions, and
- 2. That the Department of Transportation submit an annual report to the Office of Attorney General for all pre-approved form contracts within thirty (30) days of the end of each fiscal year, no later than July 31, for all form contracts in this program, unless otherwise notified. The annual report shall be submitted in hard-copy form and include the following for each form used: form number, name of all contractors, subject and the amount of the contract, and
- 3. That the Department of Transportation will be responsible for obtaining proper execution of the documents, and

PennDOT Form Contract Approval Page 2

April 16, 2014

- 4. That the execution shall be accomplished in a timely fashion, coincident with the effective date of the agreement, and
- 5. That the Office of Attorney General reserves the power to review any given contract upon request.

This approval may be revoked for failure to comply with any of the stated conditions.

In addition to the above requirements, it will not be necessary to check the attachment box on the SAP documents when the Department of Transportation Standard Terms and Conditions are being used. Use of any other attachment in lieu of the terms will require legal review.

You may contact me at (717) 783-1111 or via correspondence addressed to my attention, 15th Floor, Strawberry Square, Harrisburg, PA 17120.

KATHLEEN G. KANE ATTORNEY GENERAL

By: Robert A. Mulle

Chief Deputy Attorney General

Legal Review Section

RAM:mlm

cc: William J. Cressler, Esq.

PennDOT (18)

FORM#	OGC APPROVAL DATE	OAG APPROVAL DATE	FORM DESCRIPTION
18-FA-1.0	3/26/13	5/1/13	Section 5310 (Formerly Section 16) FTA Grant Agreement
18-FA-2.0	3/26/13	5/1/13	Consolidated Assistance Grant Agreement for Community Transportation Service Programs
18-FA-3.0	3/26/13	5/1/13	Consolidated Capital Assistance Grant Agreement
18-FA-4.0	3/26/13	5/1/13	Consolidated Operating Assistance Grant Agreement
18-FA-5.0	3/26/13	5/1/13	Comprehensive Maintenance Services Agreement
18-FA-6.0	3/26/13	5/1/13	Excess Maintenance Agreement
18-FA-7.0	3/26/13	5/1/13	Transportation Enhancements Program Federal- Aid Reimbursement Agreement (Private Sponsors)
18-FA-8.0 18-FA-9.0	3/26/13 3/26/13	5/1/13 5/1/13	Transportation Enhancements Program Federal- Aid Reimbursement Agreement (Political Subdivisions and Other Public Bodies) Aviation Grant/Offer Agreement
18-FA-10.0	3/26/13	5/1/13	Federal Aviation Administration Grant Agreement
18-FA-11.0	3/26/13	5/1/13	Retroactive Bridge Project Reimbursement Agreement
18-FA-12.0	3/26/13	5/1/13	Non-Federal-Aid Bridge Project Reimbursement Agreement (Municipal Right-of-Way)
18-FA-13.0	3/26/13	5/1/13	Non-Federal-Aid Bridge Project Reimbursement Agreement (Department Right-of-Way)
18-FA-14.0	3/26/13	5/1/13	Federal-Aid Bridge Project Reimbursement Agreement (Department Right-of-Way)
18-FA-15.0	3/26/13	5/1/13	Federal-Aid Bridge Project Reimbursement Agreement (Municipal Right-of-Way)
19.EA 16.0	2/26/12	E /1 /1 2	Rail Freight Assistance Program Grant
18-FA-16.0	3/26/13	5/1/13	Agreement
18-FA-17.1	1/29/14	3/5/14	Preliminary Engineering Agreement, Federally Funded Projects
	-,,	-, -, -	Preliminary Engineering Agreement, State
18-FA-18.1	1/29/14	3/5/14	Funded Projects

PennDOT (18)

			Supplemental Preliminary Engineering -
18-FA-19.1	1/29/14	3/5/14	Construction Agreement
			Construction Agreement, Federally Funded
18-FA-20.1	1/29/14	3/5/14	Projects
40.54.04.4			
18-FA-21.1	1/29/14	3/5/14	Construction Agreement, State Funded Projects
40.54.00.0	- ((Project Specific Open-end Engineering
18-FA-22.0	3/26/13	5/6/13	Agreement
			Project Specific Supplemental Engineering
18-FA-23.0	3/26/13	5/6/13	Agreement
18-FA-24.0	3/26/13	5/6/13	Project Specific Engineering Agreement
	,		Project Specific Open-end Supplemental
18-FA-25.0	3/26/13	5/6/13	Engineering Agreement
18-FA-26.0	3/26/13	5/6/13	Non-Specific Open-End Engineering Agreement
18-FA-27.0	3/26/13	5/6/13	Messenger Services Agreement
10 TA 27.0	3/20/13	3/0/13	Messenger Services Agreement
			Agreement to Authorize Electronic Access to
18-FA-28.0	3/26/13	5/6/13	PennDOT Systems (Political Subdivisions)
	0, 20, 20	3,0,13	Agreement to Authorize Electronic Access to
18-FA-29.0	3/26/13	5/6/13	PennDOT Systems
18-FA-30.0	3/26/13	5/6/13	Card Agent Services Agreement
18-FA-31.0	3/26/13	5/6/13	Agent Services Agreement
2017/132.0	3/20/13	3/0/13	Agent Services Agreement
18-FA-32.0	3/26/13	5/6/13	On-line Messenger Service Center Contract
			Winter Traffic Services Supplemental Agreement
18-FA-33.0	3/26/13	5/6/13	(5-year Renewal Period)
			Winter Traffic Services Agreement (5-Year
18-FA-34.0	3/26/13	5/6/13	Renewal Period)
18-FA-35.0	3/26/13	5/6/13	Federal Highway Safety Project Grant
			Automated Red Light Enforcement Program
18-FA-36.1	3/31/14	4/16/14	Project Funding Agreement - Individual Projects
18-FA-37.0	3/26/13	5/6/13	Infrastructure Bank Loan Agreement
			Race/Parade Permit and Indemnification
18-FA-38.0	3/26/13	5/6/13	Agreement
			Film Shoot/Road Closure Permit and
18-FA-39.0	3/26/13	5/6/13	Indemnification Agreement
18-FA-40.0	3/26/13	5/6/13	Agility Agreement
			•
18-FA-41.0	3/26/13	5/6/13	Settlement Agreement (Post Condemnation)
18-FA-42.0	3/26/13	6/14/13	Agreement of Sale (Easement)
18-FA-43.0	3/26/13	6/14/13	Deed of Easement
		- 1 1.	
18-FA-44.0	3/26/13	6/14/13	Temporary Easement for Construction Purposes
10 54 45 0	2/20/42	C /1 A /1 3	Highway Construction Project Agreement (4000)
18-FA-45.0	3/26/13	6/14/13	Highway Construction Project Agreement (408C)

S E A L

Certification for Agreement

CERTIFICATION

I,, Number, 1	between the	, here	by certify the	at this is a tru ylvania, De	ne and correct partment of	ct copy of Agreemer	ıt d
in the possession of the	Commonwea	alth of Pennsy	lvania, Dep	artment of T	ransportation	on.	3
						_	
Subscribed and Sworn to before me:	Month	DayY	ear				
Signature of person administering the oath							

Publication 371 Grade Crossing Manual

July 2001

Document Review Checklist

Contract No	0	 	
Contractor			

Item	Y	N	N/A
Use proper routing slip generated through LATS.	-		
2. Each agreement must have a separate routing slip.			
3. Is PennDOT contact person name & phone number on routing slip?			
4. Is the party name consistent on all documents?			
5. Did you submit only one (1) copy of agreement?			
6. Is the Agreement Number in top right hand corner of agreement?			
7. The Federal Identification Number (FID No.), Social Security Number or Tax			
Identification Number must appear below the Agreement Number, which is a nine- (9)			
digit field, and the SAP Vendor Number must appear below FID No., which is a six (6)			
digit field.			
8. Is the effective date on the agreement left blank?			
9. Are all attachments referenced in agreement?			
10. Is contract a supplement or amendment? Does its agreement number indicate that it is a			
supplement or amendment? Did you include copies of the original agreement and any			
previous amendments for review purposes? (DO NOT SEND ORIGINALS)			
11. Does the contract contain the most current Exhibits? They are found at P:\penndot			
shared\EXHIBITS FOR AGREEMENTS\.			
12. The Agreement <u>does not</u> require a corporate seal for proper execution. However, if it			
does, then party name must match that of the corporate seal.			
13. Tab signature page on right hand side of agreement.	\bot		
14. Has the contractor signed & dated the agreement?			
15. Has the agency head or authorized designee signed & dated the agreement?			
16. Have all changes been initialed and dated by the agency and the contractor?			
17. Did you place a binder clip or staple the agreement?	1		
18. Is the party name complete? If says, "Joe's Lumber," make sure what type of entity the			
contractor is and insert full name.			<u></u>
19. Unless it is an out-of-state corporation, all corporations must be followed by "Inc.,"			
"Incorporated," "Corp." or "Corporation."			

Legal Approval Tracking System (LATS)

Service purchase contracts (SPCs) are no longer submitted in hardcopy to the Office of Chief Counsel for legal approval because they will be processed electronically through the SAP system. For those contacts and legal documents that will continue to be submitted in hardcopy, OCC will continue to maintain a web-based system tracking (LATS), which replace the obsolete Statistical Analysis System (SAS).

The new Legal Approval Tracking System (LATS) was designed in consultation with users to improve the data entry process and to enhance accessibility for Department organizations that submit documents to OCC. To accomplish this purpose, the submitting organization will be responsible for the initial data entry identifying the document for which legal approval is being sought. Upon receipt of the paper submission, OCC will assume responsibility for tracking its progress through the LATS until final approval is obtained.

1. For substantive and administrative information about contracts, other than SAP-related matters, please contact the General Law Division support staff, who can be reached at (717) 787-5079 or 787-5299. They will be able to answer your questions about routing sheets, signature pages, the routing of contracts, and the status of contracts as shown in LATS (however, you should have personnel in your organization with access capability, so as to reduce the need to have status checks made at this end).

IMPORTANT: Please note that contracts and purchase orders entered into SAP Procurement must **not** be entered into LATS.

- 2. For technical questions only about LATS, including authorization to access it, please contact the Office of Chief Counsel's Information Technology Technician, at (717) 705-1273.
- 3. For all SAP-related questions, please direct them to the SAP help desk. Examples of the questions to be directed to the SAP help desk include routing, release strategies, appropriate supporting documentation and the use of paper versus SAP document.

Employees must be authorized to submit contracts and other documents for legal review. The OCC will provide those employees with access to the LATS.



Department of Tra	ansportation Con Legal Approval 1		thorization for User ID stem
Employee Name			
Employee Name:			
Bureau, Unit or Dist	rict:		
Address:			
Organization Code:	Telepho	ne Number:	
Email Address:			
applications. The	se applications incl Authorization Syst	ude, but are	all PennDOT Internet and intranet not limited to, SRS, Change Pool, Customer Care Center, and
If you already have ac	cess to one or mon	e of these sy:	stems, please check the following
	box to prevent	password co	nflicts:
Sign this form acknowle	edging the following	g:	
performance of	services or provis ery or performan	sion of good	ntract must occur before Is, equipment or supplies. ull execution can result in
Employee Signature			Date
Supervising Authority Signature	2		Date & Phone Number
Please submit the origin	nal of this form to:	Commonwe	alth Keystone Building 00 North Street
	D:		

LATS User's Guide

The Office of Chief Counsel has put in place a new system for tracking Department of Transportation contracts through the approval process.

Please note that with the implementation of SAP, **SPC's** are entered into the SAP system solely and do NOT need to be entered into <u>this</u> system. They have a separate abbreviated signature routing process.

If a contract is entered into the SAP system and is to be tracked through that system it does not need to also be entered into LATS.

ECMS contracts also do not need to be entered into the LATS system.

It is not necessary to have data entry access to <u>view</u> information in LATS – anyone with access to the Department's Intranet can view information captured by the system.

DATA ENTRY PROCESS

Materials Prepared - July 2004

Access the Legal Approval Tracking System (LATS) via the Internet:

http://dot.state.pa.us/penndot/ChiefCounsel/ccpcspc.nsf/fstMain?OpenFrameSet

Click on the word **LOGON** – A pop-up box will appear.

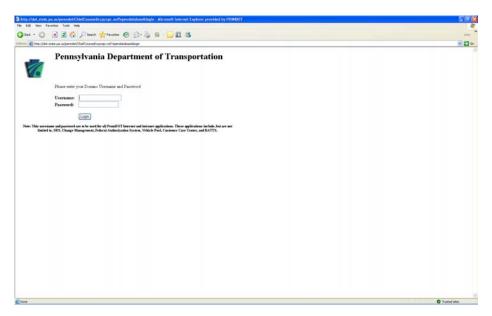
Enter your Outlook e-mail user name.

Your password will be the same as your user name.

Password expiration - passwords used to access LATS will NOT expire.

If you have problems logging on, please contact the Office of Chief Counsel's Information Technology Technician at (717) 705-1273

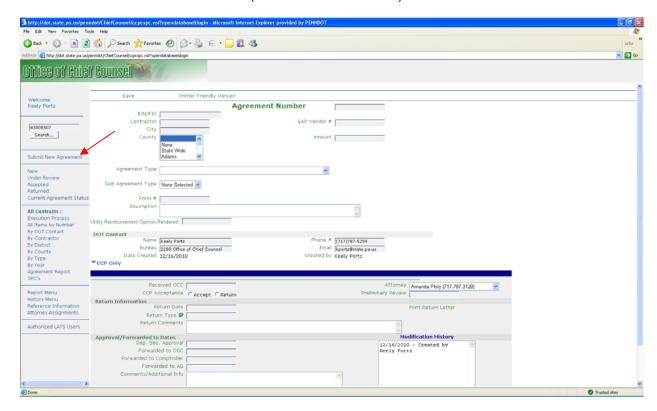
So, relax, take a deep breath and log in:



The MAIN MENU will open.

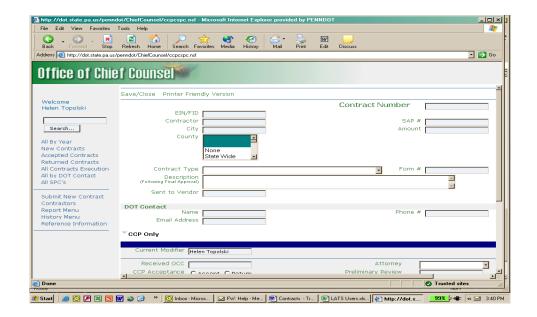


Select SUBMIT NEW AGREEMENT (from the lower section)



If your screen resolution is set so that you cannot see the full screen then:

Move your cursor over the line separating the left gray area and the right white information area – when you do so an arrow will appear which will permit you to drag the right white information area over to view the whole screen.



Data enter the following information (NOTE: the fields are NOT case sensitive – once the information is entered it will default to all upper case):

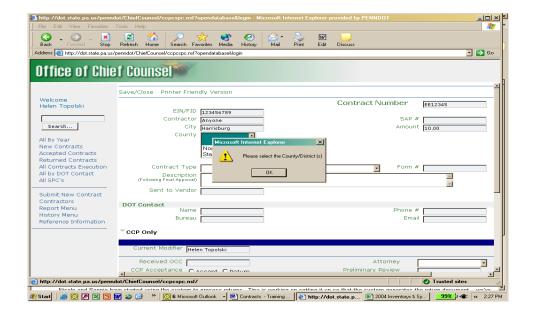
- Contract Number
 - o No hyphens, no slashes, no spaces
- EIN/FID
 - o Use hyphens where appropriate, no slashes, no spaces
- Contractor Name
 - o For consistency, do NOT use:
 - Apostrophes
 - Periods
 - Commas
 - Slashes (use dba instead of d/b/a, use ta instead of t/a, etc.)
 - "THE" if the name starts with "the", please put it at the end of the name, otherwise you'll need to sort through all the "the's" if you're looking for a contract by the name
- City (or Municipality)
 - o For contracts that encompass an entire county or multiple counties, it's not necessary to include the cities
- \$ Amount
 - o don't type the \$ sign the system will add it automatically
 - \circ use a comma to separate thousands from hundreds
 - o use a period to separate cents from dollars
- County
 - o use drop down list
 - o for multiple counties, hold your CTRL key down and click on each county.
- Contract Type (use drop down list)
- Description enter a detailed description of the contract
 - o no limit to the information that can be entered here
- DOT Contact Name (District or Bureau contact)
 - o This field will self-populate with your information
- DOT Contact Phone Number (include area code)
- DOT Contact E-mail Address

Once all the fields have been completed, click on the Save/Close button at the top of the screen:

Save/Close Printer Friendly Version



If you do not enter all the required information you will receive a message asking that the information be inserted:

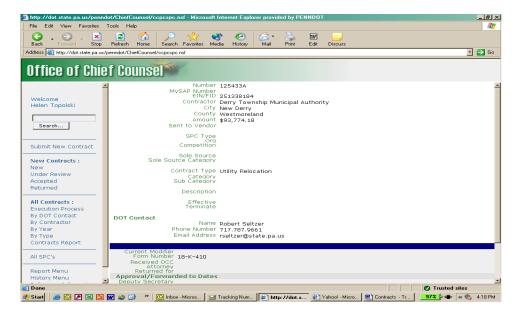


If it is a field that does not apply to your particular contract, type "n/a" or "none".

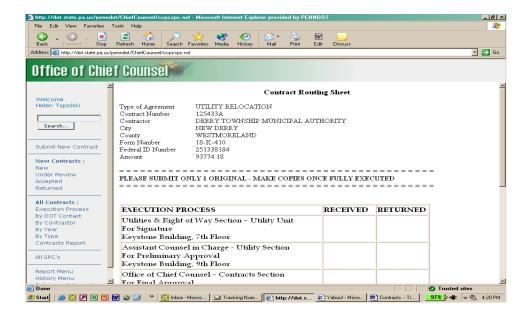
Once you've selected save, the screen will repopulate itself and you will have the options:

Printer Friendly Version Print Routing Letter

 Printer Friendly Version – to print a copy of the information data entered for your records



• Print Routing Letter – to print the signature routing sheet – this sheet will populate the upper portion with the contract information that you data-entered, the lower portion should have the approval process shown.



GENERAL INFORMATION

- Contracts MUST be entered into the LATS system **BEFORE** being submitted to the Office of Chief Counsel.
- Data enter all dates in the following format: MM/DD/YYYY. Note that it is not necessary to type the "/", once you put in the 2 digit month and day the system will automatically insert the slash.
- While searching, consider using * as a wild card. Example: if you wanted to see all the contracts for 050218, put an * at the end and it will show you the A B C D extensions.
- Contracts MUST be submitted to the Office of Chief Counsel with the routing sheet <u>on top</u>. If a contract is received without it, it will be returned.
- If needed, signature routing sheets can be found on the shared drive at: P:/PennDOT Shared/Contract Routing Sheets. If a routing sheet needs to be revised or added, please contact the Office of Chief Counsel at (717) 787-5079.
- A blank signature routing sheet will be stored on the shared drive at P:/PennDOT Shared/Contract Routing Sheets if needed for an unusual contract or situation.
- Use binder clips or staples, do not use paper clips. Paper clips pick up other documents or slip off.
- Please submit contracts separately, do not bundle them together as one.
- Do not submit contracts that have not been entered into this system.
- Frequent returns for correction will be documented and correction sought through appropriate channels.
- If a frequently used category needs to be added to a drop-down list, please contact the Office of Chief Counsel at (717)787-5079.
- Suggestions for improvement to this system are welcomed.

The Office of Chief Counsel reviews thousands of contracts each year. Following the above instructions will make it easier to quickly process these documents.

If you experience problems with this system, please contact the Office of Chief Counsel General Law staff: at (717) 787-5079.

Publication 371 Grade Crossing Manual

FIELD DESCRIPTIONS

NEW CONTRACTS:

New Under Review Accepted Returned

ALL CONTRACTS:

Execution Process By DOT Contact By Contractor By Year By Type Contracts Reports

ALL SPC'S: With the implementation of SAP all SPC's are no longer entered into the Office of Chief Counsel tracking system. SPC's will be tracked solely through SAP. The historical data regarding SPC's needed to be retained and so all SPC's prior to 7/1/2004 can be viewed here

Report Menu

History Menu

Reference Information

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APPENDIX F

SAFETY PROGRAM GUIDANCE

This appendix provides an overview of the Safety Program based on an excerpt from the Pennsylvania's 2013 Transportation Program Financial Guidance.

Appendix 7

Section 130 Highway-Rail Grade

Crossing Safety Program Guidance

BACKGROUND

Pennsylvania has received \$6.5-7.0M per year in Section 130 Highway-Rail Crossing Safety funding over the past few years, and is projected to receive ~\$6.5m per year for the foreseeable future. Until recently, these funds were distributed to the Metropolitan Planning Organizations (MPO)/Rural Planning Organizations (RPO) through a formula-based process. Project selection and funding were accomplished by the District Grade Crossing Engineers/Administrators (DGCE/A) in coordination with their Planning organizations, with assistance from the Central Office Grade Crossing Unit (CO GCU) as needed. Numerous concerns with this method were voiced by the Districts and CO staff over the years due to the fact that, in many cases, the funding available through distribution was so small that a full safety project could not be undertaken in many regions. There was also resistance to shift funds between MPOs/RPOs. These factors often left safety funds unutilized.

Early in 2013, the Federal Highway Administration (FHWA) began sharing with PennDOT the utilization rate of the Section 130 funding allocated to the state. This showed that Pennsylvania was using approximately 58% of its statewide allocation. Reviewing the data provided for all the states, showed that neighboring states who centrally managed their allocation had a much higher utilization rate (in excess of 90%, in NJ and OH), whereas states that had a decentralized management of the funds similar to PA (i.e. NY, MD) had similar utilization rates—in the 50 to 60% range.

In order to improve the state's utilization rate of the Section 130 funding, the program was shifted to the CO GCU. It is expected that the benefits of this transfer will include an opportunity to increase PA's utilization rate of the Section 130 funds, more efficiently address the top statewide crossing safety needs, address Rail corridor safety projects in regions that otherwise would not receive enough funding for the projects, and better leverage Railroad contributions to safety projects.

Guidance is provided in the Grade Crossing Manual, Publication 371, Chapter 3, *The Highway-Railroad Crossing Safety Project Process*.

FUNDING ALLOCATION

The goal of shifting management of the funds to the Central Office is to increase safety at highway-rail at-grade crossings by increasing the utilization rate of the funds distributed to the state to 100%. To help achieve this goal, the program allocation is expected to be split approximately as follows:

- 50% Statewide Priority List (highest hazard locations [WBAPS], emergent projects, corridor safety projects)
- 50% Projects with safety concerns not on the statewide list, local concerns, local Railroad concerns not reflected on WBAPS (i.e. near-miss history)

Appendix 7

Section 130 Highway-Rail Grade

Crossing Safety Program Guidance

PROGRAM GUIDELINES

Program implementation will be dependent on the federal obligations as communicated to the CO Grade Crossing staff by the Program Center. A two-year program of grade crossing safety projects will be developed by the CO GCU in coordination with the DGCE/As utilizing selection criteria developed by a workgroup of District and Central Office Grade Crossing staff. The program will be reviewed annually and any project or program savings as projects are accomplished will be transferred to other projects within the obligation window on a statewide basis. This annual review will take place as part of the annual Grade Crossing meeting of CO and District staff that takes place in the fall of each year. The review will be conducted by Department staff to review and approve the program, review progress of the program in odd years, and begin the process for the new program development. A four-year project window will be developed as part of this process to aid in the development of the following two-year program, as well as to assist in planning for the Railroads in order to take advantage of any funds they may be able to budget to contribute to and assist with the safety projects.

PROJECT SELECTION CRITERIA

Federal statute Title 23, Section 130 (e) (1) states "At least ½ of the funds authorized for and expended under this section shall be available for the installation of protective devices at railway-highway crossings." Publication 371 provides further guidance on funding restrictions for the Section 130 program. The development of prioritized grade crossing projects must meet the following criteria:

- 1. Funds may only be used on open, public, heavy rail (freight and passenger) crossings;
- 2. The crossing must be identified on the top 25% of the FRA Accident Prediction System statewide.
- 3. Crossing surface improvement (HTS) costs cannot exceed 20% of the total project costs.
- Corridor projects must include one project that falls within the top 25% of the FRA Accident Prediction System statewide.
- 5. Warning device upgrades (from existing warning devices) must provide a safety benefit and not just reflect a replacement in kind.
- 6. Funds <u>may</u> be used where a crossing falls within the terminus of a highway or bridge project if the crossing meets the top 25% criteria above.

Statewide Concerns (Statewide Priority)

The projects selection criteria for these safety improvement projects shall give priority to passive crossings (those without active warning devices), crossing closures, and larger multiple crossing safety upgrade programs in conjunction with specific Railroads that include projects under the previous two categories (corridor projects).

Appendix 7

Section 130 Highway-Rail Grade

Crossing Safety Program Guidance

Local Concerns (not on statewide priority list)

The projects selection criteria for these safety improvement projects shall take into consideration passive crossings not on the statewide priority list, but will also give priority to crossings with accident history (beyond what is shown in WBAPS), Railroad input regarding near miss experience and increased train traffic, District input on sight distance and other issues, as well as other local concerns expressed by the Planning Partners and other local officials. Other criteria used for these projects will include completion of corridor upgrades and warning signal upgrades (antiquated equipment, roundels, Constant Warning Time circuitry) deemed to be of local benefit but not on the statewide priority list.

PROGRAM DEVELOPMENT

The CO GCU will develop a prioritized list of approximately 20 projects of statewide concern utilizing the selection criteria outlined above. Each District will submit their top 10 prioritized projects to the CO GCU utilizing the selection criteria outlined for Local Concerns. The Central Office will then review each District's submission and conduct a preliminary prioritization of all the submissions based on a number of additional criteria, including:

- Adherence to selection criteria;
- Ability of Railroad to perform project within Program timeline;
- Contributions to project by Railroad, if any;
- Funding availability;
- A preliminary program of projects will be developed, and the statewide Grade Crossing Workgroup (consisting of CO GCU staff and a representative group from the DGCE/As) will convene to review the list of projects, prioritize this list, and finalize the draft program within the available funding.

The program is expected to consist of approximately 20-30 projects per year for an initial 2 year program. The program will be reviewed annually and refreshed during every two year program cycle. The finalized draft program will be reviewed with the Safety Engineer from the FHWA PA Division Office for approval prior to final program adoption.

PROGRAM TIMELINE AND EXECUTION

The timeline shown in Figure 1 outlines the milestone dates that should be met in order to develop each two year program. Project evaluation and selection should begin over a year before the Federal funds are available for obligation via the D-4232 process in October of each year. As outlined in Chapter 3 of Publication 371, the FHWA must approve the D-4232 before a PUC application can be filed and the project begun. Once the program has been approved and project implementation begun by the Districts, the progress of projects will be tracked by Central Office. Should projects fall behind during

Appendix 7 Section 130 Highway-Rail Grade Crossing Safety Program Guidance

implementation, other projects will be considered for advancement in order to ensure utilization of that year's available funding. Semi-annual reports will be generated and distributed to the Districts to aid in tracking project execution.

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APPENDIX G

COST ESTIMATING GUIDE AND CROSSING SURFACE PLAN SHEETS

This appendix includes two worksheets for estimating construction costs for improvements to highway-railroad at-grade crossings. In using these worksheets it is essential that the designer calculate all construction quantities and determine unit costs based on recent bids.

Also included within this appendix are two template crossing surface plan sheets, one for a high-type full depth concrete crossing surface and the other is for a rail-seal and asphalt crossing surface. These templates contain the typical general notes, plan view, crossing sections and area for a location map, thus requiring the user needing to only complete the project specific information such as length of crossing, limits of paving, location map, etc.

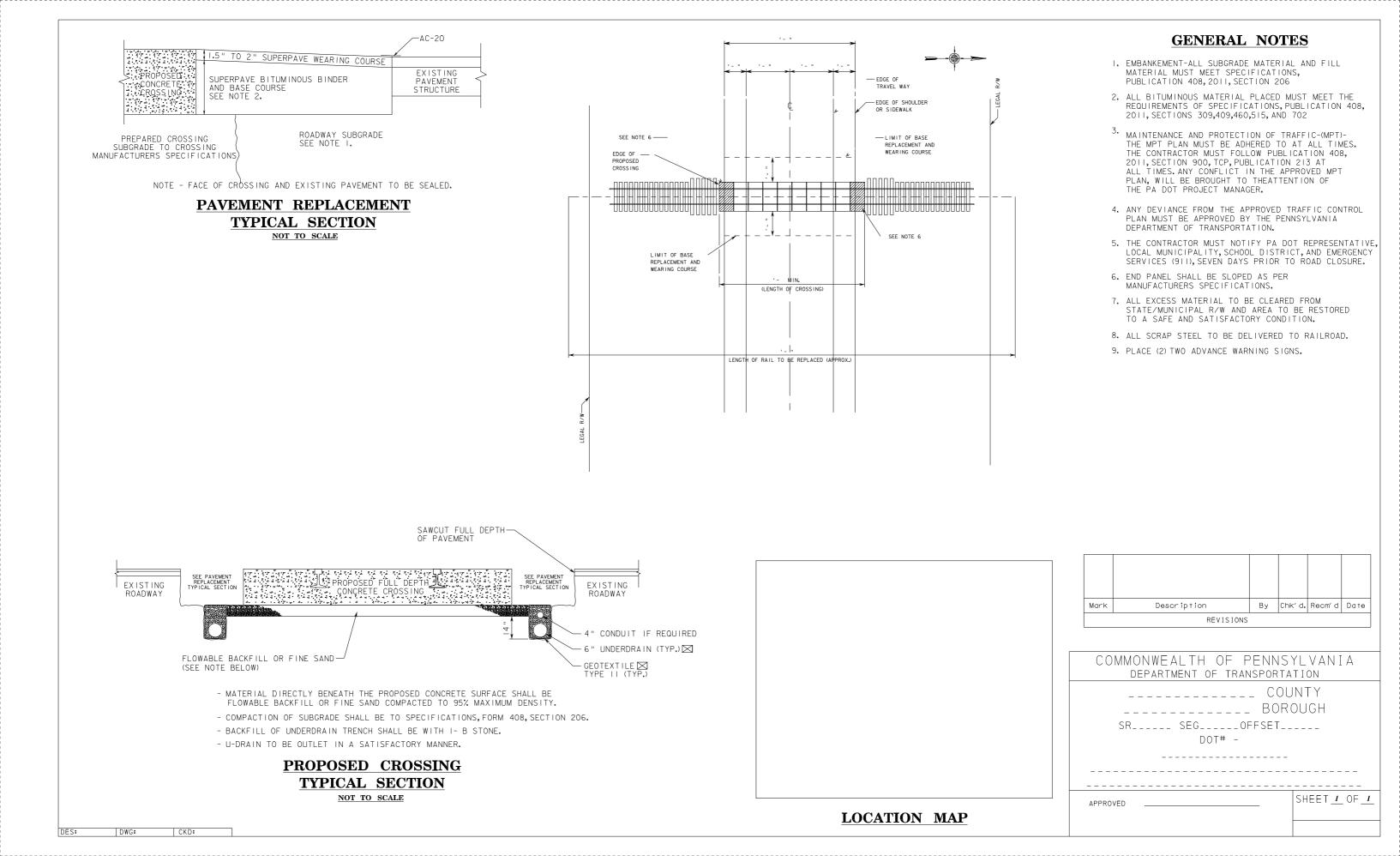
APPENDIX G CONCRETE CROSSING WORKSHEET

PROJECT INFORMATION			
COSRSEGOFFSET RAILROAD			
CONTACT PERSON			
PHONE NUMBER			
ADDRESS			
CROSSING MANUFACTURER			
		UNIT	
	ITEMS	PRICE	TOTAL COST
LENGTH OF CROSSING IN TRACK FEET	FT.		
CHANGE IN CROSSING ELEVATION IN INCHES	INCHES		
LENGTH MEASURED ON CL TO BE PAVED	FT.		
WIDTH TO BE PAVED			
DEPTH TO BE PAVED	INCHES		
INCLUDES FULL DEPTH BASE REPLACEMENT	S.Y.		\$0.00
IF TOTAL PAVEMENT IS UNDER 300 S.Y. THEN A LUMP SUM OF \$ 6000			ψ0.00
IS TO BE USED			
NO OF PAVEMENT MARKING REQUIRED	EACH		\$0.00
NO OF STOP BARS REQUIRED	EACH		\$0.00
NO OF ADVANCED WARNING SIGNS REQUIRED(WITH POSTS)	EACH		\$0.00
PAYMENT ITEMS			
DETOUR	L.S.		\$0.00
SEEDING	L.S.		\$0.00
			· · · · · · · · · · · · · · · · · · ·
EXAVATION OF EXISTING TIES AND RAIL	C.Y.		\$0.00
EXCAVATION OF EXISTING BALLAST AND IN PLACE MATERIAL AS NEEDED			φ0.00
U-DRAIN (PRICE IN PLACE)	FT.		\$0.00
CROSSING LENGTH + 20 FT * 2			
GEOTEXTILE (IN PLACE)	L.F.		\$0.00
FOUR TIMES CROSSING LENGTH			•
BALLAST (IN PLACE)	TON		\$0.00
1.55 TON/CY			
DI AGENERIT OF FINES (IN DI AGE)	2.7		Фо оо
PLACEMENT OF FINES (IN PLACE) CROSSING LENGTH TIMES PANEL WIDTH + 2 FT/9	S.Y.		\$0.00
CHOCCING ELITOTT TIMESTANCE WIGHT 121 1/6			
CONCRETE SURFACE			Фо оо
MATERIAL	FT.		\$0.00
TRACK	FT.		\$0.00
(2 TIMES THE CROSSING SURFACE PLUS 100 FT -25 FEET PER END/TRACK)			
NO OF REQUIRED WELDS	EACH		\$0.00
APPROACH TIES			
10FT APPROACH	EACH		\$0.00
15 PER APPROACH			
		SUBTOTAL	\$0.00
EXPENSES AND OVERHEAD	LS	TOTAL	\$0.00

PROJECT COST SHEET

		AAR#	
y			
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Off	feat		
PU	C #		
SP			
xisting:			
of work:			
	State Funds	;	Federal Funds
ign Costs, Surface			
ign Costs, Electronics			
<u> </u>	sure		
c. Cantilever			
Protection of Traffic			
Sub-Totals	\$0		\$0
GRAND TOTAL		\$0	
			
	of work: gn Costs, Surface gn Costs, Electronics ests, SurfaceLF X \$_ests, Electronics: a. Lights, Bells & Enclo b. Automatic Gates c. Cantilever Protection of Traffic	Offset PUC # SPN xisting: of work: State Funds gn Costs, Surface gn Costs, Electronics sts, SurfaceLF X \$	Offset PUC # SPN xisting: of work: State Funds gn Costs, Surface gn Costs, Electronics sts, Surface LF X \$ sets, Surface LF X \$ sets, Surface LF X \$ sets, Cantilever Protection of Traffic

NOTE: THIS WORKSHEET IS FOR ESTIMATING PURPOSES ONLY.



APPENDIX H

STANDARDS AND REFERENCES

Design Standards: The following design standards are referenced in this manual.

State Publication 13M, Design Manual Part 2, *Highway Design*, Chapter 2, Section 2.20, Part B, *Railroad-Highway Grade Crossings*.

AASHTO American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 2001.

FHWA *Manual on Uniform Traffic Control Devices, MUTCD*, Part VIII, Traffic Control Systems for Railroad-Highway Grade Crossings.

Railroad American Railway Engineering and Maintenance Association (AREMA) *Manual for Railway Engineering*, Chapter 5, Guidelines for the Construction or Reconstruction of Highway-Railroad Grade Crossings.

Reference Materials: This appendix identifies sources of information referenced in this manual.

- 1. Applicability of Prevailing Wage Rates and How it Impacts Section 130 Projects and Highway/Bridge Projects Involving Railroads.
- 2. Railroad Vertical and Horizontal Clearances
- 3. Code of Federal Regulations Title 23—Highways, Chapter I--Federal Highway Administration, Department of Transportation, Part 140—Reimbursements, Subpart I--Reimbursement for Railroad Work, Sections 140.900-140.922
- 4. Code of Federal Regulations Title 23—Highways, Chapter I--Federal Highway Administration, Department of Transportation, Part 635—Construction and Maintenance, Subpart C--Physical Construction Authorization, Sections 635.301-635-309
- 5. Excerpt from Moving Ahead for Progress in the 21st Century Act (MAP-21), Section 1518
- 6. Code of Federal Regulations Title 23—Highways, Chapter I--Federal Highway Administration, Department of Transportation, Part 635-Construction and Maintenance, Subpart D, Section 635.410
- 7. Code of Federal Regulations Title 23—Highways, Chapter I--Federal Highway Administration, Department of Transportation, Part 646—Railroads, Subpart A—Railroad-Highway Insurance Protection, Sections 646.101-646.111
- 8. Code of Federal Regulations Title 23—Highways, Chapter I--Federal Highway Administration, Department of Transportation, Part 646—Railroads, Subpart B—Railroad –Highway Projects, Sections 646.200-646.220
- 9. U.S. Code Title 23—Highways, Chapter 1--Federal-Aid Highways, Subchapter I--General Provisions, Section 130
- 10. U.S. Code Title 23-Highways, Chapter 3-General Provisions, Section 313
- 11. Federal Highway Administration Letter <u>ACTION</u>: Highway Safety Improvement Program Annual Reports, May 11, 2010
- 12. Federal Railroad Administration—Assignment of Crossing Inventory Numbers, March 25, 2009
- 13. Federal Railroad Administration—U.S. DOT National Highway-Rail Crossing Inventory—Policy, Procedures and Instructions for States and Railroads, August 2007

Applicability of Prevailing Wage Rates and How it Impacts Section 130 Projects and Highway/Bridge Projects Involving Railroads

When do they apply?

- 1. When the Railroad contracts out any portion of work and is seeking reimbursement through PennDOT; and
- 2. When the total contract amount between PennDOT and the Railroad is greater than \$25,000 (meaning that if the project agreement amount is say \$100,000, but the Railroad only plans to contract out \$20,000; applicable state prevailing wage rates would apply to the portion being contracted out); and,
- 3. When the contract is for the construction phase of the project only.

When don't they apply?

When the Railroad will be doing 100% of the work with its own forces and contracting out 0% of the work. The funding source for reimbursement to the Railroad has no impact (money "touched" by the state).

How does this impact Section 130 Projects?

Although the construction phase for Section 130 projects is funded with Federal funds, the payments made to Railroads for completed construction work are first reimbursed with state funds. PennDOT then seeks reimbursement from FHWA. The State Prevailing Wage Rates apply due to the initial use of state funds.

How does it impact Highway/Bridge projects involving Railroads (ex: flagging costs)?

PennDOT's highway or bridge projects use a combination of federal, state, and local funds. If the project has state funding involved and the Railroad is contracting any portion of the work, the Railroad would be subject to prevailing wage rates. If the project does not involve state funding, but uses federal and/or local funds, the Railroad is subject to prevailing wages if any portion of the work is contracted. Again, this is because PennDOT initially makes payments to the Railroad, and then seeks reimbursement from FHWA.

How does the Railroad determine whether or not prevailing wage rates are applicable?

The Railroad is responsible for determining if state prevailing wage rates are applicable, not PennDOT. The following is language approved by the PA Department of Labor & Industry which is included in all Railroad reimbursement agreements between PennDOT and the Railroad.

Work performed under this agreement by any worker for any contractor or subcontractor for the RAILROAD may be subject to the Pennsylvania Prevailing Wage Act, Act of August 15, 1961, P.L. 987, as amended, 43 P.S. §§ 165-1 - 165-17; 34 Pa. Code §§ 9.101-9.112. RAILROAD shall be responsible for obtaining correct guidance on whether or not prevailing wages are applicable to the work performed under this agreement. If prevailing wages are applicable, RAILROAD shall ensure that prevailing wages are included for all covered work in the specification bid proposal used to solicit bids to do the contracted work and the contracts for the project. If applicable, all contractors and subcontractors employing workers under this agreement shall comply with the provisions of the Pennsylvania Prevailing Wage Act and its regulations. This shall include the required contract provisions found in 34 Pa. Code § 9.103. RAILROAD can obtain prevailing wage rates and information about compliance through the following:

Bureau of Labor Law Compliance
1301 Labor & Industry Building
Seventh & Forster Streets
Harrisburg, PA 17120-0019
717-787-4671
www.dli.state.pa.us
(keywords "prevailing wage/apprenticeship" then "prevailing wage determination request")

RAILROAD shall be responsible to maintain the documentation, particularly certified payrolls, showing compliance with the Prevailing Wage Act.

What does this all mean?

Any time the Railroads will be contracting out <u>any</u> portion of work for which they will be seeking reimbursement through PennDOT, the Railroads will be responsible for ensuring that the applicable state prevailing wage rates are applied.

Railroad Vertical and Horizontal Clearances

(Structures carrying highways over Railroad tracks)

Public Utility Commission (PUC) Minimum Clearance Requirements:

Vertical: 22'-0" (measured from top of rail to tight point)

Horizontal: 12'-0" (measured from center of outside tracks to obstruction)

PennDOT Minimum Clearance Requirements, per this Manual and Publication 10C, Design Manual Part 1C, Transportation Engineering Procedures, Section 4.11D:

Vertical: 23'-0" (measured from top of rail to tight point)

24'-3" for electrified Railroad

Horizontal: 12'-6" (both sides) measured from the center of the outside track to the face of abutment or

pier. An 18'-0" lateral clearance on one side for off-track equipment shall be provided if

requested by the Railroad.

Class 1 (major) Railroads – may require additional lateral clearances in excess of the above depending on the needs for drainage ditches and roadway for off-track equipment.

An agreement on the horizontal and vertical clearances shall be reached with the operating Railroad, or determination from the PUC shall be secured, prior to submitting for TS&L approval.

- **A.** With all PennDOT projects involving Railroad facilities the District Grade Crossing Engineer/Administrator (DGCE/A) and/or Railroad would be responsible for the following:
 - 1. Authorize preliminary engineering for the Railroad.
 - 2. The DGCE/A is to contact the Railroad within two days after PennDOT has conducted an Engineering and Environmental Scoping Filed View (E&ESFV) to schedule a meeting. This meeting should occur within two weeks of the E&ESFV.
 - 3. DGCE/A would be responsible for submission of D-4279 and D-4279-A form to the Railroad for completion and resubmission back to PennDOT.
 - 4. The railroad would be responsible for indicating on the D-4279 form their required minimum vertical and horizontal clearances.
 - 5. The DGCE/A needs to obtain written concurrence with the proposed minimum clearances from the railroad.
- **B.** If the horizontal/vertical clearances proposed are <u>less</u> than Publication 10C, Design Manual Part 1C, Transportation Engineering Procedures, Section 4.11D requirements, but <u>greater</u> than the PUC clearance requirements we need to complete the following:
 - 1. Prepare preliminary plans reflecting proposed horizontal and vertical clearances (existing and proposed) for submission to the Railroad. The plans need to denote the vertical clearance measurements for all tracks and the horizontal clearances from centerline of tracks closest to the obstruction.
 - 2. Prepare supplemental written documentation outlining the need for reduction in PennDOT clearance requirements for submission to the Railroad.
 - 3. Obtain a signed written concurrence letter from the Railroad concurring with the proposed clearances for the project.
 - 4. Proceed with project and file necessary PUC application, with supporting documents, as outlined in this manual.
 - 5. Conduct PUC Field Conference and obtain PUC Order.
- **C.** If the horizontal/vertical clearances proposed are <u>less</u> than the PUC requirements we need to complete the following:

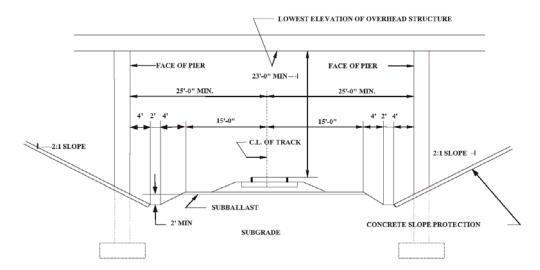
- 1. Same as B.1 through B.3 above. As per Chapter 2, Section 2.02 B and Chapter 4, Section 4.03 C.3, to obtain PUC clearance exemption approval, the PUC will accept a letter from the Railroad consenting to the exemption from the PUC minimum clearances. This letter must be attached to the Department's Application as an exhibit.
- 2. Conduct PUC Field Conference and obtain PUC Order.

CSX Transportation Criteria for Overhead Bridges Horizontal and Vertical Clearances

The following information pertaining to horizontal and vertical clearances was obtained through CSX Transportation's "Public Project Information" for Construction and Improvement Projects that may involve the Railroad, last revised on January 6, 2011.

CLEARANCES:

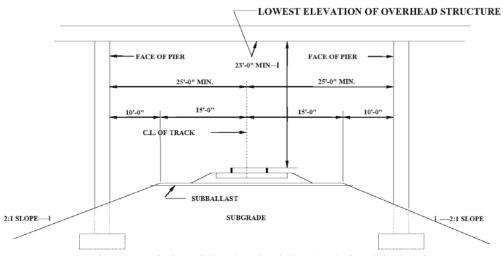
- **A.** Horizontal Clearance: Standard horizontal clearance from centerline of the track to the face of the pier or abutment shall typically be 25'-0" or greater, but never less than 18'-0", measured perpendicular to the track. Provisions for future tracks, access roads, other CSXT facilities, and drainage may require the minimum clearance be increased or use of multi-span structures. The toe of footings shall not be closer than 11'-0" from centerline of the track to provide adequate room for sheeting.
- **B.** Vertical Clearance: A standard vertical clearance of 23'-0" shall be provided, measured from top of high rail to lowest point of structure in the horizontal clearance area which extends 6'-0" either side of the centerline of track.



CLEARANCES REQUIRED FOR OVERHEAD STRUCTURES TYPICAL ROADBED SECTION WITH STANDARD DITCHES

NOTE: FOR MULTIPLE TRACKS, STANDARD
TRACK CENTERS IS 15'-0". AN ADDITIONAL 8'-0"
WIDE ACCESS ROAD MAY BE REQUIRED TO
PROVIDE 33'-0" MINIMUM DISTANCE FROM
CENTERLINE OF TRACK TO FACE OF PIER.

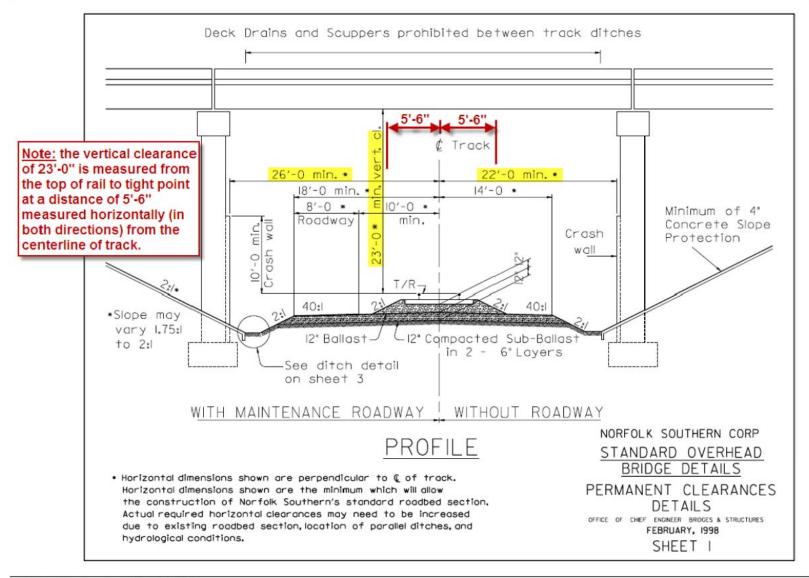




CLEARANCES REQUIRED FOR OVERHEAD STRUCTURES TYPICAL SECTION FOR ROADBED IN FILL

(WHERE NO DEFINED DITCHES ARE NEEDED)





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23 CFR 140.900-140.922 - Reimbursement for Railroad Work

§ 140.807

23 CFR Ch. I (4-1-11 Edition)

organizations, construction contractors (force account work), and organizations engaged in right-of-way studies, planning, research, or related activities where the terms of a proposal or contract (including lump sum) necessitate an audit. Construction contracts (except force account work) are not included in this group.

§140.807 Reimbursable costs.

- (a) Federal funds may be used to reimburse an SHA for the following types of project related audit costs:
- (1) Salaries, wages, and related costs paid to public employees in accordance with subpart G of this part,
- (2) Payments by the SHA to any Federal, State, or local public agency audit organization, and
- (3) Payments by the SHA to licensed or certified public accounting firms.
- (b) Audit costs incurred by an SHA shall be equitably distributed to all benefiting parties. The portion of these costs allocated to the Federal-Aid Highway Program which are not directly related to a specific project or projects shall be equitably distributed, as a minimum, to the major FHWA funding categories in that State.

Subpart I—Reimbursement for Railroad Work

SOURCE: 40 FR 16057, Apr. 9, 1975, unless otherwise noted.

§140.900 Purpose.

The purpose of this subpart is to prescribe policies and procedures on reimbursement to the States for railroad work done on projects undertaken pursuant to the provisions of 23 CFR part 646, subpart B.

§140.902 Applicability.

This subpart, and all references hereinafter made to "projects," applies to Federal-aid projects involving railroad facilities, including projects for the elimination of hazards of railroad-highway crossings, and other projects which use railroad properties or which involve adjustments required by highway construction to either railroad facilities or facilities that are jointly owned or used by railroad and utility companies.

§140.904 Reimbursement basis.

- (a) General. On projects involving the elimination of hazards of railroad-highway crossings, and on other projects where a railroad company is not obligated to move or to change its facilities at its own expense, reimbursement will be made for the costs incurred by the State in making changes to railroad facilities as required in connection with a Federal-aid highway project, in accordance with the provisions of this subpart.
- (b) *Eligibility*. To be eligible, the costs must be:
- (1) For work which is included in an approved statewide transportation improvement program.
- (2) Incurred subsequent to the date of authorization by the Federal Highway Administration (FHWA),
- (3) Incurred in accordance with the provisions of 23 CFR, part 646, subpart B, and
- (4) Properly attributable to the project.
- [40 FR 16057, Apr. 9, 1975, as amended at 53 FR 18276, May 23, 1988; 62 FR 45328, Aug. 27, 1997]

§140.906 Labor costs.

- (a) General. (1) Salaries and wages, at actual or average rates, and related expenses paid by a company to individuals, for the time they are working on the project, are reimbursable when supported by adequate records. This shall include labor costs associated with preliminary engineering, construction engineering, right-of-way, and force account construction.
- (2) Salaries and expenses paid to individuals who are normally part of the overhead organization of the company may be reimbursed for the time they are working directly on the project, such as for accounting and bill preparation, when supported by adequate records and when the work performed by such individuals is essential to the project and could not have been accomplished as economically by employees outside the overhead organization.
- (3) Amounts paid to engineers, architects and others for services directly related to projects may be reimbursed.

§ 140.908

- (b) Labor surcharges. (1) Labor surcharges include worker compensation insurance, public liability and property damage insurance, and such fringe benefits as the company has established for the benefit of its employees. The cost of labor surcharges will be reimbursed at actual cost to the company or a company may, at its option, use an additive rate or other similar technique in lieu of actual costs provided that (i) the rate is based on historical cost data of the company, (ii) such rate is representative of actual costs incurred, (iii) the rate is adjusted at least annually taking into consideration known anticipated changes and correcting for any over or under applied costs for the preceding period, and (iv) the rate is approved by the SHA and FHWA.
- (2) Where the company is a self-insurer there may be reimbursement:
- (i) At experience rates properly developed from actual costs, not to exceed the rates of a regular insurance company for the class of employment covered, or
- (ii) At the option of the company, a fixed rate of 8 percent of direct labor costs for worker compensation and public liability and property damage insurance together.

[40 FR 16057, Apr. 9, 1975, as amended at 47 FR 33955, Aug. 5, 1982; 56 FR 56578, Nov. 6, 1991]

§140.907 Overhead and indirect construction costs.

- (a) A State may elect to reimburse the railroad company for its overhead and indirect construction costs.
- (b) The FHWA will participate in these costs provided that:
- (1) The costs are distributed to all applicable work orders and other functions on an equitable and uniform basis in accordance with generally accepted accounting principles;
- (2) The costs included in the distribution are limited to costs actually incurred by the railroad;
- (3) The costs are eligible in accordance with the Federal Acquisition Regulation (48 CFR), part 31, Contract Cost Principles and Procedures, relating to contracts with commercial organizations:

- (4) The costs are considered reasonable:
- (5) Records are readily available at a single location which adequately support the costs included in the distribution, the method used for distributing the costs, and the basis for determining additive rates:
- (6) The rates are adjusted at least annually taking into consideration any overrecovery or underrecovery of costs; and
- (7) The railroad maintains written procedures which assure proper control and distribution of the overhead and indirect construction costs.

[53 FR 18276, May 23, 1988]

§140.908 Materials and supplies.

- (a) Procurement. Materials and supplies, if available, are to be furnished from company stock, except they may be obtained from other sources near the project site when available at less cost. Where not available from company stock, they may be purchased either under competitive bids or existing continuing contracts, under which the lowest available prices are developed. Minor quantities and proprietary products are excluded from these requirements. The company shall not be required to change its existing standards for materials used in permanent changes to its facilities.
- (b) Costs. (1) Materials and supplies furnished from company stock shall be billed at current stock price of such new or used material at time of issue.
- (2) Materials and supplies not furnished from company stock shall be billed at actual costs to the company delivered to the point of entry on the railroad company's line nearest the source of procurement.
- (3) A reasonable cost of plant inspection and testing may be included in the costs of materials and supplies where such expense has been incurred. The computation of actual costs of materials and supplies shall include the deduction of all offered discounts, rebates and allowances.
- (c) Materials recovered. (1) Materials recovered from temporary use and accepted for reuse by the company shall be credited to the project at prices charged to the job, less a consideration for loss in service life at 10 percent for

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rails, angle bars, tie plates and metal turnout materials and 15 percent for all other materials. Materials recovered from the permanent facility of the company that are accepted by the company for return to stock shall be credited to the project at current stock prices of such used material.

- (2) Materials recovered and not accepted for reuse by the company, if determined to have a net sale value, shall be sold by the State or railroad following an opportunity for State inspection and appropriate solicitation for bids, to the highest bidder; or if the company practices a system of periodic disposal by sale, credit to the project shall be at the going prices supported by the records of the company. Where applicable, credit for materials recovered from the permanent facility in length or quantities in excess of that being placed should be reduced to reflect any increased cost of railroad operation resulting from the adjustment.
- (d) Removal costs. Federal participation in the costs of removing, salvaging, transporting, and handling recovered materials will be limited to the value of materials recovered, except where FHWA approves additional measures for restoration of affected areas as required by the physical construction or by reason of safety or aesthetics.
- (e) Handling costs. The actual and direct costs of handling and loading out of materials and supplies at and from company stores or material yards and of unloading and handling of recovered materials accepted by the company at its stores or material yards, are reimbursable. At the option of the company, 5 percent of the amounts billed for the materials and supplies which are issued from company stores and material yards will be reimbursable in lieu of actual costs.
- (f) Credit losses. On projects where a company actually suffers loss by application of credits, the company shall have the opportunity of submitting a detailed statement of such loss as a basis for further adjustment.

§140.910 Equipment.

(a) Company owned equipment. Cost of company-owned equipment may be reimbursed for the average or actual cost

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of operation, light and running repairs, and depreciation, or at industry rates representative of actual costs as agreed to by the railroad, SHA, and FHWA. Reimbursement for company-owned vehicles may be made at average or actual costs or at rates of recorded use per mile which are representative of actual costs and agreed to by the company, SHA, and FHWA.

(b) Other equipment. Where company owned equipment is not available, reimbursement will be limited to the amount of rental paid (1) to the lowest qualified bidder, (2) under existing continuing contracts at reasonable cost, or (3) as an exception, by negotiation where (b) (1) and (2) are impractical due to project location or schedule.

[40 FR 16057, Apr. 9, 1975, as amended at 47 FR 33955, Aug. 5, 1982]

§140.912 Transportation.

- (a) Employees. The company's cost of necessary employee transportation and subsistence directly attributable to the project, which is consistent with overable able.
- (b) Materials, supplies, and equipment. The most economical movement of materials, supplies and equipment to the project and necessary return to storage, including the associated costs of loading and unloading equipment, is reimbursable. Transportation by a railroad company over its own lines in a revenue train is reimbursable at average or actual costs, at rates which are representative of actual costs, or at rates which the company charges its customers for similar shipments provided the rate structure is documented and available to the public. These rates are to be agreed to by the company, SHA, and FHWA. No charge will be made for transportation by work train other than the operating expenses of the work train. When it is more practicable or more economical to move equipment on its own wheels, reimbursement may be made at average or actual costs or at rates which are representative of actual costs and are agreed to by the railroad, SHA, and FHWA.

[40 FR 16057, Apr. 9, 1975, as amended at 47 FR 33955, Aug. 5, 1982]

§140.914 Credits for improvements.

- (a) Credit shall be made to the project for additions or improvements which provide for higher quality or increased service capability of the operating facility and which are provided solely for the benefit of the company.
- (b) Where buildings and other depreciable structures of a company which are integral to operation of rail traffic must be replaced, credit shall be made to the project as set forth in 23 CFR 646.216(c)(2).
- (c) No credit is required for additions or improvements which are:
- (1) Necessitated by the requirements of the highway project.
- (2) Replacements which, although not identical, are of equivalent standard.
- (3) Replacements of devices or materials no longer regularly manufactured and the next highest grade or size is used.
- (4) Required by governmental and appropriate regulatory commission requirements.

§140.916 Protection.

The cost of essential protective services which, in the opinion of a railroad company, are required to ensure safety to railroad operations during certain periods of the construction of a project, is reimbursable provided an item for such services is incorporated in the State-railroad agreement or in a work order issued by the State and approved by FHWA.

§140.918 Maintenance and extended construction.

The cost of maintenance and extended construction is reimbursable to the extent provided for in 23 CFR 646.216(f)(4), and where included in the State-Railroad Agreement or otherwise approved by the State and FHWA.

§140.920 Lump sum payments.

Where approved by FHWA, pursuant to 23 CFR 646.216(d)(3), reimbursement may be made as a lump sum payment, in lieu of actual costs.

§140.922 Billings.

(a) After the executed State-Railroad Agreement has been approved by FHWA, the company may be reim-

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bursed on progress billings of incurred costs. Costs for materials stockpiled at the project site or specifically purchased and delivered to the company for use on the project may be reimbursed on progress billings following approval of the executed State-Railroad Agreement or the written agreement under 23 CFR 646.218(c).

- (b) The company shall provide one final and complete billing of all incurred costs, or of the agreed-to lump sum, within one year following completion of the reimbursable railroad work. Otherwise, previous payments to the company may be considered final, except as agreed to between the SHA and the railroad.
- (c) All company cost records and accounts relating to the project are subject to audit by representatives of the State and/or the Federal Government for a period of three years from the date final payment has been received by the company.
- (d) A railroad company must advise the State promptly of any outstanding obligation of the State's contractor for services furnished by the company such as protective services.

[40 FR 16057, Apr. 9, 1975, as amended at 40 FR 29712, July 15, 1975; 62 FR 45328, Aug. 27, 1997]

PART 172—ADMINISTRATION OF ENGINEERING AND DESIGN RE-LATED SERVICE CONTRACTS

Sec.

172.1 Purpose and applicability.

172.3 Definitions.

172.5 Methods of procurement.

172.7 Audits.

172.9 Approvals.

AUTHORITY: 23 U.S.C. 112, 114(a), 302, 315, and 402; 40 U.S.C. 541 et seq.; sec.1205(a), Pub. L. 105-178, 112 Stat. 107 (1998); sec. 307, Pub. L. 104-59, 109 Stat. 568 (1995); sec. 1060, Pub. L. 102-240, 105 Stat. 1914, 2003 (1991); 48 CFR 12 and 31; 49 CFR 1.48(b) and 18.

SOURCE: 67 FR 40155, June 12, 2002, unless otherwise noted.

§172.1 Purpose and applicability.

This part prescribes policies and procedures for the administration of engineering and design related service contracts under 23 U.S.C. 112 as supplemented by the common grant rule, 49

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rest area, weigh-station, movable bridge, or other highway appurtenance, provided such installation cannot feasibly be done as incidental to a major installation project such as an extensive highway lighting system.

[52 FR 45173, Nov. 25, 1987]

Subpart C—Physical Construction Authorization

SOURCE: 40 FR 17251, Apr. 18, 1975, unless otherwise noted.

§635.301 Purpose.

To prescribe the policies and procedures under which a State transportation department may be authorized to advance a Federal-aid highway project to the physical construction stage.

§635.303 Applicability.

The provisions of this subpart are applicable to all Federal-aid highway construction projects.

[69 FR 7119, Feb. 13, 2004]

§635.305 Physical construction.

For purposes of this subpart the physical construction of a project is considered to consist of the actual construction of the highway itself with its appurtenant facilities. It includes any removal, adjustment or demolition of buildings or major obstructions, and utility or railroad work that is a part of the contract for the physical construction.

§635.307 Coordination.

- (a) The right-of-way clearance, utility, and railroad work are to be so coordinated with the physical construction that no unnecessary delay or cost for the physical construction will occur.
- (b) All right-of-way clearance, utility, and railroad work performed separately from the contract for the physical construction of the project are to be accomplished in accordance with provisions of the following:
 - (1) 23 CFR part 140, subpart I;
 - (2) 23 CFR part 646, subpart B;
 - (3) 23 CFR 710.403; and

(4) 23 CFR part 645, subpart A.

[40 FR 17251, Apr. 18, 1975, as amended at 40 FR 25585, June 17, 1975; 64 FR 71289, Dec. 21, 1999]

§635.309 Authorization.

Authorization to advertise the physical construction for bids or to proceed with force account construction thereof shall normally be issued as soon as, but not until, all of the following conditions have been met:

- (a) The plans, specifications, and estimates (PS&E) therefor have been approved.
- (b) A statement is received from the State, either separately or combined with the information required by §635.309(c), that either all right-of-way clearance, utility, and railroad work has been completed or that all necessary arrangements have been made for it to be undertaken and completed as required for proper coordination with the physical construction schedules. Where it is determined that the completion of such work in advance of the highway construction is not feasible or practical due to economy, special operational problems and the like, there shall be appropriate notification provided in the bid proposals identifying the right-of-way clearance, utility, and railroad work which is to be underway concurrently with the highway construction.
- (c) A statement is received from the State certifying that all individuals and families have been relocated to decent, safe and sanitary housing or the State has made available to relocatees adequate replacement housing in accordance with the provisions of the current Federal Highway Administration (FHWA) directive(s) covering the administration of the Highway Relocation Assistance Program and that one of the following has application:
- (1) All necessary rights-of-way, including control of access rights when pertinent, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way but all occupants have vacated the lands and improvements and the State has physical possession and the right

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to remove, salvage, or demolish these improvements and enter on all land.

- (2) Although all necessary rights-of-way have not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Trial or appeal of some parcels may be pending in court and on other parcels full legal possession has not been obtained but right of entry has been obtained, the occupants of all lands and improvements have vacated and the State has physical possession and right to remove, salvage, or demolish these improvements.
- (3) The acquisition or right of occupancy and use of a few remaining parcels is not complete, but all occupants of the residences on such parcels have had replacement housing made available to them in accordance with 49 CFR 24.204. The State may request authorization on this basis only in very unusual circumstances. This exception must never become the rule. Under these circumstances, advertisement for bids or force-account work may be authorized if FHWA finds that it will be in the public interest. The physical construction may then also proceed, but the State shall ensure that occupants of residences, businesses, farms, or non-profit organizations who have not yet moved from the right-of-way are protected against unnecessary inconvenience and disproportionate injury or any action coercive in nature. When the State requests authorization to advertise for bids and to proceed with physical construction where acquisition or right of occupancy and use of a few parcels has not been obtained, full explanation and reasons therefor including identification of each such parcel will be set forth in the State's request along with a realistic date when physical occupancy and use is anticipated as well as substantiation that such date is realistic. Appropriate notification shall be provided in the bid proposals identifying all locations where right of occupancy and use has not been obtained.
- (d) The State transportation department in accord with 23 CFR 771.111(h), has submitted public hearing transcripts, certifications and reports pursuant to 23 U.S.C. 128.

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- (e) An affirmative finding of cost effectiveness or that an emergency exists has been made as required by 23 U.S.C. 112, when construction by some method other than contract based on competitive bidding is contemplated.
- (f) Minimum wage rates determined by the Department of Labor in accordance with the provisions of 23 U.S.C. 113, are in effect and will not expire before the end of the period within which it can reasonably be expected that the contract will be awarded.
- (g) A statement has been received that right-of-way has been acquired or will be acquired in accordance with the current FHWA directive(s) covering the acquisition of real property or that acquisition of right-of-way is not required.
- (h) A statement has been received that the steps relative to relocation advisory assistance and payments as required by the current FHWA directive(s) covering the administration of the Highway Relocation Assistance Program have been taken, or that they are not required.
- (i) The FHWA Division Administrator has determined that appropriate measures have been included in the PS&E in keeping with approved guidelines, for minimizing possible soil erosion and water pollution as a result of highway construction operations.
- (j) The FHWA Division Administrator has determined that requirements of 23 CFR part 771 have been fulfilled and appropriate measures have been included in the PS&E to ensure that conditions and commitments made in the development of the project to mitigate environmental harm will be met.
- (k) Where utility facilities are to use and occupy the right-of-way, the State has demonstrated to the satisfaction of the FHWA Division Administrator that the provisions of 23 CFR 645.119(b) have been fulfilled.
- (1) The FHWA Division Administrator has verified the fact that adequate replacement housing is in place and has been made available to all affected persons.
- (m) Where applicable, areawide agency review has been accomplished as required by 42 U.S.C. 3334 and 4231 through 4233.

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- (n) The FHWA Division Administrator has determined that the PS&E provide for the erection of only those information signs and traffic control devices that conform to the standards developed by the Secretary of Transportation or mandates of Federal law and do not include promotional or other informational signs regarding such matters as identification of public officials, contractors, organizational affiliations, and related logos and symbols
- (o) The FHWA Division Administrator has determined that, where applicable, provisions are included in the PS&E that require the erection of funding source signs, for the life of the construction project, in accordance with section 154 of the Surface Transportation and Uniform Relocation Assistance Act of 1987.
- (p) In the case of a design-build project, the following certification requirements apply:
- (1) The FHWA's project authorization for final design and physical construction will not be issued until the following conditions have been met:
- (i) All projects must conform with the statewide and metropolitan transportation planning requirements (23 CFR part 450).
- (ii) All projects in air quality nonattainment and maintenance areas must meet all transportation conformity requirements (40 CFR parts 51 and 93).
- (iii) The NEPA review process has been concluded. (See 23 CFR 636.109).
- (iv) The Request for Proposals document has been approved.
- (v) A statement is received from the STD that either all right-of-way, utility, and railroad work has been completed or that all necessary arrangements will be made for the completion of right of way, utility, and railroad work.
- (vi) If the STD elects to include right-of-way, utility, and/or railroad services as part of the design-builder's scope of work, then the Request for Proposals document must include:
- (A) A statement concerning scope and current status of the required services, and
- (B) A statement which requires compliance with the Uniform Relocation

and Real Property Acquisition Policies Act of 1970, as amended, and 23 CFR part 710.

- (2) During a conformity lapse, a design-build project (including right-of-way acquisition activities) may continue if, prior to the conformity lapse, the NEPA process was completed and the project has not changed significantly in design scope, the FHWA authorized the design-build project and the project met transportation conformity requirements (40 CFR parts 51 and 93).
- (3) Changes to the design-build project concept and scope may require a modification of the transportation plan and transportation improvement program. The project sponsor must comply with the metropolitan and statewide transportation planning requirements in 23 CFR part 450 and the transportation conformity requirements (40 CFR parts 51 and 93) in air quality nonattainment and maintenance areas, and provide appropriate approval notification to the design-builder for such changes.

[40 FR 17251, Apr. 18, 1975; 40 FR 36319, Aug. 20, 1975, as amended at 47 FR 47239, Oct. 25, 1982; 49 FR 28550, July 13, 1984; 50 FR 34093, Aug. 23, 1985; 52 FR 32669, Aug. 28, 1987; 52 FR 45173, Nov. 25, 1987; 53 FR 1921, Jan. 25, 1988; 54 FR 47075, Nov. 9, 1989; 67 FR 75926, Dec. 10, 2002; 72 FR 45336, Aug. 14, 2007]

Subpart D—General Material Requirements

SOURCE: 41 FR 36204, Aug. 27, 1976, unless otherwise noted.

§635.401 Purpose.

The purpose of this subpart is to prescribe requirements and procedures relating to product and material selection and use on Federal-aid highway projects.

§635.403 Definitions.

As used in this subpart, the following terms have the meanings indicated:

(a) FHWA Division Administrator means the chief Federal Highway Administration (FHWA) official assigned to conduct business in a particular State;

MAP-21, Section 1518 Buy America Provisions

SEC. 1518. BUY AMERICA PROVISIONS.

Section 313 of title 23, United States Code, is amended by

adding at the end the following:

"(g) APPLICATION TO HIGHWAY PROGRAMS.—The requirements under this section shall apply to all contracts eligible for assistance under this chapter for a project carried out within the scope of the applicable finding, determination, or decision under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), regardless of the funding source of such contracts, if at least 1 contract for the project is funded with amounts made available to carry out this title."

23 CFR 635.410 - Buy America

Note - The Buy America regulations (23 CFR 635.410) have not been updated to include the new requirements of MAP-21, shown in the previous section.

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stated in the plans or special provisions. Federal participation will be limited to (1) the cost of the material to the State transportation department or other public agency; or (2) the fair and reasonable value of the material, whichever is less. Special cases may arise that will justify Federal participation on a basis other than that set forth above. Such cases should be fully documented and receive advance approval by the FHWA Division Administrator.

(f) Costs incurred by the State transportation department or other public agency for acquiring a designated source or the right to take materials from it will not be eligible for Federal participation if the source is not used by the contractor.

(g) The contract provisions for one or a combination of Federal-aid projects shall not specify a mandatory site for the disposal of surplus excavated materials unless there is a finding by the State transportation department with the concurrence of the FHWA Division Administrator that such placement is the most economical except that the designation of a mandatory site may be permitted based on environmental considerations, provided the environment would be substantially enhanced without excessive cost.

§635.409 Restrictions upon materials.

No requirement shall be imposed and no procedure shall be enforced by any State transportation department in connection with a project which may operate:

(a) To require the use of or provide a price differential in favor of articles or materials produced within the State, or otherwise to prohibit, restrict or discriminate against the use of articles or materials shipped from or prepared, made or produced in any State, territory or possession of the United States; or

(b) To prohibit, restrict or otherwise discriminate against the use of articles or materials of foreign origin to any greater extent than is permissible under policies of the Department of Transportation as evidenced by requirements and procedures prescribed by the FHWA Administrator to carry out such policies.

§635.410 Buy America requirements.

(a) The provisions of this section shall prevail and be given precedence over any requirements of this subpart which are contrary to this section. However, nothing in this section shall be construed to be contrary to the requirements of §635.409(a) of this subpart.

(b) No Federal-aid highway construction project is to be authorized for advertisement or otherwise authorized to proceed unless at least one of the following requirements is met:

(1) The project either: (i) Includes no permanently incorporated steel or iron materials, or (ii) if steel or iron materials are to be used, all manufacturing processes, including application of a coating, for these materials must occur in the United States. Coating includes all processes which protect or enhance the value of the material to which the coating is applied.

(2) The State has standard contract provisions that require the use of domestic materials and products, including steel and iron materials, to the same or greater extent as the provisions set forth in this section.

(3) The State elects to include alternate bid provisions for foreign and domestic steel and iron materials which comply with the following requirements. Any procedure for obtaining alternate bids based on furnishing foreign steel and iron materials which is acceptable to the Division Administrator may be used. The contract provisions must (i) require all bidders to submit a bid based on furnishing domestic steel and iron materials, and (ii) clearly state that the contract will be awarded to the bidder who submits the lowest total bid based on furnishing domestic steel and iron materials unless such total bid exceeds the lowest total bid based on furnishing foreign steel and iron materials by more than 25 percent.

(4) When steel and iron materials are used in a project, the requirements of this section do not prevent a minimal use of foreign steel and iron materials, if the cost of such materials used does not exceed one-tenth of one percent (0.1 percent) of the total contract cost or \$2,500, whichever is greater. For purposes of this paragraph, the cost is that

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shown to be the value of the steel and iron products as they are delivered to the project.

- (c)(1) A State may request a waiver of the provisions of this section if;
- (i) The application of those provisions would be inconsistent with the public interest; or
- (ii) Steel and iron materials/products are not produced in the United States in sufficient and reasonably available quantities which are of a satisfactory quality.
- (2) A request for waiver, accompanied by supporting information, must be submitted in writing to the Regional Federal Highway Administrator (RFHWA) through the FHWA Division Administrator. A request must be submitted sufficiently in advance of the need for the waiver in order to allow time for proper review and action on the request. The RFHWA will have approval authority on the request.
- (3) Requests for waivers may be made for specific projects, or for certain materials or products in specific geographic areas, or for combinations of both, depending on the circumstances.
- (4) The denial of the request by the RFHWA may be appealed by the State to the Federal Highway Administrator (Administrator), whose action on the request shall be considered administratively final.
- (5) A request for a waiver which involves nationwide public interest or availability issues or more than one FHWA region may be submitted by the RFHWA to the Administrator for action.
- (6) A request for waiver and an appeal from a denial of a request must include facts and justification to support the granting of the waiver. The FHWA response to a request or appeal will be in writing and made available to the public upon request. Any request for a nationwide waiver and FHWA's action on such a request may be published in the FEDERAL REGISTER for public comment.
- (7) In determining whether the waivers described in paragraph (c)(1) of this section will be granted, the FHWA will consider all appropriate factors including, but not limited to, cost, administrative burden, and delay that would be imposed if the provision were not waived.

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(d) Standard State and Federal-aid contract procedures may be used to assure compliance with the requirements of this section.

[48 FR 53104, Nov. 25, 1983, as amended at 49 FR 18821, May 3, 1984; 58 FR 38975, July 21, 1993]

§635.411 Material or product selection.

- (a) Federal funds shall not participate, directly or indirectly, in payment for any premium or royalty on any patented or proprietary material, specification, or process specifically set forth in the plans and specifications for a project, unless:
- (1) Such patented or proprietary item is purchased or obtained through competitive bidding with equally suitable unpatented items; or
- (2) The State transportation department certifies either that such patented or proprietary item is essential for synchronization with existing highway facilities, or that no equally suitable alternate exists; or
- (3) Such patented or proprietary item is used for research or for a distinctive type of construction on relatively short sections of road for experimental purposes.
- (b) When there is available for purchase more than one nonpatented, nonproprietary material, semifinished or finished article or product that will fulfill the requirements for an item of work of a project and these available materials or products are judged to be of satisfactory quality and equally acceptable on the basis of engineering analysis and the anticipated prices for the related item(s) of work are estimated to be approximately the same, the PS&E for the project shall either contain or include by reference the specifications for each such material or product that is considered acceptable for incorporation in the work. If the State transportation department wishes to substitute some other acceptable material or product for the material or product designated by the successful bidder or bid as the lowest alternate, and such substitution results in an increase in costs, there will not be Federal-aid participation in any increase in costs.

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(d) When a utility files a notice or makes an individual application or request to a STD to use or occupy the right-of-way of a Federal-aid highway project, the STD is not required to submit the matter to the FHWA for prior concurrence, except when the proposed installation is not in accordance with this regulation or with the STD's utility accommodation policy approved by the FHWA for use on Federal-aid highway projects.

(e) The State transportation department's practices under the policies or agreements approved under §645.215(b) of this part shall be periodically reviewed by the FHWA.

(Information collection requirements in paragraph (a) were approved by the Office of Management and Budget under control number 2125-0514)

[50 FR 20354, May 15, 1985, as amended at 53 FR 2834, Feb. 2, 1988; 60 FR 34851, July 5, 1995; 65 FR 70312, Nov. 22, 2000]

PART 646—RAILROADS

Subpart A—Railroad-Highway Insurance Protection

Sec.

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APPENDIX TO SUBPART B OF PART 646—HORIZONTAL AND VERTICAL CLEARANCE PROVISIONS FOR OVERPASS AND UNDERPASS STRUCTURES

AUTHORITY: 23 U.S.C. 109(e), 120(c), 130, 133(d)(1), and 315; 49 CFR 1.48(b).

Subpart A—Railroad-Highway Insurance Protection

SOURCE: 39 FR 36474, Oct. 10, 1974, unless otherwise noted.

§646.101 Purpose.

The purpose of this part is to prescribe provisions under which Federal funds may be applied to the costs of public liability and property damage insurance obtained by contractors (a) for their own operations, and (b) on behalf of railroads on or about whose right-of-way the contractors are required to work in the construction of highway projects financed in whole or in part with Federal funds.

§646.103 Application.

(a) This part applies:

(1) To a contractors' legal liability for bodily injury to, or death of, persons and for injury to, or destruction of, property.

(2) To the liability which may attach to railroads for bodily injury to, or death of, persons and for injury to, or destruction of, property.

(3) To damage to property owned by or in the care, custody or control of the railroads, both as such liability or damage may arise out of the contractor's operations, or may result from work performed by railroads at or about railroad rights-of-way in connection with projects financed in whole or in part with Federal funds.

(b) Where the highway construction is under the direct supervision of the Federal Highway Administration (FHWA), all references herein to the State shall be considered as references to the FHWA.

§646.105 Contractor's public liability and property damage insurance.

(a) Contractors may be subject to liability with respect to bodily injury to or death of persons, and injury to, or destruction of property, which may be suffered by persons other than their own employees as a result of their operations in connection with construction of highway projects located in whole or in part with railroad right-of-way and financed in whole or in part with Federal funds. Protection to cover such liability of contractors shall be

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furnished under regular contractors' public liability and property damage insurance policies issued in the names of the contractors. Such policies shall be so written as to furnish protection to contractors respecting their operations in performing work covered by their contract.

(b) Where a contractor sublets a part of the work on any project to a subcontractor, the contractor shall be required to secure insurance protection in his own behalf under contractor's public liability and property damage insurance policies to cover any liability imposed on him by law for damages because of bodily injury to, or death of, persons and injury to, or destruction of, property as a result of work undertaken by such subcontractors. In addition, the contractor shall provide for and on behalf of any such subcontractors protection to cover like liability imposed upon the latter as a result of their operations by means of separate and individual contractor's public liability and property damage policies; or, in the alternative, each subcontractor shall provide satisfactory insurance on his own behalf to cover his individual operations.

(c) The contractor shall furnish to the State highway department evidence satisfactory to such department and to the FHWA that the insurance coverages required herein have been provided. The contractor shall also furnish a copy of such evidence to the railroad or railroads involved. The insurance specified shall be kept in force until all work required to be performed shall have been satisfactorily completed and accepted in accordance with the contract under which the construction work is undertaken.

§ 646.107 Railroad protective insurance.

In connection with highway projects for the elimination of hazards of railroad-highway crossings and other highway construction projects located in whole or in part within railroad right-of-way, railroad protective liability insurance shall be purchased on behalf of the railroad by the contractor. The standards for railroad protective insurance established by §§646.109 through 646.111 shall be adhered to insofar as

the insurance laws of the State will permit.

[39 FR 36474, Oct. 10, 1974, as amended at 47 FR 33955, Aug. 5, 1982]

§646.109 Types of coverage.

- (a) Coverage shall be limited to damage suffered by the railroad on account of occurrences arising out of the work of the contractor on or about the railroad right-of-way, independent of the railroad's general supervision or control, except as noted in §646.109(b)(4).
 - (b) Coverage shall include:
- (1) Death of or bodily injury to passengers of the railroad and employees of the railroad not covered by State workmen's compensation laws;
- (2) Personal property owned by or in the care, custody or control of the railroads:
- (3) The contractor, or any of his agents or employees who suffer bodily injury or death as the result of acts of the railroad or its agents, regardless of the negligence of the railroad:
- (4) Negligence of only the following classes of railroad employees:
- (i) Any supervisory employee of the railroad at the job site;
- (ii) Any employee of the railroad while operating, attached to, or engaged on, work trains or other railroad equipment at the job site which are assigned exclusively to the contractor; or
- (iii) Any employee of the railroad not within (b)(4) (i) or (ii) who is specifically loaned or assigned to the work of the contractor for prevention of accidents or protection of property, the cost of whose services is borne specifically by the contractor or governmental authority.

§646.111 Amount of coverage.

- (a) The maximum dollar amounts of coverage to be reimbursed from Federal funds with respect to bodily injury, death and property damage is limited to a combined amount of \$2 million per occurrence with an aggregate of \$6 million applying separately to each annual period except as provided in paragraph (b) of this section.
- (b) In cases involving real and demonstrable danger of appreciably higher risks, higher dollar amounts of coverage for which premiums will be reimbursable from Federal funds shall be

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allowed. These larger amounts will depend on circumstances and shall be written for the individual project in accordance with standard underwriting practices upon approval of the FHWA.

[39 FR 36474, Oct. 10, 1974, as amended at 47 FR 33955, Aug. 5, 1982]

Subpart B—Railroad-Highway Projects

SOURCE: 40 FR 16059, Apr. 9, 1975, unless otherwise noted.

§646.200 Purpose and applicability.

- (a) The purpose of this subpart is to prescribe policies and procedures for advancing Federal-aid projects involving railroad facilities.
- (b) This subpart, and all references hereinafter made to *projects*, applies to Federal-aid projects involving railroad facilities, including projects for the elimination of hazards of railroad-highway crossings, and other projects which use railroad properties or which involve adjustments required by highway construction to either railroad facilities or facilities that are jointly owned or used by railroad and utility companies.
- (c) Additional instructions for projects involving the elimination of hazards of railroad/highway grade crossings pursuant to 23 U.S.C. 130 are set forth in 23 CFR part 924.
- (d) Procedures on reimbursement for projects undertaken pursuant to this subpart are set forth in 23 CFR part 140, subpart I.
- (e) Procedures on insurance required of contractors working on or about railroad right-of-way are set forth in 23 CFR part 646, subpart A.

[40 FR 16059, Apr. 9, 1975, as amended at 45 FR 20795, Mar. 31, 1980; 62 FR 45328, Aug. 27, 1997]

§646.202 [Reserved]

§646.204 Definitions.

For the purposes of this subpart, the following definitions apply:

Active warning devices means those traffic control devices activated by the approach or presence of a train, such as flashing light signals, automatic gates and similar devices, as well as manu-

ally operated devices and crossing watchmen, all of which display to motorists positive warning of the approach or presence of a train.

Company shall mean any railroad or utility company including any wholly owned or controlled subsidiary thereof.

Construction shall mean the actual physical construction to improve or eliminate a railroad-highway grade crossing or accomplish other railroad involved work.

A diagnostic team means a group of knowledgeable representatives of the parties of interest in a railroad-highway crossing or a group of crossings.

Main line railroad track means a track of a principal line of a railroad, including extensions through yards, upon which trains are operated by timetable or train order or both, or the use of which is governed by block signals or by centralized traffic control.

Passive warning devices means those types of traffic control devices, including signs, markings and other devices, located at or in advance of grade crossings to indicate the presence of a crossing but which do not change aspect upon the approach or presence of a train.

Preliminary engineering shall mean the work necessary to produce construction plans, specifications, and estimates to the degree of completeness required for undertaking construction thereunder, including locating, surveying, designing, and related work.

Railroad shall mean all rail carriers, publicly-owned, private, and common carriers, including line haul freight and passenger railroads, switching and terminal railroads and passenger carrying railroads such as rapid transit, commuter and street railroads.

Utility shall mean the lines and facilities for producing, transmitting or distributing communications, power, electricity, light, heat, gas, oil, water, steam, sewer and similar commodities.

[40 FR 16059, Apr. 9, 1975, as amended at 62 FR 45328, Aug. 27, 1997]

§ 646.206 Types of projects.

- (a) Projects for the elimination of hazards, to both vehicles and pedestrians, of railroad-highway crossings may include but are not limited to:
 - (1) Grade crossing elimination;

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- (2) Reconstruction of existing grade separations; and
 - (3) Grade crossing improvements.
- (b) Other railroad-highway projects are those which use railroad properties or involve adjustments to railroad facilities required by highway construction but do not involve the elimination of hazards of railroad-highway crossings. Also included are adjustments to facilities that are jointly owned or used by railroad and utility companies.

§646.208 Funding.

- (a) Railroad/highway crossing projects may be funded through the Federal-aid funding source appropriate for the involved project.
- (b) Projects for the elimination of hazards at railroad/highway crossings may, at the option of the State, be funded with the funds provided by 23 U.S.C. 133(d)(1).

[62 FR 45328, Aug. 27, 1997]

§ 646.210 Classification of projects and railroad share of the cost.

- (a) State laws requiring railroads to share in the cost of work for the elimination of hazards at railroad-highway crossings shall not apply to Federal-aid projects.
- (b) Pursuant to 23 U.S.C. 130(b), and 49 CFR 1.48:
- (1) Projects for grade crossing improvements are deemed to be of no ascertainable net benefit to the railroads and there shall be no required railroad share of the costs.
- (2) Projects for the reconstruction of existing grade separations are deemed to generally be of no ascertainable net benefit to the railroad and there shall be no required railroad share of the costs, unless the railroad has a specific contractual obligation with the State or its political subdivision to share in the costs.
- (3) On projects for the elimination of existing grade crossings at which active warning devices are in place or ordered to be installed by a State regulatory agency, the railroad share of the project costs shall be 5 percent.
- (4) On projects for the elimination of existing grade crossings at which active warning devices are not in place and have not been ordered installed by a State regulatory agency, or on

projects which do not eliminate an existing crossing, there shall be no required railroad share of the project cost.

- (c) The required railroad share of the cost under \$646.210(b)(3) shall be based on the costs for preliminary engineering, right-of-way and construction within the limits described below:
- (1) Where a grade crossing is eliminated by grade separation, the structure and approaches required to transition to a theoretical highway profile which would have been constructed if there were no railroad present, for the number of lanes on the existing highway and in accordance with the current design standards of the State highway agency.
- (2) Where another facility, such as a highway or waterway, requiring a bridge structure is located within the limits of a grade separation project, the estimated cost of a theoretical structure and approaches as described in §646.210(c)(1) to eliminate the railroad-highway grade crossing without considering the presence of the waterway or other highway.
- (3) Where a grade crossing is eliminated by railroad or highway relocation, the actual cost of the relocation project, the estimated cost of the relocation project, or the estimated cost of a structure and approaches as described in §646.210(c)(1), whichever is less.
- (d) Railroads may voluntarily contribute a greater share of project costs than is required. Also, other parties may voluntarily assume the railroad's share.

§646.212 Federal share.

- (a) *General*. (1) Federal funds are not eligible to participate in costs incurred solely for the benefit of the railroad.
- (2) At grade separations Federal funds are eligible to participate in costs to provide space for more tracks than are in place when the railroad establishes to the satisfaction of the State highway agency and FHWA that it has a definite demand and plans for installation of the additional tracks within a reasonable time.
- (3) The Federal share of the cost of a grade separation project shall be based on the cost to provide horizontal and/or

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vertical clearances used by the railroad in its normal practice subject to limitations as shown in the appendix or as required by a State regulatory agency.

- (b) The Federal share of railroad/highway crossing projects may be:
- (1) Regular pro rata sharing as provided by 23 U.S.C. 120(a) and 120(b).
- (2) One hundred percent Federal share, as provided by 23 U.S.C. 120(c).
- (3) Ninety percent Federal share for funds made available through 23 U.S.C. 133(d)(1).

[40 FR 16059, Apr. 9, 1975, as amended at 47 FR 33955, Aug. 5, 1982; 53 FR 32218, Aug. 24, 1988; 62 FR 45328, Aug. 27, 1997]

§646.214 Design.

- (a) General. (1) Facilities that are the responsibility of the railroad for maintenance and operation shall conform to the specifications and design standards used by the railroad in its normal practice, subject to approval by the State highway agency and FHWA.
- (2) Facilities that are the responsibility of the highway agency for maintenance and operation shall conform to the specifications and design standards and guides used by the highway agency in its normal practice for Federal-aid projects.
- (b) Grade crossing improvements. (1) All traffic control devices proposed shall comply with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways supplemented to the extent applicable by State standards.
- (2) Pursuant to 23 U.S.C. 109(e), where a railroad-highway grade crossing is located within the limits of or near the terminus of a Federal-aid highway project for construction of a new highway or improvement of the existing roadway, the crossing shall not be opened for unrestricted use by traffic or the project accepted by FHWA until adequate warning devices for the crossing are installed and functioning properly.
- (3)(i) Adequate warning devices, under §646.214(b)(2) or on any project where Federal-aid funds participate in the installation of the devices are to include automatic gates with flashing light signals when one or more of the following conditions exist:

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- (A) Multiple main line railroad tracks.
- (B) Multiple tracks at or in the vicinity of the crossing which may be occupied by a train or locomotive so as to obscure the movement of another train approaching the crossing.
- (C) High Speed train operation combined with limited sight distance at either single or multiple track crossings.
- (D) A combination of high speeds and moderately high volumes of highway and railroad traffic.
- (E) Either a high volume of vehicular traffic, high number of train movements, substantial numbers of schoolbuses or trucks carrying hazardous materials, unusually restricted sight distance, continuing accident occurrences, or any combination of these conditions.
- (F) A diagnostic team recommends them.
- (ii) In individual cases where a diagnostic team justifies that gates are not appropriate, FHWA may find that the above requirements are not applicable.
- (4) For crossings where the requirements of §646.214(b)(3) are not applicable, the type of warning device to be installed, whether the determination is made by a State regulatory agency, State highway agency, and/or the railroad, is subject to the approval of FHWA.
- (c) Grade crossing elimination. All crossings of railroads and highways at grade shall be eliminated where there is full control of access on the highway (a freeway) regardless of the volume of railroad or highway traffic.

[40 FR 16059, Apr. 9, 1975, as amended at 47 FR 33955, Aug. 5, 1982; 62 FR 45328, Aug. 27, 1997]

§646.216 General procedures.

- (a) General. Unless specifically modified herein, applicable Federal-aid procedures govern projects undertaken pursuant to this subpart.
- (b) Preliminary engineering and engineering services. (1) As mutually agreed to by the State highway agency and railroad, and subject to the provisions of §646.216(b)(2), preliminary engineering work on railroad-highway projects may be accomplished by one of the following methods:

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- (i) The State or railroad's engineering forces;
- (ii) An engineering consultant selected by the State after consultation with the railroad, and with the State administering the contract; or
- (iii) An engineering consultant selected by the railroad, with the approval of the State and with the railroad administering the contract.
- (2) Where a railroad is not adequately staffed, Federal-aid funds may participate in the amounts paid to engineering consultants and others for required services, provided such amounts are not based on a percentage of the cost of construction, either under contracts for individual projects or under existing written continuing contracts where such work is regularly performed for the railroad in its own work under such contracts at reasonable costs.
- (c) Rights-of-way. (1) Acquisition of right-of-way by a State highway agency on behalf of a railroad or acquisition of nonoperating real property from a railroad shall be in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. 4601 et seq.) and applicable FHWA right-of-way procedures in 23 CFR, chapter I, subchapter H. On projects for the elimination of hazards of railroad-highway crossings by the relocation of railroads, acquisition or replacement right-of-way by a railroad shall be in accordance with 42 U.S.C. 4601 et seg.
- (2) Where buildings and other depreciable structures of the railroad (such as signal towers, passenger stations, depots, and other buildings, and equipment housings) which are integral to operation of railroad traffic are wholly or partly affected by a highway project, the costs of work necessary to functionally restore such facilities are eligible for participation. However, when replacement of such facilities is necessary, credits shall be made to the cost of the project for:
- (i) Accrued depreciation, which is that amount based on the ratio between the period of actual length of service and total life expectancy applied to the original cost.
- (ii) Additions or improvements which provide higher quality or increased service capability of the facility and

which are provided solely for the benefit of the railroad.

- (iii) Actual salvage value of the material recovered from the facility being replaced. Total credits to a project shall not be required in excess of the replacement cost of the facility.
- (3) Where Federal funds participate in the cost of replacement right-of-way, there will be no charge to the project for the railroad's existing right-of-way being transferred to the State highway agency except when the value of the right-of-way being taken exceeds the value of the replacement right-of-way.
- (d) State-railroad agreements. (1) Where construction of a Federal-aid project requires use of railroad properties or adjustments to railroad facilities, there shall be an agreement in writing between the State highway agency and the railroad company.
- (2) The written agreement between the State and the railroad shall, as a minimum include the following, where applicable:
- (i) The provisions of this subpart and of 23 CFR part 140, subpart I, incorporated by reference.
- (ii) A detailed statement of the work to be performed by each party.
- (iii) Method of payment (either actual cost or lump sum),
- (iv) For projects which are not for the elimination of hazards of railroadhighway crossings, the extent to which the railroad is obligated to move or adjust its facilities at its own expense,
- (v) The railroad's share of the project
- (vi) An itemized estimate of the cost of the work to be performed by the railroad,
- (vii) Method to be used for performing the work, either by railroad forces or by contract,
 - (viii) Maintenance responsibility,
- (ix) Form, duration, and amounts of any needed insurance,
- (x) Appropriate reference to or identification of plans and specifications,
- (xi) Statements defining the conditions under which the railroad will provide or require protective services during performance of the work, the type of protective services and the method of reimbursement to the railroad, and

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(xii) Provisions regarding inspection of any recovered materials.

- (3) On work to be performed by the railroad with its own forces and where the State highway agency and railroad agree, subject to approval by FHWA, an agreement providing for a lump sum payment in lieu of later determination of actual costs may be used for any of the following:
- (i) Installation or improvement of grade crossing warning devices and/or grade crossing surfaces, regardless of cost, or
- (ii) Any other eligible work where the estimated cost to the State of the proposed railroad work does not exceed \$100,000 or
- (iii) Where FHWA finds that the circumstances are such that this method of developing costs would be in the best interest of the public.
- (4) Where the lump sum method of payment is used, periodic reviews and analyses of the railroad's methods and cost data used to develop lump sum estimates will be made.
- (5) Master agreements between a State and a railroad on an areawide or statewide basis may be used. These agreements would contain the specifications, regulations, and provisions required in conjunction with work performed on all projects. Supporting data for each project or group of projects must, when combined with the master agreement by reference, satisfy the provisions of § 646.216(d)(2).
- (6) Official orders issued by regulatory agencies will be accepted in lieu of State-railroad agreements only where, together with supplementary written understandings between the State and the railroad, they include the items required by §646.216(d)(2).
- (7) In extraordinary cases where FHWA finds that the circumstances are such that requiring such agreement or order would not be in the best interest of the public, projects may be approved for construction with the aid of Federal funds, provided satisfactory commitments have been made with respect to construction, maintenance and the railroad share of project costs.
- (e) Authorizations. (1) The costs of preliminary engineering, right-of-way acquisition, and construction incurred after the date each phase of the work is

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included in an approved statewide transportation improvement program and authorized by the FHWA are eligible for Federal-aid participation. Preliminary engineering and right-of-way acquisition costs which are otherwise eligible, but incurred by a railroad prior to authorization by the FHWA, although not reimbursable, may be included as part of the railroad share of project cost where such a share is required.

- (2) Prior to issuance of authorization by FHWA either to advertise the physical construction for bids or to proceed with force account construction for railroad work or for other construction affected by railroad work, the following must be accomplished:
- (i) The plans, specifications and estimates must be approved by FHWA.
- (ii) A proposed agreement between the State and railroad must be found satisfactory by FHWA. Before Federal funds may be used to reimburse the State for railroad costs the executed agreement must be approved by FHWA. However, cost for materials stockpiled at the project site or specifically purchased and delivered to the company for use on the project may be reimbursed on progress billings prior to the approval of the executed State-Railroad Agreement in accordance with 23 CFR 140.922(a) and §646.218 of this part.
- (iii) Adequate provisions must be made for any needed easements, right-of-way, temporary crossings for construction purposes or other property interests.
- (iv) The pertinent portions of the State-railroad agreement applicable to any protective services required during performance of the work must be included in the project specifications and special provisions for any construction contract.
- (3) In unusual cases, pending compliance with \$646.216(e)(2)(ii), (iii) and (iv), authorization may be given by FHWA to advertise for bids for highway construction under conditions where a railroad grants a right-ofentry to its property as necessary to prosecute the physical construction.
- (f) Construction. (1) Construction may be accomplished by:
- (i) Railroad force account,

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- (ii) Contracting with the lowest qualified bidder based on appropriate solicitation.
- (iii) Existing continuing contracts at reasonable costs, or
- (iv) Contract without competitive bidding, for minor work, at reasonable costs.
- (2) Reimbursement will not be made for any increased costs due to changes in plans:
- (i) For the convenience of the contractor, or
- (ii) Not approved by the State and FHWA.
- (3) The State and FHWA shall be afforded a reasonable opportunity to inspect materials recovered by the railroad prior to disposal by sale or scrap. This requirement will be satisfied by the railroad giving written notice, or oral notice with prompt written confirmation, to the State of the time and place where the materials will be available for inspection. The giving of notice is the responsibility of the railroad, and it may be held accountable for full value of materials disposed of without notice.
- (4) In addition to normal construction costs, the following construction costs are eligible for participation with Federal-aid funds when approved by the State and FHWA:
- (i) The cost of maintaining temporary facilities of a railroad company required by and during the highway construction to the extent that such costs exceed the documented normal cost of maintaining the permanent facilities
- (ii) The cost of stage or extended construction involving grade corrections and/or slope stabilization for permanent tracks of a railroad which are required to be relocated on new grade by the highway construction. Stage or extended construction will be approved by FHWA only when documentation submitted by the State establishes the proposed method of construction to be the only practical method and that the cost of the extended construction within the period specified is estimated to be less than the cost of any practicable alternate procedure.
- (iii) The cost of restoring the company's service by adustments of existing facilities away from the project

site, in lieu of and not to exceed the cost of replacing, adjusting or relocating facilities at the project site.

(iv) The cost of an addition or improvement to an existing railroad facility which is required by the highway construction.

[40 FR 16059, Apr. 9, 1975, as amended at 40 FR 29712, July 15, 1975; 47 FR 33956, Aug. 5, 1982; 62 FR 45328, Aug. 27, 1997]

§646.218 Simplified procedure for accelerating grade crossing improvements.

- (a) The procedure set forth in this section is encouraged for use in simplifying and accelerating the processing of single or multiple grade crossing improvements.
- (b) Eligible preliminary engineering costs may include those incurred in selecting crossings to be improved, determining the type of improvement for each crossing, estimating the cost and preparing the required agreement.
- (c) The written agreement between a State and a railroad shall contain as a minimum:
- (1) Identification of each crossing location.
- (2) Description of improvement and estimate of cost for each crossing location
- (3) Estimated schedule for completion of work at each location.
- (d) Following programming, authorization and approval of the agreement under §646.218(c), FHWA may authorize construction, including acquisition of warning device materials, with the condition that work at any particular location will not be undertaken until the proposed or executed State-railroad agreement under §646.216(d)(2) is found satisfactory by FHWA and the final plans, specifications, and estimates are approved and with the condition that only material actually incorporated into the project will be eligible for Federal participation.
- (e) Work programmed and authorized under this simplified procedure should include only that which can reasonably be expected to reach the construction stage within one year and be completed within two years after the initial authorization date.

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§646.220 Alternate Federal-State procedure.

- (a) On other than Interstate projects, an alternate procedure may be used, at the election of the State, for processing certain types of railroad-highway work. Under this procedure, the State highway agency will act in the relative position of FHWA for reviewing and approving projects.
- (b) The scope of the State's approval authority under the alternate procedure includes all actions necessary to advance and complete the following types of railroad-highway work:
- (1) All types of grade crossing improvements under § 646.206(a)(3).
- (2) Minor adjustments to railroad facilities under §646.206(b).
- (c) The following types of work are to be reviewed and approved in the normal manner, as prescribed elsewhere in this subpart.
- (1) All projects under §646.206(a) (1) and (2).
- (2) Major adjustments to railroad facilities under §646.206(b).
- (d) Any State wishing to adopt the alternate procedure may file a formal application for approval by FHWA. The application must include the following:
- (1) The State's written policies and procedures for administering and processing Federal-aid railroad-highway work, which make adequate provisions with respect to all of the following:
- (i) Compliance with the provisions of title 23 U.S.C., title 23 CFR, and other applicable Federal laws and Executive Orders.
- (ii) Compliance with this subpart and 23 CFR part 140, subpart I and 23 CFR part 172.
- (iii) For grade crossing safety improvements, compliance with the requirements of 23 CFR part 924.
- (2) A statement signed by the Chief Administrative Officer of the State highway agency certifying that:
- (i) The work will be done in accordance with the applicable provisions of the State's policies and procedures submitted under § 646.220(d)(1), and
- (ii) Reimbursement will be requested in only those costs properly attributable to the highway construction and eligible for Federal fund participation.
- (e) When FHWA has approved the alternate procedure, it may authorize

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the State to proceed in accordance with the State's certification, subject to the following conditions:

- (1) The work has been programmed.
- (2) The State submits in writing a request for such authorization which shall include a list of the improvements or adjustments to be processed under the alternate procedure, along with the best available estimate of cost.
- (f) The FHWA Regional Administrator may suspend approval of the certified procedure, where FHWA reviews disclose noncompliance with the certification. Federal-aid funds will not be eligible to participate in costs that do not qualify under §646.220(d)(1).

[40 FR 16059, Apr. 9, 1975; 40 FR 29712, July 15, 1975; 40 FR 31211, July 25, 1975; 42 FR 30835, June 17, 1977, as amended at 45 FR 20795, Mar. 31, 1980]

APPENDIX TO SUBPART B OF PART 646— HORIZONTAL AND VERTICAL CLEAR-ANCE PROVISIONS FOR OVERPASS AND UNDERPASS STRUCTURES

The following implements provisions of 23 CFR 646.212(a)(3).

a. Lateral Geometrics

A cross section with a horizontal distance of 6.1 meters, measured at right angles from the centerline of track at the top of rails, to the face of the embankment slope, may be approved. The 6.1-meters distance may be increased at individual structure locations as appropriate to provide for drainage if justified by a hydraulic analysis or to allow adequate room to accommodate special conditions, such as where heavy and drifting snow is a problem. The railroad must demonstrate that this is its normal practice to address these special conditions in the manner proposed. Additionally, this distance may also be increased up to 2.5 meters as may be necessary for off-track maintenance equipment, provided adequate horizontal clearance is not available in adjacent spans and where justified by the presence of an existing maintenance road or by evidence of future need for such equipment. All piers should be placed at least 2.8 meters horizontally from the centerline of the track and preferably beyond the drainage ditch. For multiple track facilities, all dimensions apply to the centerline of the outside track.

Any increase above the 6.1-meters horizontal clearance distance must be required by specific site conditions and be justified by the railroad to the satisfaction of the State highway agency (SHA) and the FHWA.

b. Vertical Clearance

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A vertical clearance of 7.1 meters above the top of rails, which includes an allowance for future ballasting of the railroad tracks, may be approved. Vertical clearance greater than 7.1 meters may be approved when the State regulatory agency having jurisdiction over such matters requires a vertical clearance in excess of 7.1 meters or on a site by site basis where justified by the railroad to the satisfaction of the SHA and the FHWA. A railroad's justification for increased vertical clearance should be based on an analysis of engineering, operational and/or economic conditions at a specific structure location.

Federal-aid highway funds are also eligible to participate in the cost of providing vertical clearance greater than 7.1 meters where a railroad establishes to the satisfaction of a SHA and the FHWA that it has a definite formal plan for electrification of its rail system where the proposed grade separation project is located. The plan must cover a logical independent segment of the rail system and be approved by the railroad's corporate headquarters. For 25 kv line, a vertical clearance of 7.4 meters may be approved. For 50 kv line, a vertical clearance of 8.0 meters may be approved.

A railroad's justification to support its plan for electrification shall include maps and plans or drawings showing those lines to be electrified; actions taken by its corporate headquarters committing it to electrification including a proposed schedule; and actions initiated or completed to date implementing its electrification plan such as a showing of the amounts of funds and identification of structures, if any, where the railroad has expended its own funds to provide added clearance for the proposed electrification. If available, the railroad's justification should include information on its contemplated treatment of existing grade separations along the section of its rail system proposed for electrification.

The cost of reconstructing or modifying any existing railroad-highway grade separation structures solely to accommodate electrification will not be eligible for Federal-aid highway fund participation.

c. Railroad Structure Width

Two and eight tenths meters of structure width outside of the centerline of the outside tracks may be approved for a structure carrying railroad tracks. Greater structure width may be approved when in accordance with standards established and used by the affected railroad in its normal practice.

In order to maintain continuity of offtrack equipment roadways at structures carrying tracks over limited access highways, consideration should be given at the preliminary design stage to the feasibility of using public road crossings for this purpose. Where not feasible, an additional structure width of 2.5 meters may be approved if designed for off-track equipment only.

[53 FR 32218, Aug. 24, 1988, as amended at 62 FR 45328, Aug. 27, 1997]

PART 650—BRIDGES, STRUCTURES, AND HYDRAULICS

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ation of tolls on the existing Richmond-Petersburg Turnpike to finance the construction within the existing termini of such turnpike of two lanes thereon in addition to the lanes in existence on the date of enactment of this section [Dec. 31, 1970] necessary to meet traffic and highway safety requirements. Any amended agreement entered into for such purposes shall provide assurances that the existing turnpike (including the additional lanes) shall become free to the public upon the collection of tolls sufficient to liquidate all construction costs, and the costs of maintenance, operation, and debt service during the period of toll collections to liquidate such construction costs, but in no event shall tolls be collected after date of maturity of those bonds outstanding on the date of enactment of this section [Dec. 31, 1970] issued for construction of such turnpike having the latest maturity date."

§130. Railway-highway crossings

(a) Subject to section 120 and subsection (b) of this section, the entire cost of construction of projects for the elimination of hazards of railway-highway crossings, including the separation or protection of grades at crossings, the reconstruction of existing railroad grade crossing structures, and the relocation of highways to eliminate grade crossings, may be paid from sums apportioned in accordance with section 104 of this title. In any case when the elimination of the hazards of a railway-highway crossing can be effected by the relocation of a portion of a railway at a cost estimated by the Secretary to be less than the cost of such elimination by one of the methods mentioned in the first sentence of this section, then the entire cost of such relocation project, subject to section 120 and subsection (b) of this section, may be paid from sums apportioned in accordance with section 104 of this title.

(b) The Secretary may classify the various types of projects involved in the elimination of hazards of railway-highway crossings, and may set for each such classification a percentage of the costs of construction which shall be deemed to represent the net benefit to the railroad or railroads for the purpose of determining the railroad's share of the cost of construction. The percentage so determined shall in no case exceed 10 per centum. The Secretary shall determine the appropriate classification of each project.

(c) Any railroad involved in a project for the elimination of hazards of railway-highway crossings paid for in whole or in part from sums made available for expenditure under this title, or prior Acts, shall be liable to the United States for the net benefit to the railroad determined under the classification of such project made pursuant to subsection (b) of this section. Such liability to the United States may be discharged by direct payment to the State transportation department of the State in which the project is located, in which case such payment shall be credited to the cost of the project. Such payment may consist in whole or in part of materials and labor furnished by the railroad in connection with the construction of such project. If any such railroad fails to discharge such liability within a six-month period after completion of the project, it shall be liable to the United States for its share of the cost, and the Secretary shall request the Attorney General to institute proceedings against such railroad for the recovery of the amount for which it is liable

under this subsection. The Attorney General is authorized to bring such proceedings on behalf of the United States, in the appropriate district court of the United States, and the United States shall be entitled in such proceedings to recover such sums as it is considered and adjudged by the court that such railroad is liable for in the premises. Any amounts recovered by the United States under this subsection shall be credited to miscellaneous receipts.

(d) SURVEY AND SCHEDULE OF PROJECTS.—Each State shall conduct and systematically maintain a survey of all highways to identify those railroad crossings which may require separation, relocation, or protective devices, and establish and implement a schedule of projects for this purpose. At a minimum, such a schedule shall provide signs for all railway-highway crossings.

(e) Funds for Protective Devices.—

(1) IN GENERAL.—Before making an apportionment under section 104(b)(3) for a fiscal year, the Secretary shall set aside, from amounts made available to carry out the highway safety improvement program under section 148 for such fiscal year, at least \$220,000,000 for the elimination of hazards and the installation of protective devices at railway-highway crossings. At least ½ of the funds authorized for and expended under this section shall be available for the installation of protective devices at railway-highway crossings. Sums authorized to be appropriated to carry out this section shall be available for obligation in the same manner as funds apportioned under section 104(b)(1) of this title.

(2) SPECIAL RULE.—If a State demonstrates to the satisfaction of the Secretary that the State has met all its needs for installation of protective devices at railway-highway crossings, the State may use funds made available by this section for other highway safety improvement program purposes.

(f) Apportionment.—

- (1) FORMULA.—Fifty percent of the funds set aside to carry out this section pursuant to subsection (e)(1) shall be apportioned to the States in accordance with the formula set forth in section 104(b)(3)(A) as in effect on the day before the date of enactment of the MAP-21, and 50 percent of such funds shall be apportioned to the States in the ratio that total public railway-highway crossings in each State bears to the total of such crossings in all States.
- (2) MINIMUM APPORTIONMENT.—Notwithstanding paragraph (1), each State shall receive a minimum of one-half of 1 percent of the funds apportioned under paragraph (1).

(3) FEDERAL SHARE.—The Federal share payable on account of any project financed with funds set aside to carry out this section shall be 90 percent of the cost thereof.

(g) ANNUAL REPORT.—Each State shall report to the Secretary not later than December 30 of each year on the progress being made to implement the railway-highway crossings program authorized by this section and the effectiveness of such improvements. Each State report shall contain an assessment of the costs of the var-

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ious treatments employed and subsequent accident experience at improved locations. The Secretary shall submit a report to the Committee on Environment and Public Works and the Committee on Commerce, Science, and Transportation,1 of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives, not later than April 1, 2006, and every 2 years thereafter,, 1 on the progress being made by the State in implementing projects to improve railway-highway crossings. The report shall include, but not be limited to, the number of projects undertaken, their distribution by cost range, road system, nature of treatment, and subsequent accident experience at improved locations. In addition, the Secretary's report shall analyze and evaluate each State program, identify any State found not to be in compliance with the schedule of improvements required by subsection (d) and include recommendations for future implementation of the railroad highway 2 crossings program.

(h) USE OF FUNDS FOR MATCHING.—Funds authorized to be appropriated to carry out this section may be used to provide a local government with funds to be used on a matching basis when State funds are available which may only be spent when the local government produces matching funds for the improvement of railwayhighway crossings.

(i) Incentive Payments for At-Grade Cross-ING CLOSURES.-

- (1) IN GENERAL.—Notwithstanding any other provision of this section and subject to paragraphs (2) and (3), a State may, from sums available to the State under this section, make incentive payments to local governments in the State upon the permanent closure by such governments of public at-grade railway-highway crossings under the jurisdiction of such governments.
- (2) INCENTIVE PAYMENTS BY RAILROADS.—A State may not make an incentive payment under paragraph (1) to a local government with respect to the closure of a crossing unless the railroad owning the tracks on which the crossing is located makes an incentive payment to the government with respect to the
- (3) Amount of state payment.—The amount of the incentive payment payable to a local government by a State under paragraph (1) with respect to a crossing may not exceed the lesser of-
- (A) the amount of the incentive payment paid to the government with respect to the crossing by the railroad concerned under paragraph (2); or
 - (B) \$7,500
- (4) Use of state payments.—A local government receiving an incentive payment from a State under paragraph (1) shall use the amount of the incentive payment for transportation safety improvements.
- (j) BICYCLE SAFETY.—In carrying out projects under this section, a State shall take into account bicycle safety.

- (k) Expenditure of Funds.—Not more than 2 percent of funds apportioned to a State to carry out this section may be used by the State for compilation and analysis of data in support of activities carried out under subsection (g).
 - (1) NATIONAL CROSSING INVENTORY
- (1) Initial reporting of crossing informa-TION.—Not later than 1 year after the date of enactment of the Rail Safety Improvement Act of 2008 or within 6 months of a new crossing becoming operational, whichever occurs later, each State shall report to the Secretary of Transportation current information, including information about warning devices and signage, as specified by the Secretary, concerning each previously unreported public crossing located within its borders.
- (2) Periodic updating of crossing informa-TION.—On a periodic basis beginning not later than 2 years after the date of enactment of the Rail Safety Improvement Act of 2008 and on or before September 30 of every year thereafter, or as otherwise specified by the Secretary, each State shall report to the Secretary current information, including information about warning devices and signage, as specified by the Secretary, concerning each public crossing located within its borders.

(Pub. L. 85-767, Aug. 27, 1958, 72 Stat. 903; Pub. L. 100-17, title I, §121(a), Apr. 2, 1987, 101 Stat. 159; Pub. L. 104-59, title III, §325(a), Nov. 28, 1995, 109 Stat. 591; Pub. L. 104-205, title III, §353(b), Sept. 30, 1996, 110 Stat. 2980; Pub. L. 105-178, title I, §§ 1111(d), 1202(d), 1212(a)(2)(A)(i), June 9, 1998, 112 Stat. 146, 170, 193; Pub. L. 109-59, title I, § 1401(c), formerly §1401(d), Aug. 10, 2005, 119 Stat. 1226, renumbered §1401(c), Pub. L. 110-244, title I, §101(s)(1), June 6, 2008, 122 Stat. 1577; Pub. L. 110-244, title I, § 101(l), June 6, 2008, 122 Stat. 1575; Pub. L. 110-432, div. A, title II, § 204(c), Oct. 16, 2008, 122 Stat. 4871; Pub. L. 112-141, div. A, title I, § 1519(c)(6), July 6, 2012, 126 Stat. 575.)

References in Text

Section 104(b)(3)(A) as in effect on the day before the date of enactment of the MAP-21, referred to in subsec. (f)(1), means section 104(b)(3)(A) of this title as in effect on the day before the date of enactment of Pub. L. 112-141, which amended section 104 generally. The date of enactment of the MAP-21 is deemed to be Oct. 1, 2012, see section 3(a), (b) of Pub. L. 112-141, set out as Effective and Termination Dates of 2012 Amendment notes under section 101 of this title.

The date of enactment of the Rail Safety Improvement Act of 2008, referred to in subsec. (1), is the date of enactment of div. A of Pub. L. 110-432, which was approved Oct. 16, 2008.

AMENDMENTS

2012—Subsec. (e)(1). Pub. L. 112-141, §1519(e)(6)(A),

substituted "section 104(b)(3)" for "section 104(b)(5)". Subsec. (f)(1). Pub. L. 112-141, §1519(c)(6)(B), inserted "as in effect on the day before the date of enactment

of the MAP-21" after "section 104(b)(3)(A)". Subsec. (l)(3), (4). Pub. L. 112-141, §1519(c)(6)(C), struck out pars. (3) and (4) which related to rulemaking authority and definitions.

2008—Subsec. (e)(2). Pub. L. 110–244, \$101(1), sub-

stituted "highway safety improvement program purposes" for "purposes under this subsection"

Subsec. (b). Pub. L. 110-432 added subsec. (b). 2005—Subsec. (e). Pub. L. 109-59, §1401(c)(1), formerly §1401(d)(1), as renumbered by Pub. L. 110-244, §101(s)(1), designated existing provisions as par. (1), inserted after

¹So in original.

²So in original. Probably should be "railroad-highway".

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par. designation "IN GENERAL.—Before making an apportionment under section 104(b)(5) for a fiscal year, the Secretary shall set aside, from amounts made available to carry out the highway safety improvement program under section 148 for such fiscal year, at least \$220,000,000 for the elimination of hazards and the installation of protective devices at railway-highway crossings", and added par (2)

crossings.", and added par. (2).
Subsec. (f). Pub. L. 109-59, \$1401(c)(2), formerly \$1401(d)(2), as renumbered by Pub. L. 110-244, \$101(s)(1), reenacted heading without change and amended text of subsec. (f) generally. Prior to amendment, text read as follows: "Twenty-five percent of the funds authorized to be appropriated to carry out this section shall be apportioned to the States in the same manner as sums are apportioned under section 104(b)(2) of this title, 25 percent of such funds shall be apportioned to the States in the same manner as sums are apportioned under section 104(b)(6) of this title, and 50 percent of such funds shall be apportioned to the States in the ratio that total railway-highway crossings in each State bears to the total of such crossings in all States. The Federal share payable on account of any project financed with funds authorized to be appropriated to carry out this section shall be 90 percent of the cost thereof.

Subsec. (g). Pub. L. 109-59, §1401(c)(3), formerly §1401(d)(3), as renumbered by Pub. L. 110-244, §101(s)(1), in third sentence inserted "and the Committee on Commerce, Science, and Transportation," after "Public Works" and substituted ", not later than April 1, 2006, and every 2 years thereafter," for "not later than April 1 of each year".

Subsec. (k). Pub. L. 109-59, \$1401(c)(4), formerly \$1401(d)(4), as renumbered by Pub. L. 110-244, \$101(s)(1), added subsec. (k).

"1998—Subsec. (a). Pub. L. 105–178, §1111(d), substituted "Subject to section 120" for "Except as provided in subsection (d) of section 120 of this title" in first sentence and "subject to section 120" for "except as provided in subsection (d) of section 120 of this title" in second sentence

Subsec. (c). Pub. L. 105–178, 1212(a)(2)(A)(i), substituted "State transportation department" for "State highway department".

Subsec. (j). Pub. L. 105-178, §1202(d), added subsec. (j). 1996—Subsec. (i). Pub. L. 104-205 added subsec. (i).

1995—Subsec. (g). Pub. L. 104-59 substituted "Committee on Transportation and Infrastructure" for "Committee on Public Works and Transportation" in third sentence.

1987—Subsecs. (d) to (h). Pub. L. 100–17 added subsecs. (d) to (h).

EFFECTIVE DATE OF 2012 AMENDMENT

Amendment by Pub. L. 112–141 effective Oct. 1, 2012, see section 3(a) of Pub. L. 112–141, set out as an Effective and Termination Dates of 2012 Amendment note under section 101 of this title.

FEDERAL SHARE OF COSTS FOR CONSTRUCTION TO ELIMINATE HAZARDS

Pub. L. 106–246, div. B, title II, § 2604, July 13, 2000, 114 Stat. 559, provided that: "Notwithstanding any other provision of law, hereafter, funds apportioned under [former] section 104(b)(3) of title 23 which are applied to projects involving the elimination of hazards of railway-highway crossings, including the separation or protection of grades at crossings, the reconstruction of existing railroad grade crossing structures, and the relocation of highways to eliminate grade crossings, may have a Federal share up to 100 percent of the cost of construction."

FEDERAL-STATE COOPERATION

Pub. L. 104–59, title III, § 351(b), (c), Nov. 28, 1995, 109 Stat. 622, 623, provided that:

"(b) SAFETY ENFORCEMENT.—

"(1) COOPERATION BETWEEN FEDERAL AND STATE AGENCIES.—The National Highway Traffic Safety Administration and the Office of Motor Carriers within the Federal Highway Administration shall cooperate and work, on a continuing basis, with the National Association of Governors' Highway Safety Representatives, the Commercial Vehicle Safety Alliance, and Operation Lifesaver, Inc., to improve compliance with and enforcement of laws and regulations pertaining to railroad-highway grade crossings.

"(2) REPORT.—Not later than June 1, 1998, the Secretary shall submit to Congress a report indicating—"(A) how the Department of Transportation

"(A) how the Department of Transportation worked with the entities referred to in paragraph (1) to improve the awareness of the highway and commercial vehicle safety and law enforcement communities of regulations and safety challenges at railroad-highway grade crossings; and

"(B) how resources are being allocated to better address these challenges and enforce such regulations.

"(c) FEDERAL-STATE PARTNERSHIP.—

"(1) STATEMENT OF POLICY.—

"(A) HAZARDS TO SAFETY.—Certain railroad-highway grade crossings present inherent hazards to the safety of railroad operations and to the safety of persons using those crossings. It is in the public interest.—

"(i) to promote grade crossing safety and reduce risk at high risk railroad-highway grade crossings; and

"(ii) to reduce the number of grade crossings while maintaining the reasonable mobility of the American people and their property, including emergency access.

"(B) EFFECTIVE PROGRAMS.—Effective programs to reduce the number of unneeded and unsafe railroad-highway grade crossings require the partnership of Federal, State, and local officials and agencies, and affected railroads.

"(C) HIGHWAY PLANNING.—Promotion of a balanced national transportation system requires that highway planning specifically take into consideration grade crossing safety.

"(2) PARTNERSHIP AND OVERSIGHT.—The Secretary shall encourage each State to make progress toward achievement of the purposes of this subsection."

VEHICLE PROXIMITY ALERT SYSTEM

Pub. L. 102–240, title I, §1072, Dec. 18, 1991, 105 Stat. 2012, provided that: "The Secretary shall coordinate the field testing of the vehicle proximity alert system and comparable systems to determine their feasibility for use by priority vehicles as an effective railroad-highway grade crossing safety device. In the event the vehicle proximity alert or a comparable system proves to be technologically and economically feasible, the Secretary shall develop and implement appropriate programs under section 130 of title 23, United States Code, to provide for installation of such devices where appropriate."

RAILWAY-HIGHWAY CROSSING HAZARDS; NATIONAL HIGHWAY INFORMATION PROGRAM FUNDING

Pub. L. 100–457, title III, § 324, Sept. 30, 1988, 102 Stat. 2150, provided that: "Notwithstanding any other provision of law, the Secretary shall make available \$250,000 per year for a national public information program to educate the public of the inherent hazard at railway-highway crossings. Such funds shall be made available out of funds authorized to be appropriated out of the Highway Trust Fund, pursuant to section 130 of title 23, United States Code."

Similar provisions were contained in the following prior appropriation act:

Pub. L. 100–202, 101(l) [title III, 339], Dec. 22, 1987, 101 Stat. 1329–358, 1329–386.

RAILROAD-HIGHWAY CROSSINGS STUDY AND REPORT

Pub. L. 100-17, title I, §159, Apr. 2, 1987, 101 Stat. 211, directed Secretary of Transportation to conduct a

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study of national highway-railroad crossing improvement and maintenance needs, with Secretary to consult with State highway administrations, the Association of American Railroads, highway safety groups, and any other appropriate entities in carrying out this study, and directed Secretary, not later than 24 months after Apr. 2, 1987, to submit a final report to Congress on results of the study along with recommendations of how crossing needs can be addressed in a cost effective

STUDY AND INVESTIGATION OF ALLEVIATION OF ENVI-RONMENTAL, SOCIAL, ETC., IMPACTS OF INCREASED UNIT TRAIN TRAFFIC

Pub. L. 95-599, title I, §162, Nov. 6, 1978, 92 Stat. 2720, authorized Secretary of Transportation, in cooperation with State highway departments and appropriate officials of local government, to undertake a comprehensive investigation and study of techniques for alleviating the environmental, social, economic, and developmental impacts of increased unit train traffic to meet national energy requirements in communities located along rail corridors experiencing such increased traffic and directed Secretary to report to Congress on results of such investigation and study not later than Mar. 31,

DEMONSTRATION PROJECT, RAILROAD-HIGHWAY CROSS-INGS; REPORTS TO PRESIDENT AND CONGRESS; APPRO-PRIATIONS AUTHORIZATION; HIGHWAY SAFETY STUDY, Report to Congress

Pub. L. 93-87, title I, §163, Aug. 13, 1973, 87 Stat. 280, as amended by Pub. L. 93-643, §104, Jan. 4, 1975, 88 Stat. 2282; Pub. L. 94–280, title I, §140(a)–(e), May 5, 1976, 90 Stat. 444; Pub. L. 95-599, title I, \$134(a)-(c), Nov. 6, 1978, 92 Stat. 2709; Pub. L. 96-470, title II, \$209(b), Oct. 19, 1980, 94 Stat. 2245; Pub. L. 97-424, title I, §151, Jan. 6, 1983, 96 Stat. 2132; Pub. L. 100-17, title I, §§133(c)(3), 148, Apr. 2, 1987, 101 Stat. 172, 181; Pub. L. 100-202, §101(l) [title III, §346], Dec. 22, 1987, 101 Stat. 1329-358, 1329-388; Pub. L. 102–240, title I, § 1037, Dec. 18, 1991, 105 Stat. 1987; Pub. L. 104–66, title I, §1121(e), Dec. 21, 1995, 109 Stat. 724, provided that:

(a)(1) The Secretary of Transportation shall enter into such arrangements as may be necessary to carry out demonstration projects in Lincoln, Nebraska, Wheeling, West Virginia, and Elko, Nevada, for the relocation of railroad lines from the central area of the cities in conformance with the methodology developed under proposals submitted to the Secretary by the respective cities. The cities shall (1) have a local agency with legal authority to relocate railroad facilities, levy taxes for such purpose, and a record of prior accom-plishment; and (2) have a current relocation plan for such lines which has a favorable benefit-cost ratio involving and having the unanimous approval of three or more class 1 railroads in Lincoln, Nebraska, and the two class 1 railroads in Wheeling, West Virginia, and Elko, Nevada, and multicivic, local, and State agencies, and which provides for the elimination of a substantial number of the existing railway-road conflict points within the city.

"(2) The Secretary of Transportation shall enter into such arrangements as may be necessary to carry out a demonstration project in Lafayette, Indiana, for relocation of railroad lines from the central area of the city. There are authorized to be appropriated to carry out this paragraph \$360,000 for the fiscal year ending June 30, 1975.

"(b) The Secretary of Transportation shall carry out a demonstration project for the elimination or protection of certain public ground-level rail-highway crossings in, or in the vicinity of, Springfield, Illinois.

"(c) The Secretary of Transportation shall enter into such arrangements as may be necessary to carry out demonstration projects in Brownsville, Texas, and Matamoros, Mexico, for the relocation of railroad lines from the central area of the cities in conformance with the methodology developed under proposals submitted

to the Secretary by the Brownsville Navigation District, providing for the construction of an international bridge and for the elimination of a substantial number of existing railway-road conflict points within the cit-

ies.

'(d) The Secretary of Transportation shall enter into such arrangements as may be necessary to carry out a demonstration project in East Saint Louis, Illinois, for the relocation of rail lines between Thirteenth and Forty-third Streets, in accordance with methodology approved by the Secretary. The Secretary of Transportation shall carry out a demonstration project for the relocation of rail lines in the vicinity of Carbondale, Illinois

"(e) The Secretary of Transportation shall enter into such arrangements as may be necessary to carry out a demonstration project in New Albany, Indiana, for the elimination of the existing rail loop and relocation of rail lines to a location between Vincennes Street and East Eighth Street, in accordance with methodology approved by the Secretary.
"(f) The Secretary of Transportation shall carry out

demonstration projects for the construction of an overpass at the rail-highway grade crossing on Cottage Grove Avenue between One Hundred Forty-second Street and One Hundred Thirty-eighth Street in the village of Dolton, Illinois, and the construction of an overpass at the rail-highway grade crossing at Vermont Street and the Rock Island Railroad tracks in the city of Blue Island, Illinois.

(g) The Secretary of Transportation shall carry out a demonstration project for the elimination of the ground level railroad highway crossing on United States Route 69 in Greenville, Texas.

'(h) The Secretary of Transportation shall carry out a demonstration project in Anoka, Minnesota, for the construction of an underpass at the Seventh Avenue and County Road 7 railroad-highway grade crossing.

(i) The Secretary of Transportation shall carry out a demonstration project in Metairie, Jefferson Parish, Louisiana, for the relocation or grade separation of rail lines whichever he deems most feasible in order to eliminate certain grade level railroad highway cross-

ings.
"(j) The Secretary of Transportation shall enter into such arrangements as may be necessary to carry out a demonstration project in Augusta, Georgia, for the relocation of railroad lines and for the purpose of eliminating highway railroad grade crossings.

'(k) The Secretary of Transportation shall enter into such arrangements as may be necessary to carry out a demonstration project in Pine Bluff, Arkansas, for the relocation of railroad lines for the purpose of climinat ing highway railroad grade crossings.

(l) The Secretary of Transportation shall carry out a demonstration project in Sherman, Texas, for the relocation of rail lines in order to eliminate the ground level railroad crossing at the crossing of the Southern Pacific and Frisco Railroads with Grand Avenue-Roberts Road.

"(m) The Secretary of Transportation shall enter into such arrangements as may be necessary to carry out a demonstration project in Hammond, Indiana, for the relocation of railroad lines for the purposes of eliminating highway railroad grade crossings.

"(n) The Federal share payable on account of such projects shall be the Federal share provided in section 120(a) of title 23, United States Code. [sic] except those railroad-highway crossings segments which are already engaged in or have completed the preparation of the plans, specifications and estimates (PS&E) for the construction of the segment involved shall retain the Federal share as specified in subsection [sic] 163(n) [this subsection] as amended by section 134 of the Surface Transportation Assistance Act of 1978 [section 134 of Pub. L. 95–599, title I, Nov. 6, 1978, 92 Stat. 2709]. ''[(o) Repealed. Pub. L. 104–66, title I, §1121(e), Dec. 21,

1995, 109 Stat. 724.]

"(p) There is authorized to be appropriated to carry out this section (other than subsection (l)), not to ex§ 131

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ceed \$15,000,000 for the fiscal year ending June 30, 1974, \$25,000,000 for the fiscal year ending June 30, 1975, and \$50,000,000 for the fiscal year ending June 30, 1976, \$6,250,000, for the period beginning July 1, 1976, and ending September 30, 1976, \$26,400,000 for the fiscal year ending September 30, 1977, and \$51,400,000 for the fiscal year ending September 30, 1978, \$70,000,000 for the fiscal year ending September 30, 1979, and \$90,000,000 for the fiscal year ending September 30, 1980, \$100,000,000 for the fiscal year ending September 30, 1981, and \$100,000,000 for the fiscal year ending September 30, 1982, and \$50,000,000 for the fiscal year ending September 30, 1983, and \$50,000,000 for the fiscal year ending September 30, 1984, and \$50,000,000 for the fiscal year ending September 30, 1985, and \$50,000,000 for the fiscal year ending September 30, 1986, and \$15,000,000 per fiscal year for each of fiscal years 1987, 1988, 1989, 1990, 1991, 1992, 1993, and 1994, except that not more than twothirds of all funds authorized and expended under authority of this section in any fiscal year shall be appropriated out of the Highway Trust fund. Notwithstanding any other provision of this section, any project which is not under construction, according to the Secretary of Transportation, by September 30, 1985, shall not be eligible for additional funds under this author

"(q) The Secretary, in cooperation with State highway departments and local officials, shall conduct a full and complete investigation and study of the problem of providing increased highway safety by the relocation of railroad lines from the central area of cities on a nationwide basis, and report to the Congress his recommendations resulting from such investigation and study not later than July 1, 1975, including an estimate of the cost of such a program. Funds authorized to carry out section 307 of title 23, United States Code, are authorized to be used to carry out the investigation and study required by this subsection."

DEMONSTRATION PROJECT, RAILROAD-HIGHWAY CROSS-INGS; INCLUSION OF PROJECTS AT TERRE HAUTE, INDI-ANA

Pub. L. 94-387, title I, §101, Aug. 14, 1976, 90 Stat. 1176, provided in part: "That section 163 of Public Law 93-87 [set out as a note above] is hereby amended to include projects at Terre Haute, Indiana."

RAILROAD-HIGHWAY CROSSINGS

Pub. L. 93–87, title II, \S 203, Aug. 13, 1973, 87 Stat. 283, as amended by Pub. L. 94–280, title II, \S 203, May 5, 1976, 90 Stat. 452; Pub. L. 95–599, title II, \S 203, Nov. 6, 1978, 92 Stat. 2728; Pub. L. 96-470, title II, § 209(d), Oct. 19, 1980, 94 Stat. 2245; Pub. L. 97-327, §5(b), Oct. 15, 1982, 96 Stat. 1612; Pub. L. 97-424, title II, § 205, Jan. 6, 1983, 96 Stat. 2139, which directed each State to conduct a survey of all highways to identify those railway crossings requiring separation, relocation, or protective devices and to establish and implement a schedule of projects for such purpose, which at a minimum was to provide for signs at all crossings, authorized appropriations for elimination of hazards of railway-highway crossings, provided for State apportionments and for the Federal share of the costs of projects, required each State to annually report to the Secretary of Transportation and the Secretary of Transportation to annually report to Congress on progress in implementing railroad-highway crossings program, and authorized use of matching funds with local governments for improvement of railroad crossings, was repealed by Pub. L. 100-17, title I, §121(b), Apr. 2, 1987, 101 Stat. 160.

Highway authorizations provisions of section 104(a)(1) and (2) of Pub. L. 93-87, title I, Aug. 13, 1973, 87 Stat. 251, referred to in section 203(d) of Pub. L. 93-87 provided that:

"(a) For the purpose of carrying out the provisions of title 23, United States Code, the following sums are hereby authorized to be appropriated:

"(1) For the Federal-aid primary system in rural areas, out of the Highway Trust Fund, \$680,000,000 for

the fiscal year ending June 30, 1974, \$700,000,000 for the fiscal year ending June 30, 1975, and \$700,000,000 for the fiscal year ending June 30, 1976. For the Federal-aid secondary system in rural areas, out of Highway Trust Fund, \$390,000,000 for the fiscal year ending June 30, 1974, \$400,000,000 for the fiscal year ending June 30, 1975, and \$400,000,000 for the fiscal year ending June 30, 1976.

and \$400,000,000 for the fiscal year ending June 30, 1976. "(2) For the Federal-aid urban system, out of the Highway Trust Fund, \$780,000,000 for the fiscal year ending June 30, 1974, \$800,000,000 for the fiscal year ending June 30, 1975, and \$800,000,000 for the fiscal year ending June 30, 1976. For the extensions of the Federal-aid primary and secondary systems in urban areas, out of the Highway Trust Fund \$290,000,000 for the fiscal year ending June 30, 1974, \$300,000,000 for the fiscal year ending June 30, 1975, and \$300,000,000 for the fiscal year ending June 30, 1976."

§131. Control of outdoor advertising

(a) The Congress hereby finds and declares that the erection and maintenance of outdoor advertising signs, displays, and devices in areas adjacent to the Interstate System and the primary system should be controlled in order to protect the public investment in such highways, to promote the safety and recreational value of public travel, and to preserve natural beauty.

(b) Federal-aid highway funds apportioned on or after January 1, 1968, to any State which the Secretary determines has not made provision for effective control of the erection and maintenance along the Interstate System and the primary system of outdoor advertising signs, displays, and devices which are within six hundred and sixty feet of the nearest edge of the right-ofway and visible from the main traveled way of the system, and Federal-aid highway funds apportioned on or after January 1, 1975, or after the expiration of the next regular session of the State legislature, whichever is later, to any State which the Secretary determines has not made provision for effective control of the erection and maintenance along the Interstate System and the primary system of those additional outdoor advertising signs, displays, and devices which are more than six hundred and sixty feet off the nearest edge of the right-of-way, located outside of urban areas, visible from the main traveled way of the system, and erected with the purpose of their message being read from such main traveled way, shall be reduced by amounts equal to 10 per centum of the amounts which would otherwise be apportioned to such State under section 104 of this title, until such time as such State shall provide for such effective control. Any amount which is withheld from apportionment to any State hereunder shall be reapportioned to the other States. Whenever he determines it to be in the public interest, the Secretary may suspend, for such periods as he deems necessary, the application of this subsection to a State.

(c) Effective control means that such signs, displays, or devices after January 1, 1968, if located within six hundred and sixty feet of the right-of-way and, on or after July 1, 1975, or after the expiration of the next regular session of the State legislature, whichever is later, if located beyond six hundred and sixty feet of the right-of-way located outside of urban areas, visible from the main traveled way of the system, and erected with the purpose of their message being read from such main traveled way, shall,

U.S. Code - Title 23—Highways, Chapter 3--General Provisions, Section 313 Buy America

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tails to the Federal Highway Administration of officers of the Army, the Navy, and the Air Force, without additional compensation, for technical advice and for consultation regarding highway needs for the national defense. Travel and subsistence expenses of officers so detailed shall be paid from appropriations available to the Department of Transportation on the same basis as authorized by law and by regulations of the Department of Defense for such officers.

(Pub. L. 85-767, Aug. 27, 1958, 72 Stat. 915; Pub. L. 93-87, title I, §152(5), (6), Aug. 13, 1973, 87 Stat. 276.)

AMENDMENTS

1973—Pub. L. 93-87 substituted "Federal Highway Administration" for "Bureau of Public Roads" and "Department of Transportation" for "Department of Commerce"

§313. Buy America

- (a) Notwithstanding any other provision of law, the Secretary of Transportation shall not obligate any funds authorized to be appropriated to carry out the Surface Transportation Assistance Act of 1982 (96 Stat. 2097) or this title and administered by the Department of Transportation, unless steel, iron, and manufactured products used in such project are produced in the United States.
- (b) The provisions of subsection (a) of this section shall not apply where the Secretary finds—(1) that their application would be inconsist
 - ent with the public interest;
- (2) that such materials and products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or
- (3) that inclusion of domestic material will increase the cost of the overall project contract by more than 25 percent.
- (c) For purposes of this section, in calculating components' costs, labor costs involved in final assembly shall not be included in the calculation.
- (d) The Secretary of Transportation shall not impose any limitation or condition on assistance provided under the Surface Transportation Assistance Act of 1982 (96 Stat. 2097) or this title that restricts any State from imposing more stringent requirements than this section on the use of articles, materials, and supplies mined, produced, or manufactured in foreign countries in projects carried out with such assistance or restricts any recipient of such assistance from complying with such State imposed requirements.
- (e) Intentional Violations.—If it has been determined by a court or Federal agency that any person intentionally—
- (1) affixed a label bearing a "Made in America" inscription, or any inscription with the same meaning, to any product used in projects to which this section applies, sold in or shipped to the United States that was not made in the United States; or
- (2) represented that any product used in projects to which this section applies, sold in or shipped to the United States that was not produced in the United States, was produced in the United States;

that person shall be ineligible to receive any contract or subcontract made with funds authorized under the Intermodal Surface Transportation Efficiency Act of 1991 pursuant to the debarment, suspension, and ineligibility procedures in subpart 9.4 of chapter 1 of title 48, Code of Federal Regulations.

- (f) LIMITATION ON APPLICABILITY OF WAIVERS TO PRODUCTS PRODUCED IN CERTAIN FOREIGN COUNTRIES.—If the Secretary, in consultation with the United States Trade Representative, determines that—
- (1) a foreign country is a party to an agreement with the United States and pursuant to that agreement the head of an agency of the United States has waived the requirements of this section, and
- (2) the foreign country has violated the terms of the agreement by discriminating against products covered by this section that are produced in the United States and are covered by the agreement.

the provisions of subsection (b) shall not apply to products produced in that foreign country.

(g) APPLICATION TO HIGHWAY PROGRAMS.—The

(g) APPLICATION TO HIGHWAY PROGRAMS.—The requirements under this section shall apply to all contracts eligible for assistance under this chapter for a project carried out within the scope of the applicable finding, determination, or decision under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), regardless of the funding source of such contracts, if at least 1 contract for the project is funded with amounts made available to carry out this title.

(Added and amended Pub. L. 109–59, title I, §1903(a), (c), Aug. 10, 2005, 119 Stat. 1464, 1465; Pub. L. 112–141, div. A, title I, §1518, July 6, 2012, 126 Stat. 574.)

REFERENCES IN TEXT

The Surface Transportation Assistance Act of 1982, referred to in subsecs. (a) and (d), is Pub. L. 97-424, Jan. 6, 1983, 96 Stat. 2097. For complete classification of this Act to the Code, see Short Title of 1983 Amendment note set out under section 101 of this title and Tables.

The Intermodal Surface Transportation Efficiency Act of 1991, referred to in subsec. (e), is Pub. L. 102–240, Dec. 18, 1991, 105 Stat. 1914. For complete classification of this Act to the Code, see Short Title of 1991 Amendment note set out under section 101 of Title 49, Transportation, and Tables.

The National Environmental Policy Act of 1969, referred to in subsec. (g), is Pub. L. 91–190, Jan. 1, 1970, 83 Stat. 852, which is classified generally to chapter 55 (§ 4321 et seq.) of Title 42, The Public Health and Welfare. For complete classification of this Act to the Code, see Short Title note set out under section 4321 of Title 42 and Tables.

CODIFICATION

Section, as added by Pub. L. 109–59, consists of text of Pub. L. 97–424, title I, $\S165$, Jan. 6, 1983, 96 Stat. 2136; Pub. L. 98–229, $\S10$, Mar. 9, 1984, 98 Stat. 57; Pub. L. 100–17, title I, $\S\S133(a)(6)$, 337(a)(1), (b), (c), Apr. 2, 1987, 101 Stat. 171, 241; Pub. L. 102–240, title I, $\S1048$, title III, $\S3003(b)$, Dec. 18, 1991, 105 Stat. 1999, 2088; Pub. L. 103–272, $\S4(r)$, July 5, 1994, 108 Stat. 1371; Pub. L. 103–429, $\S7(a)(3)(E)$, Oct. 31, 1994, 108 Stat. 4389, which was formerly set out as a note under section 101 of this title, and was repealed by Pub. L. 109–59, title I, $\S1903(d)$, Aug. 10, 2005, 119 Stat. 1465.

PRIOR PROVISIONS

A prior section 313, Pub. L. 85-767, Aug. 27, 1958, 72 Stat. 915, authorized the Secretary to cooperate with

$\S 314$ TITLE 23—HIGHWAYS Page 246

State highway departments and other agencies in the promotion of highway safety and authorized the expenditure of \$150,000 out of the administrative funds made available in accordance with section 104(a) of this title for the purposes of this section, prior to repeal by Pub. L. 89–564, title I, § 102(a), Sept. 9, 1966, 80 Stat. 734. See section 401 et seq. of this title.

AMENDMENTS

2012—Subsec. (g). Pub. L. 112-141 added subsec. (g). 2005—Subsec. (a). Pub. L. 109-59, §1903(c)(1), substituted "to carry out the Surface Transportation Assistance Act of 1982 (96 Stat. 2097) or this title" for "by

this Act or by any Act amended by this Act or, after the date of enactment of this Act, any funds authorized to be appropriated to carry out this Act, title 23, United States Code, or the Surface Transportation Assistance Act of 1978"

Subsec. (b)(3), (4). Pub. L. 109-59, §1903(c)(2), redesig-

subsect (b)(5), (4). This is 18-35, §1803(c)(2), Fedesignated par. (4) as (3).

Subsect (d). Pub. L. 109-59, §1903(c)(3), substituted "the Surface Transportation Assistance Act of 1982 (96 Stat. 2097) or this title that" for "this Act, the Surface Transportation Assistance Act of 1978 or title 23, United States Code, which". Subsec. (e) to (g). Pub. L. 109-59, § 1903(c)(4), (5), which

directed amendment of this section by striking subsec. (e) and redesignating subsecs. (f) and (g) as (e) and (f), respectively, was executed by making the redesignations and by striking out two subsecs. (e), to reflect the probable intent of Congress. The first subsec. (e) based on subsec. (e) of section 165 of Pub. L. 97-424, as originally enacted, repealed section 401 of the Surface Transportation Assistance Act of 1978, Pub. L. 95-599. The second subsec. (e) based on subsec. (e) of section 165 of Pub. L. 97-424, as added by Pub. L. 102-240, §1048(b), related to report on purchases from foreign entities waived under subsec. (b) in fiscal years 1992 and 1993.

EFFECTIVE DATE OF 2012 AMENDMENT

Amendment by Pub. L. 112-141 effective Oct. 1, 2012, see section 3(a) of Pub. L. 112-141, set out as an Effective and Termination Dates of 2012 Amendment note under section 101 of this title.

BUY AMERICA WAIVER NOTIFICATION AND ANNUAL REPORTS

Pub. L. 112–55, div. C, title I, $\S122$, Nov. 18, 2011, 125 Stat. 654, provided that: "Not less than 15 days prior to waiving, under his statutory authority, any Buy America requirement for Federal-aid highway projects, the Secretary of Transportation shall make an informal public notice and comment opportunity on the intent to issue such waiver and the reasons therefor: Provided, That the Secretary shall provide an annual report to the House and Senate Committees on Appropriations on any waivers granted under the Buy America requirements.

Similar provisions were contained in the following prior appropriation acts:

Pub. L. 111-117, div. A, title I, §123, Dec. 16, 2009, 123 Stat. 3048

Pub. L. 111-8, div. I, title I, §126, Mar. 11, 2009, 123 Stat. 928.

Pub. L. 110-161, div. K, title I, §130, Dec. 26, 2007, 121

Pub. L. 110-244, title I, §117, June 6, 2008, 122 Stat. 1607, provided that:

'(a) WAIVER NOTIFICATION.-

"(1) IN GENERAL.—If the Secretary of Transportation makes a finding under section 313(b) of title 23, United States Code, with respect to a project, the Secretary shall—

'(A) publish in the Federal Register, before the date on which such finding takes effect, a detailed written justification as to the reasons that such finding is needed: and

(B) provide notice of such finding and an opportunity for public comment on such finding for a period of not to exceed 60 days.

"(2) LIMITATION ON STATUTORY CONSTRUCTION.— Nothing in paragraph (1) shall be construed to require the effective date of a finding referred to in paragraph (1) to be delayed until after the close of the public comment period referred to in paragraph (1)(B).

'(b) ANNUAL REPORTS.—Not later than February 1 of each year beginning after the date of enactment of this Act [June 6, 2008], the Secretary shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report on the projects for which the Secretary made findings under section 313(b) of title 23, United States Code, during the preceding calendar year and the justifications for such findings.

§314. Relief of employees in hazardous work

The Secretary is authorized in an emergency to use appropriations to the Department of Transportation for carrying out the provisions of this title for medical supplies, services, and other assistance necessary for the immediate relief of employees of the Federal Highway Administration engaged in hazardous work.

(Pub. L. 85-767, Aug. 27, 1958, 72 Stat. 915; Pub. L. 93-87, title I, §152(5), (6), Aug. 13, 1973, 87 Stat. 276.)

AMENDMENTS

1973—Pub. L. 93-87 substituted "Department of Transportation" for "Department of Commerce" and "Federal Highway Administration" for "Bureau of Public Roads''

§315. Rules, regulations, and recommendations

Except as provided in sections 202(a)(5), 203(a)(3), and 205(a) of this title, the Secretary is authorized to prescribe and promulgate all needful rules and regulations for the carrying out of the provisions of this title. The Secretary may make such recommendations to the Congress and State transportation departments as he deems necessary for preserving and protecting the highways and insuring the safety of traffic thereon.

(Pub. L. 85-767, Aug. 27, 1958, 72 Stat. 915; Pub. L. 100-17, title I, §133(b)(18), Apr. 2, 1987, 101 Stat. 172; Pub. L. 105-178, title I, §1212(a)(2)(A)(ii), June 9, 1998, 112 Stat. 193; Pub. L. 112–141, div. A, title I, § 1119(c)(3), July 6, 2012, 126 Stat. 492.)

AMENDMENTS

2012—Pub. L. 112-141 substituted "202(a)(5), 203(a)(3)," for "204(f)"

1998—Pub. L. 105-178 substituted "State transportation departments" for "State highway departments". 1987—Pub. L. 100–17 which directed that this section be amended by substituting "204(f) and 205(a)" "204(d), 205(a), 207(b), and 208(c)" was executed by substituting "204(f) and 205(a)" for "204(d), 205(a), 206(b), 207(b), and 208(c)", to reflect the probable intent of Con-

EFFECTIVE DATE OF 2012 AMENDMENT

Amendment by Pub. L. 112-141 effective Oct. 1, 2012, see section 3(a) of Pub. L. 112-141, set out as an Effective and Termination Dates of 2012 Amendment note under section 101 of this title.

§316. Consent by United States to conveyance of property

For the purposes of this title the consent of the United States is given to any railroad or

Federal Highway Administration Letter – ACTION: Highway Safety Improvement Program Annual Reports, May 11, 2010



Memorandum

SENT VIA ELECTRONIC MAIL

Subject: ACTION: Highway Safety Improvement Program Annual

Reports

From: Joseph S. Toole

Associate Administrator for Safety

In Reply Refer To: HSSP

Date: May 11, 2010

To: Division Administrators

The annual reports required for the Highway Safety Improvement Program (HSIP) are due to the FHWA Division Office by August 31 and to the FHWA Office of Safety no later than September 30. This includes the HSIP report, which includes the High Risk Rural Roads Program, the Railway Highway Grade Crossing Program (RHGCP) report and the Transparency (5 Percent) report.

The HSIP, RHGCP and 5 Percent reports shall be for a defined one year reporting period. It is at the discretion of the SDOT, in consultation with the FHWA Division Office, to define the reporting period. The States have the flexibility to report based on calendar year, Federal fiscal year or State fiscal year. However, the reporting period must be clearly indicated at the beginning of the report and be consistent from year to year.

The reporting guidance for the HSIP, RHGCP and 5 Percent reports remains the same and is available on the Office of Safety Web site as follows:

Highway Safety Improvement Program Report: http://safety.fhwa.dot.gov/safetealu/guides/guide051509.cfm

Railway-Highway Grade Crossing Program Report: http://safety.fhwa.dot.gov/safetealu/guides/guide050506/



2

Transparency (5 Percent) Report:

http://safety.fhwa.dot.gov/safetealu/guides/guide050506/

[The "5 Percent Report" must be submitted in an HTML compatible format (Word and/or Excel) so that it is compliant with the requirements of Section 508. PDF files do not meet the requirements. If the State wishes to include its "5 Percent Report" as a part of its other reports in a PDF format, it should also send a separate "5 Percent Report" in a Word or Excel format.]

Approval to collect this information has been obtained from the Office of Management and Budget (OMB) per OMB Control Number 2125-0025.

All reports should be submitted electronically to Ms. Deena Payton, Office of Safety at deena.payton@dot.gov. For questions related to the HSIP reporting guidance, please contact Ms. Karen Yunk on the HSIP Team by e-mail at karen.yunk@dot.gov or by phone at (609) 637-4207.

Thank you for your continued support in ensuring successful implementation of the HSIP.

cc: Director of Field Services Safety Field

Federal Railroad Administration—Assignment of Crossing Inventory Numbers, March 25, 2009

March 25, 2009

ASSIGNMENT OF CROSSING INVENTORY NUMBERS

Requirement:

All crossings in the United States, public, private and pedestrian, both at-grade and grade separated (underpasses and overpasses) are required by Law (RSIA of 2008) to have a DOT Crossing Inventory Number assigned and the number should be posted at the crossing. The only exception is for a crossing that is to serve temporary construction activities and will not be in place longer than six months. For Crossing Inventory purposes, a crossing is defined as those tracks that exist between a pair of the same type of warning devices.

A crossing inventory number contains six digits followed be an alphabetical letter. The numbers are generated using a special algorithm where the alphabetical letter is a check character to insure that the number is a valid. The number is like a "street-name sign" and should be posted, preferable, on both sides of the crossing on the signal mast, crossbuck post, sign post or pole, or it could even be spray painted on a railroad tie. Responsibility for procuring or making the number signs is the responsibility of the railroad. They are usually made of aluminum, about motorcycle license-plate size, and can be commercially purchased from Keyes-Davis in Battle Creek, Michigan, for between \$8.00 and \$25.00, depending on the number purchased (phone 269-962-7505). As an alternative, the number can be posted on the Emergency Notification System (ENS) sign on both sides of the crossing.

The responsibility for assigning a number to a crossing and for filing the initial inventory report is that of the "Operating Railroad," that is, the railroad that actually operates over the crossing and which would file an accident report if such occurred. This is also the case for crossings that are on private property, such as in a plant area owned by a private corporation, or in a rail yard of the Operating Railroad. If multiple railroads operate over a crossing, then the responsibility falls to the primary railroad that owns and/or maintains the trackage, or dispatches the trains.

Crossings on Private Property and Railroad Yards:

Where there are crossings in a rail yard area belonging to a railroad, a private company, a port, or a dock area, one number can be assigned to include all crossings within the private property limits. The railroad should clearly post that number where the railroad enters the private property, e.g., "All Crossings in this Complex are Assigned Crossing No. 123-456X." The primary purpose of posting the number is to have it easily available to accurately report the location of an accident, if such occurred in a rail yard on railroad property, or in that of a private company.

Assignment of Crossing Numbers:

Valid crossing numbers can be obtained by contacting Thomas Woll, FRA Washington Headquarters, at 202-493-6290, or by email at tom.woll@dot.gov. Please provide the total number of crossing inventory numbers needed (not locations), and the name, title, company, mailing address, phone and fax of the requestor. The valid numbers will be sent by U.S. Mail -

allow about two weeks for delivery. These numbers are to be used for new crossings and for any crossings that have been identified as not having an assigned number (a careful detailed search should be made for any existing number before assigning a new number).

The actual assignment of a number to a crossing is performed by the railroad when the number is placed on a completed Inventory Form, and the Form is returned to FRA for processing into the National File (this processing takes about three months). It is important that this occur as quickly as possible for any existing crossings that do not have a number (see the requirements of the RSIA of 2008).

The U.S. DOT Crossing Inventory Form:

The U.S. DOT Crossing Inventory Form 6180.71 can be obtained from FRA's Office of Safety Website or by contacting Tom Woll. The two-sided single-sheet Inventory Form must be used, and all data must be provided for crossings that are assigned new numbers. The two-sided Form provides for easy photocopying for distribution to appropriate parties.

For <u>public at-grade</u> crossings, the railroad needs to complete Parts I, II, III & IV. The railroad must then send the original completed Form to the appropriate "State Crossing Inventory Contact" (available on FRA's Website) for completion of Part V, Highway Information, and any other State/Highway required data. We suggest that the railroad copy the FRA on the transmittal correspondence. The State will complete Part V, send a copy back to the railroad, and forward the original to FRA for processing into the National Inventory File.

However, as an alternative, it is suggested that the railroad may wish to obtain the Part V directly from a local highway engineer, or the State Inventory Contact, and put the information on the Form before distribution. In that way, the railroad knows that all the required data was provided before it left the control of the railroad. This includes providing the actual data for Latitude and Longitude.

For <u>private</u>, <u>grade-separated</u> (including public) and <u>pedestrian</u> crossings, only Part I information is required. However, FRA will accept and input any additional information that the railroad desires to provide. For private, grade-separated, and pedestrian crossings, the railroad should send the original Form directly to FRA and a copy to the State for information purposes.

Questions or Need for Assistance:

If you have questions or need further assistance regarding the Crossing Inventory Program, the "GX" computer software program for updating inventory data, or the PCAPS/WBAPS accident prediction calculation process, please contact Tom Woll at (202) 493-6290, or via the Internet at tom.woll@dot.gov. Mail completed Inventory Forms to: Thomas P. Woll, Federal Railroad Administration, 1200 New Jersey Ave, SE, Mail Stop - 25, Washington, DC 20590.

U.S. DOT NATIONAL HIGHWAY-RAIL CROSSING INVENTORY

Policy, Procedures and Instructions For States and Railroads

Federal Railroad Administration Office of Safety August 2007

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U.S. DOT NATIONAL HIGHWAY-RAIL CROSSING INVENTORY Policy, Procedures and Instructions for States and Railroads

I. BACKGROUND AND GENERAL INFORMATION:

1. Purpose:

The purpose of the U.S. DOT National Highway-Rail Crossing Inventory Program is to provide for the existence of a uniform national inventory database that can be merged with accident files and used to analyze information for planning and implementation of crossing improvement programs by public and private agencies responsible for highway-rail crossing safety. The National Inventory provides information to Federal, State, and local governments, as well as to the rail industry, for the improvement of safety at highway-rail intersections. The Federal-Aid Highway Act of 1973 (Section 203) requires that each State highway agency maintain an inventory of all public crossings, and accordingly, for the U.S. Department of Transportation (DOT) to establish and maintain a National Inventory of all public, private and pedestrian crossings.

2. National Database Custodian:

From 1972 to 1974, three DOT agencies (the Federal Railroad Administration, the Federal Highway Administration, and the National Highway Traffic Safety Administration), the Association of American Railroads, the American Short Line Railroad Association, and the State highway departments formed a voluntary cooperative effort to develop a comprehensive National Highway-Rail Crossing Information and Numbering System. The rail industry was identified as being responsible for making an on-site inventory of each highway-rail crossing and for forwarding this information to the States and FRA for input into the National Inventory File. The railroads were also responsible for installing a small sign with a unique identifying number on each crossing.

The railroads were identified as being responsible for periodic updates of certain rail oriented inventory data while the state and local highway departments were responsible for the highway related data. In 1975, the National File was completed and officially came into existence. FRA became the custodian for this database for DOT.

3. The Process:

The 1973 Federal-Aid Highway Act (Section 203) requires each State highway agency to maintain an inventory of public highway-rail crossings. The Act also required the railroads to gather that information and provide the States with related railroad information. (States and railroads are herein referred to as agencies) Thus, each State and many railroads maintain a highway-rail crossing inventory that includes all *public* highway-rail crossings, including pedestrian crossings both at-grade and grade-separated (underpasses and overpasses) in the State and almost every railroad maintains an inventory of public, private, and pedestrian crossings both at-grade and grade-separated

thru which the railroad operates in the United States. Additionally, the State and Railroad may desire to maintain a more expanded database for its own use including additional information that is not especially of interest at the national level. Each crossing is to be assigned a US DOT Crossing Inventory Number. This Number is to be posted, preferably, on both sides of the crossing on a signal mast, signpost, pole, or stenciled on nearby equipment.

4. The Crossing Inventory Number:

The US DOT Crossing Inventory Number contains six digits followed by an alpha check character (example: 123 456X). The alpha character is a check to ensure that the number is valid and provides a unique identifying number which was designed to prevent the possibility of error by ensuring that the crossing information is recorded for the correct location. FRA uses a special algorithm to generate the valid crossing number for assignment. (See the "Highway-Rail Crossing Inventory Instructions and Procedures Manual," December 1996, for details.)

The number is like a "street-name sign" and is to be posted, preferably, on both sides of the crossing on a signal mast, crossbuck post, sign post, or pole, or stenciled on a bungalow. Responsibility for procuring or making the number board signs is that of the railroad. The signs are usually made of aluminum, about motorcycle license plate size $(4" \times 9")$ with $1\frac{1}{2}$ inch size numbers/letters, and can be commercially purchased from Keyes-Davis in Battle Creek, Michigan, phone 616-962-7505, for an estimated cost between \$10.00 to \$25.00, depending on the quantity purchased.

Railroad Initials (optional)

123 456 X

U.S. DOT Inventory Number

Sample Inventory Number Sign Posted at Highway-rail Crossings: Specifications: Light-gauge (.032") aluminum, 4" x 9" size, embossed with 1½" numeric-alpha characters, with 4 side slots on each side for mounting. Railroad Initials and U.S. DOT Inventory Number embossed with ½" characters.

The responsibility for assigning the crossing number and for filing the inventory report is that of the "Operating Railroad," that is, the railroad entity that actually operates a train

or other on-track rolling equipment through the crossing. This is often the case for crossings that are on private property such as in a plant area or rail yard owned by a private corporation or railroad. If multiple railroads operate through the same crossing, then the responsibility for inventorying the crossing falls to the operating entity that owns and/or maintains the trackage and signal equipment. Once a crossing number is assigned to a specific crossing at a specific location, it stays with that location and in the National File permanently and may never be reused at another crossing location.

5. Crossings on Private Company or Railroad Property:

Where there are numerous crossings in a yard area belonging to a private company, a port, or a dock area, one number may be assigned to include all crossings within the private property limits. It is suggested that the Railroad clearly post the number where railroad operations enter the private property, e.g., "All Crossings in this Complex are Assigned Crossing No. 123 456X."

Likewise, one crossing number may be assigned to all crossings in a railroad yard, or each crossing may be assigned an individual number. The purpose of this is to have a crossing number to assign to an accident report if an accident should occur in a railroad yard on railroad property.

6. Assignment of Crossing Numbers:

Valid crossing numbers can be obtained from the Federal Railroad Administration (FRA), Highway-Rail Crossing Division, Washington DC, 20590 by contacting FRA at 202-493-6290 or 202-493-6299. Such numbers are used for newly installed crossings and for any crossing that has been identified as not having an assigned number (A careful detailed search should be made before such assignment and before requesting valid numbers.)

The actual assignment of a number to a crossing occurs when the number is placed on a completed Inventory Form and the Form is returned to FRA for processing into the National File (This processing takes about three months.) It is important that this occur as quickly as possible for any existing crossings that do not have a number. The current U.S. DOT Crossing Inventory Form can be obtained from FRA's Office of Safety Website or by contacting the FRA Highway-Rail Crossing Division at 202-493-6290.

7. The Inventory Form:

The "U.S. DOT Crossing Inventory Form" (Form), is a two-page, single-sheet, five-part form that provides for easy photocopying for distribution to appropriate parties. See Appendix A to this Section I for a copy of the "U.S. DOT Crossing Inventory Form" and Appendix B to this Section I for a sample of the Inventory record printout from FRA's Website of crossing inventory data.

The five parts of the Form include the following categories:

Part I. Location and Classification Information

Part II. Railroad Information

Part III. Traffic Control Device Information

Part IV. Physical Characteristics Part V. Highway Information

For new <u>public at-grade</u> crossings, the Railroad is to complete Parts I, II, III and IV and then send the original of the completed Form to the appropriate "State Inventory Contact" for completion of Part V, "Highway Information," and any other State required data. The Railroad should send a copy of the transmittal correspondence to FRA. The State will complete Part V, send a copy back to the Railroad, and forward the original to FRA for processing into the National Inventory File.

For <u>private</u>, <u>grade-separated</u> (including public) highway rail crossings and <u>pedestrian</u> crossings, only Part I information is required, although any additional information that the Railroad desires to provide will be accepted and input into the File. For private, grade-separated, and pedestrian crossings, the Railroad may send the original Form directly to FRA and send the State a copy for information purposes. This simplifies the process for assigning numbers to private crossings.

8. Instructions and Procedures Manual

General instructions for properly inventorying crossings are found in the "Highway-Rail Crossing Inventory Instructions and Procedures Manual," December 1996, published by FRA, Office of Safety. The purpose of the Manual is to set forth the instructions and procedures to provide a uniform, useful, up-to-date, and accurate database for the National Highway-Rail Crossing Inventory Data File and Data Maintenance Program for the States, Railroads and Transit Agencies. This Manual will be updated as changes in procedures occur.

9. Data Fields and Responsibility for Updating:

The Inventory Form has 152 data fields of information. A minimum number of data fields must be supplied before the inventory record will be accepted for input into the National File. The agency (State or Railroad) responsible for submission of specific information is identified in Section III, Updating Responsibility. Procedures have been developed for submission of data on the hardcopy Form or electronically in several different formats. Additionally, FRA can supply a computer program ("GX32") at no cost which allows for establishment and updating of Crossing Inventory data.

10. Additional Data that a Railroad or State Agency may desire to Collect:

In the establishment of a State, Railroad or Transit Agency's inventory database, it may be desireable to collect additional supplemental information about a crossing that is not identified on the US DOT Crossing Inventory Form, and not contained in the National

File. Examples of some of the data fields collected by some States and Railroads are provided below:

- *Manufacturer of Installed Warning Devices
- *Installation Date of Installed Warning Devices
- *Does Crossing have Pedestrian Gates?

11. Need for Assistance

Appendix C contains a listing of many useful Website addresses for the Crossing Inventory Program. This includes how to obtain data, the Inventory Form, State and Railroad Contacts, various related crossing safety program publications, instructions, format for data field structure, railroad names and codes, and more.

For more information, answers to questions, or other assistance regarding the Crossing Inventory Program, the "GX32" computer software program for updating inventory data, or the PCAPS software, contact Thomas Woll at (202) 493-6290, or via the Internet at tom.woll@dot.gov.

APPENDIX A

DEPARTMENT OF TRAN	SPORTATION	DOT CROS	SSINC	INVE	NTORY	FORM	OME	3 Control No. 2130-001	
EDERAL RAILROAD ADMIN A. Initiating Agency	B. Crossing Number (n	ax. 7 char.) C. Rea	son for Up	date				Expires: 7/31/20 D. Effective Date	
20,100	tate		Change Existing	sin	New C	crossing	Closed Crossing or Abandoned	(MM/DD/YYYY	
		Part I: Location	and Cl	assificatio	n Informa	ation			
I. Railroad Oper. Co. (code (ma	x. 4 char.) or name)		2. St	ate (2 char.)	3. Co	ounty (max. 20	char.)		
4. Railroad Division or Region	(max. 14 char.) 5. Railroa	d Subdivision or Distr	ict (max. 1	4 char.) 6.	Branch or L	ine Name (max	. 15 char.)	7. RR Milepost (max. 7 chai (nnnn.nn)	
8. RR I.D. No. (max. 10 char.)	9. Nearest RR Timetable S (optional)	Station (max. 15 char.)	10. 1	Parent RR (m (if applica	ax. 4 char.) able)	11. Crossing	Owner (RR or Compa (if applicable)	ny name)	
12. City (max. 16 char.) (check In one) Near		1	13. Street o	or Road Name (max. 17 char.) STATE SUPPLIED INFORMATION 21. HSR Corridor ID (2 char.)					
14. Highway Type & No. (max.	7 char.) 15. ENS Sign In Yes	stalled (1-800)	16. Quiet 2	Cone No 24 hr		Partial Unknown	22. County Map Ref.	6.* (1.0 Carron 10.0 Carron 10	
	18. Crossing Position	19. Type of Passen	ger Service		Average Pass	enger Train	23. Latitude (max. 10	cnar., nn.nnnnnnn)	
(choose one only) Public	At Grade RR Under	At Grade AMTRAK			Count Per Day	у	24. Longitude (max.	24. Longitude (max. 11 char., nnn.nnnnnnn)	
Private Pedestrian	RR Over	Other			-		25. Lat/Long Source		
26. Is There an Adjacent Crossi	no With a Senarate Number?	None					Actual Estimated		
Yes No		ımber				(7 characters	7)		
7. PRIVATE CROSSING INF	ORMATION								
Farm	Recreational 27.B. Pub Industrial Commercial	lic Access 27.0 Yes No Unknown	☐ s	igns 5	Specify (max.				
28.A. Railroad Use (max. 20 ch	har.)			29.A. State	Use (max	20 char.)			
8.B. Railroad Use (max. 20 ch	nar.)			29.B. State	Use (max. 2	20 char.)			
28.C. Railroad Use (max. 20 char.)				29.C. State Use (max. 20 char.)					
28.D. Railroad Use (max. 20 char.)				29.D. State Use (max. 20 char.)					
30. Narrative (max. 100 char.)									
31. Emergency Contact (Telephone No.) 32. Railroad Contact (Telephone No.)			ct (Telepho	ne No.) 33. State Contact (Telephone No.)		No.)			
MUST C	OMPLETE REMAI	NDER OF FO	RM FC	R PUBI	LIC VEH	ICLE CR	DSSINGS AT	GRADE	
		Part II:	Railroa	d Informa	ition				
I. Number of Daily Train Move I.A. Total Trains 1.B.	ments Total Switching Trains	1.C. Total Daylight	Thru Trai	ns (6 AM to 6	6 PM)	1.D. Cl	neck if Less Than One l	Movement Per Day	
					_				
. Speed of Train at Crossing	2.A. Maximum Time								
Type and Number of Tracks	2.B. Typical Speed Ra				to				
	Main	Other	If		fy (max. 10 ch				
4. Does Another RR Operate a		ACCOUNT A ACCOUNT				erate Over You	r Track at Crossing?		
Yes	If Yes, Specify RI	R (max. 16 char.)		Y			If Yes, Specify RR	(max. 16 char.)	
No				N	0	-			
rm FRA F 6180.71 (11/99)								PAGE	

U.S. DOT CROSSING INVENTORY FORM

B. Crossing Number (max. 7	char.)	PAGE 2 D. Effective Date (MM/DD/YYYY)					
		Part III:	Traffic Contr	ol Device Infor	mation		
1. No Signs or Signals	2. Type of Warning Devi	ice at Crossing - Sig	ens (specify numb	er of each)			
Check if Correct	71		B. Highway Stop Signs (R1-1)				Sign (W10-5) No Unknown
2.E. Pavement Markings			2.F. Other Sign	ns: (specify MUTC	D type)		
Stoplines RR Xing Symbols None Number Specify Type (max. 10 char.)— Number Specify Type (max. 10 char.)—							
3. Type of Warning Device at	Crossing - Train Activate				pe (maxi 10 cm		
3. Type of Warning Device at Crossing - Train Activated Devices (specify number of each) 3.A. Gates 3.B. Four-quadrant (or full barrier) Gates Over Traffic Lane (number) Not Over Traffic Lane (number) Not Over Traffic Lane (number) Not Over Traffic Lane (number)							
3.F. Other Flashing Lights:				3.G. Highway Tr		3.H. Wigwags (number)	3.J. Bells (number)
Number Specify	Type (max. 9 char.)						
3.K. Other Train Activated W (max. 9 char.)	arning Devices: (specify)						
4. Specify Special Warning D	evice NOT Train Activated	(max. 20 char.)		5. Channelization All App	_	Gates One Approach	None
6. Train Detection						N/A	
		Pa	rt IV: Physica	al Characteristi	ics		
1. Type of Development Open Space Residential Commercial Industrial Institutional 0 · 29 0 30 · 59 60 · 90 3. Number of Traffic Lanes Crossing Railroad 4. Are Truck Pullout Lanes Present? S. Is Highway Paved.							
			Yes N	0		Yes No	
6. Crossing Surface (on main line) 1. Timber 2. Asphalt 3. Asphalt 4. Concrete 5. Concrete and Rubber 5. Concrete and Rubber							
6. Rubber	7. Metal		8. Unconsol	lidated	9.	Other (Specify)	
7. Does Track Run Down a Street?							
Yes No Yes No							
Part V: Highway Information							
1. Highway System				of Road at		4. Posted Highway Speed	
5. Annual Average Daily Traffic (AADT) 6. Estimate Percent Trucks Year AADT						Number of School Buses sing per School Day	

Paperwork Reduction Act: Public reporting for this information collection is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a currently valid OMB Control Number. The valid OMB Control Number for this collection is 2130-0017.

APPENDIX B Sample Website Printout of Crossing Inventory Data for One Crossing

U.S. DOT CROSSING INVENTORY INFORMATION AS OF 11/5/02

Part I: Location and Classification Information

Railroad Operating Co.: 2nd Railroad Oper Co.: Ann Arbor RR он Division: Northern Ohio LUCAS County: Subdivision: Toledo Sub City: In / Near **Toledo**Street or Road Name: **MANHATTAN** Branch or Line Name: GALENA ST.BR. 0001.66 Railroad Milepost: 1.66 Highway Type & No.: US 42 2155 Railroad I.D. No .: HSR Corridor ID: Nearest RR Timetable Stn: **TOLEDO** County Map Ref. No.: Ann Arbor RR Ann Arbor RR Parent Railroad: FRA RR Network Linc: Crossing Owner: Latitude: ENS Sign Installed: Longitude: Passenger Service: An Avg Passenger Train Count: 24 Lat/Long Source: Quiet Zone: Amtrak & Commuter Private Crossing Information Industrial Public Access: Yes Signs Specify: Signals Railroad Use: A State Use: A D. D.

Emergency Contact: Railroad Contact: State Contact:

Part II: Railroad Information

Narrative:

Number of Daily Train Movements:

10 Day Thru: 12 Year of Data: 1998

Typical Speed Range Over Crossing: From 40 to 60 mph
Type and Number of Tracks: Main: 2 Other: 2 Specify: Industry Spur

Does Another RR Operate Over Your Track at Crossing? Yes: Adjacent Crossing with Separate Number? Yes: 002345X

Less Than One Movement Per Day: No
Day Thru: 12 Year of Data: 1998

Maximum Time Table Speed 80

Specify: Industry Spur

PC, NS, ATK

GTW

Part III: Traffic Control Device Information

There are No Signs or Signals: NoSigns: Crossbucks: Highway Stop Signs: Advanced Warning: Hump crossing Sign: Other Stop Signs: Other Signs: Pavement Markings: Other: 4 Quad or Full Barrier: Gates: Mast Mounted FL: Total Number FL Pairs: Cantilevered FL Over: Cantilevered FL Not Over: Other Flashing Lights: 2 Specify Type: Highway Traffic Signals:
Other Warning Devices Not Train Activated:
Type of Train Detection:
Traffic Light Interconnection/Preemption: Wigwags: Bells Track Equipped with Train Signals:

Part IV: Physical Characteristics

Type of Development: Commercial Smallest Crossing Angle: 90 Deg
Number of Traffic Lanes Crossing Railroad: 4 Are Truck Pullout Lanes Present? Fes
Is Highway Paved? Fes
Nearby Intersecting Highway: Is it Signalized?
Does Track Run Down Street? No Is Crossing Illuminated? Yes
Is Commercial Power Available? Yes

Part V: Highway Information

Highway System: Fed-Aid Functional Classification: 19 State Highway System: Fed-Aid Annual Average daily Traffic (AADT): 1500 Year: 2000 Posted Highway Speed: 45 mph Estimated Percent Trucks: 20 % Avg. No of School Buses per Day: 12

APPENDIX C

Crossing Inventory Website Addresses

FRA Safety Data Website (Current Crossing Inventory Record, Data, WBAPS): http://safetydata.fra.dot.gov/officeofsafety/

DOT National Crossing Inventory Information - Exploring New Ways to Improve (Outreach): http://www.fra.dot.gov/us/content/801

Highway-Rail Grade Crossing and Trespass Prevention Issues and Publications: http://www.fra.dot.gov/us/content/338

Publications, Studies and Reports on Crossing Safety http://www.fra.dot.gov/us/content/20

DOT Crossing Inventory Form (FRA-F-6180.71):

http://safetydata.fra.dot.gov/officeofsafety/Forms/Default.asp

State Inventory Contacts:

http://www.fra.dot.gov/downloads/safety/stcont100104.pdf

Railroad Inventory Contacts (partial list):

http://www.fra.dot.gov/downloads/safety/rrcont091004.pdf

Inventory Form Instructions (Nov 1999 Draft for current Form): http://www.fra.dot.gov/downloads/safety/Outreach/newfor2.PDF

Highway-Rail Crossing Inventory Instructions and Procedures Manual (December 1996): http://www.fra.dot.gov/us/content/1499

Assignment of Crossing Inventory Numbers:

http://www.fra.dot.gov/downloads/safety/Outreach/Numbers.PDF

Format and Description of Crossing Inventory Data Fields:

http://www.fra.dot.gov/downloads/safety/Outreach/datbyfld22802.PDF http://safetydata.fra.dot.gov/officeofsafety/Downloads/Default.asp

Procedure for Updating the DOT Crossing Inventory File for Public Authorities (Horn Rule): http://www.fra.dot.gov/downloads/safety/update_inventory_rev2.pdf

FRA Auxiliary Tables (List of all Railroad Names and Codes):

http://safetydata.fra.dot.gov/officeofsafety/Downloads/Default.asp

Help for Accessing Crossing Inventory Data (how to do it):

http://safetydata.fra.dot.gov/officeofsafety/NewCrossing/howtoac2.pdf

Accident Prediction and Resource Allocation Procedure

http://www.fra.dot.gov/us/content/1507 http://www.fra.dot.gov/us/content/1465 User Guide, Third Edition Summary Report

Section 130 US Code Statue "Highway-Rail Crossing Improvement Funding" http://www4.law.cornell.edu/uscode/23/130.html

Section 406 US Code Statue "Reports can not be Admitted as Evidence" http://www4.law.cornell.edu/uscode/23/409.html

Questions or need assistance: Contact Tom Woll at 202-493-6290 or via tom.woll@dot.gov

II. INSTRUCTIONS FOR COMPLETING U.S. DOT CROSSING INVENTORY FORM

CONTENTS:

- 1. Recording Instructions
- 2. Heading Information
- 3. Part I: Location and Classification Information
- 4. Part II: Railroad Information
- 5. Part III: Traffic Control Device Information
- 6. Part IV: Physical Characteristic
- 7. Part V: Highway Information

1. RECORDING INSTRUCTIONS

The U.S. DOT Crossing Inventory Form FRA F 6180.71 is one of several methods that can be used to submit crossing inventory updates or changes. The Form consists of two pages, normally printed back-to-back on white paper. The appropriate copies can be made by using photocopy reproduction on standard white paper. The following sections explain the process for completing the U.S. DOT Crossing Inventory Form.

For the National Crossing Inventory, a highway-rail crossing is the intersection (at grade or grade separated) of a roadway, including associated sidewalks and pathways, or a pedestrian walkway with one or more railroad tracks. Paths created by trespassers are not crossings.

DEFINITION: A "Highway-rail grade crossing means a location where a public highway, road, street, or private roadway, including associated sidewalks and pathways, crosses one or more railroad tracks at grade."

- 49 CFR Section 234.5

A crossing on a multi-lane roadway is reported as a single crossing. Also, a crossing includes those tracks that lie between a single set of signs or warning devices. Only one US DOT Crossing Inventory number should be assigned even if the individual tracks belong to more than one railroad company or track owner. There should only be one number assigned even if a railroad track moves diagonally across a highway/highway intersection.

2. <u>HEADING INFORMATION:</u>

A. Initiating Agency

Enter a check mark in the appropriate box (for either Railroad or State) to indicate the type of entity that began completing the form to make this the initiator of the update of an existing record in the crossing inventory or the establishment of a new crossing.

B. Crossing Number

Enter a valid crossing inventory number (6-digits followed by an alpha character). For instructions regarding the acquisition and assignment of crossing numbers, see FRA's Office of Safety Data Website, Safety Data, Crossings, "DOT Crossing Inventory Information".

Railroad Initials 123 456 X U.S. DOT Inventory Number

For the National Crossing Inventory, a highway-rail crossing is defined as the intersection (either at-grade or grade-separated) of a roadway, including associated sidewalks and pathways, or a pedestrian walkway with one or more railroad tracks. Paths created by trespassers are not crossings.

REFERENCE DEFINITION: A "Highway-rail grade crossing means a location where a public highway, road, street, or private roadway, including associated sidewalks and pathways, crosses one or more railroad tracks at grade."

— 49 CFR Section 234.5

A crossing on a multi-lane roadway is reported as a single crossing. Also, by definition for the Crossing Inventory Program, a crossing includes only those tracks that lie between a single set of passive warning signs or active warning devices. (Note: This prevents assignment of a collision to a crossing with mixed types of warning devices.)

Additionally, only one US DOT Crossing Inventory number should be assigned if the individual tracks belong to more than one railroad company or track owner. Also, only one number should be assigned even if the railroad track moves diagonally across the highway/highway intersection.

C. Reason for Update

Enter a check mark in the appropriate box to indicate the reason for submittal of the Form:

- (1) Changes in Existing Data,
- (2) Add a New Crossing
- (3) Closed Crossing or Abandoned

A crossing (or rail line) is officially abandoned after the abandonment action has been approved by the Surface Transportation Board (STB) and then when the railroad confirms to the STB that the abandonment is completed.

D. Effective Date

If a change is being reported, enter the date (MM/DD/YYYY) of the change, when it was completed or put into effect. Ideally, all public, private and pedestrian crossings, including grade-separated, should be updated at least once every three years to at least verify that the crossing still exists. A current effective date should be indicated. If there are no changes in the data and the crossing still exists, an effective date of January 1 of the current year (e.g., 01/01/2006) should be indicated, in lieu of the actual current date.

3. PART I: LOCATION AND CLASSIFICATION INFORMATION

Part I-Item 1. Railroad Operating Company

Enter the valid railroad <u>code</u> for the "operating" railroad company, i.e., the railroad that <u>operates</u> train movements through the crossing. The operating railroad may or may not own and maintain the roadbed, tracks, and signal system controlling the crossing. If the operating railroad company is not the owner of the track, it is suggested that the owner's name be entered in Item 11, *Crossing Owner*. Valid railroad codes can be obtained from, or will be assigned by, FRA. The operating railroad is also responsible for initiating the Inventory record for a new or unnumbered crossing and for submitting Railroad inventory data.

NOTE:

Crossings are assigned to the <u>operating railroad</u>, that is, the railroad company that operates over the trackage where the crossing is located and not necessarily to the owner of the track or property itself, unless it is also the operating railroad. Thus, private company designations such as "XYZ Corporation" should be changed to the name of the <u>railroad that is actually operating</u> on the specific line since it is the operating railroad.

This field allows for a maximum of 4 characters. If the valid Railroad or Company Code is not known, the initiator should contact FRA to obtain the correct code, or to have a new code assigned for a new Railroad or Company. In the latter case, the complete railroad company name, address, telephone number, and a contact person are required.

Part I-Item 2. State

Enter the abbreviation for the State where the crossing is located. If the crossing is located on a State boundary so that parts of the crossing lie in two or more States, agreement must be made between the two States as to which shall claim the crossing for inventory record purposes. When a crossing is located on a State line, it is suggested that the crossing be inventoried by and in the State that is geographically south or east of the crossing.

Part I-Item 3. County

Enter the name of the county where the crossing is located. If the crossing is on a county line so that parts of the crossing lie in two or more counties, a decision must be made to place it in one county only. When a crossing is located on a county line, it is suggested that the crossing be inventoried in the county that is geographically <u>south</u> or <u>east</u> of the crossing.

Part I-Item 4. Railroad Division or Region

Enter the name of the division, region, or major district, if the railroad system is divided into such groups.

Part I-Item 5. Railroad Subdivision or District

Enter the name of the subdivision or other classification, if the railroad system is divided into such groups.

Part I-Item 6. Branch or Line Name

Enter the name of the line or branch as used by the railroad to describe this segment of track. If the track is, for example, an industry lead, industry spur, yard lead, or wye, enter the name of the track or the industry lead.

Part I-Item 7. Railroad Milepost

Enter the railroad milepost number in miles and hundredths of miles (53 feet is approximately 1/100 mile). Enter the number with the decimal point in the following format: (nnnn.nn).

Part I-Item 8. RR I.D. No.

Enter the railroad identification number for the crossing or the track line segment number if the railroad has such a system. If the crossing has an identification number other than the DOT number, such as a State agency number (e.g., a Public Utility Commission (PUC) assigned number), that number may be entered here or in one of the "State Use" fields (Items 29. A - D).

Part I-Item 9. Nearest RR Timetable Station

This is an optional field. Enter the name of the nearest timetable station for the operating railroad company.

Part I-Item 10. Parent RR

If applicable, enter the code for the parent railroad or the company that is parent to the operating railroad entered in Part I, Item 1, *Railroad Operating Company*. The entry must be a valid railroad or company code, which can be obtained from FRA, if unknown.

Part I-Item 11. Crossing Owner (Railroad or Company name)

If applicable, enter the code for the crossing owner, that is, the name of the entity that actually owns the property. The entry must be a valid railroad, company, or agency code (a maximum of 4 characters), and if unknown, can be obtained from FRA.

This field allows for a maximum of 4 characters. If the valid Railroad or Company Code is not known, the initiator should contact FRA to obtain the correct code, or to have a new code assigned for a new Railroad or Company. In the latter case, the complete name of the railroad or other company and its company address, telephone number, and the name of its contact person are required.

Part I-Item 12. City

Enter a check mark to indicate if the crossing is located "In" or "Near" the specified city. If the crossing is not within the boundaries of a city, town, or village, enter a check mark in the box for "Near."

Enter the <u>name</u> of the city, town, or village where the crossing is located (maximum of 16 characters), which must be a valid location within the State. If "In" is checked, the entered city name must be located in the county specified in Part I, Item 3, *County*. If the crossing is on a city line so that parts of the crossing lie in two or more cities, identify only one city. When a crossing is located on a City line, it is suggested that the crossing be inventoried by and in the City that is geographically <u>south</u> or <u>east</u> of the crossing.

NOTE: FRA uses the GSA (General Services Administration) Worldwide Geographic Location Codes known as the FIPS (Federal Information Processing Standards) Codes for city, county, and State names. These codes list the standard numeric and alpha codes that Federal agencies use in designating locations in automatic data processing programs.

The codes for the States, counties, and cities are based on two publications (FIPS 5-1 and FIPS 6-1) issued by the National Bureau of Standards in accordance with the provisions of Public Law 89-306 (the Brooks Act) and the Office of Management and Budget, Circular A-86. Copies of this publication are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402. The codes are also available on diskette or magnetic tape for \$50.00 from the General Services Administration (GSA), Washington, D.C., 20405, telephone: (202) 501-1426.

Government departments and agencies using these codes may request corrections and/or the assignment of new codes for new populated areas having recognized boundaries. Such requests should be submitted in writing to the Public Building Service (PGG), General Services Administration, Washington, D.C., 20405, telephone 202-501-1426. The criteria for assigning additional codes are established by the above-named office.

Part I-Item 13. Street or Road Name

Enter the name of the street or roadway if it has a name. If the roadway is private and it has a name, enter the <u>name</u> of the road or the <u>owner's name</u>, otherwise just enter "private."

Part I-Item 14. Highway Type and No.

Enter the type and number of highway or roadway, such as Interstate (I), U.S. numbered routes (US), State roadways (ST or SH), county roads (C) or CR), local city streets (L or LS), local roads (LR), toll roads (TL), state loop/spur (SL), etc., and the number. Please abbreviate, as I-95, US-1, ST-234, C-2096, etc. The number of the highway should be posted on the highway or found on State or county maps. If there is more than one number, enter the most important route, or all the numbers.

Part I-Item 15. ENS Sign Installed (1-800)

If there is an Emergency Notification System (ENS) sign installed at the crossing, check the box preceding "Yes." Otherwise, check the box preceding "No." The ENS sign may be any sign posted at the crossing that displays a phone number (e.g., a 1-800 number) that the public, State Highway employees, Law Enforcement, and others can use to call to report problems, signal malfunctions, or emergencies at a highway-rail crossing. This sign will also usually display the Crossing Number for the crossing.

Part I-Item 16. Quiet Zone

FRA will populate this field with information from records for existing Quiet Zones. This item will indicate whether or not a quiet zone is in effect for the crossing. If a quiet zone is in effect, this item will indicate if it is for 24 hours per day or only a partial day (usually 10 p.m. to 7 a.m.) This item is for public, private, and pedestrian crossings.

Part I-Item 17. Crossing Type

Enter a check in the appropriate box to indicate the type of crossing. Valid choices are (1) Public, (2) Private, or (3) Pedestrian.

Part I-Item 18. Crossing Position

Enter a check in the appropriate box for the position of the railroad track relative to the roadway. Valid choices are (1) At Grade, (2) Railroad Under, or (3) Railroad Over.

Part I-Item 19. Type of Passenger Service

If there is passenger service over the crossing, enter a check in the appropriate box to indicate the type(s) of passenger trains using this crossing. Valid values are:

- AMTRAK only
- AMTRAK and Other (commuter, tourist, etc.)
- Other, including commuter, tourist, etc.
- None (no passenger service)

Part I-Item 20. Average Passenger Train Count Per Day

Enter the average number of passenger trains using this crossing, per day, on a typical operating day. The value may not exceed the total train count in Part II, Item 1, [Typical Average] Number of Daily Train Movements, 1.A. Total Trains. If the passenger type in

Part I, Item 19, Type of Passenger Service is "None," then the passenger train count should be 0.

Part I-Item 21. HSR Corridor ID

This field is used to identify the "Section 1010" or "Section 1103" high-speed rail corridor on which the crossing is located. If the crossing is located on such a corridor, enter the High Speed Rail (HSR) Corridor Identifying Code, a four character code (ABC#) as defined in Appendix A. The corridor may be divided into logical sections by including a numeric number (1 - 9) for the "#" character. If a numeric number is not used, replace "#" with "X". FRA will assign an HSR ID Code for any corridor, or portion thereof, that is not currently defined in the Appendix.

NOTE: Currently, this field only accepts two characters. It will be expanded to four characters when the Form is modified, sometime in the future. Until then, insert this information in Item 29.D, or if inserted in Item 21, FRA will temporarily insert it in Item 29.D.

Part I-Item 22. County Map. Ref. No.

Enter the county map identification or other reference number provided by the highway agency to specifically identify the crossing on the street and roadway system. If it is not available, leave this entry blank.

Part I-Item 23. Latitude

Enter the latitudinal coordinate as measured at the center of the crossing. This field, along with Longitude, is used to identify the crossing location using a standardized GPS (Global Positioning System) location point. The desired measurement values are in "degrees.decimal degrees" and Latitude should be entered in decimal form as (nn.nnnnnn). At least five decimal places are required, which translates to an accuracy of within four feet. The acceptability or unacceptability of decimal measurements can be summarized as follows:

Four Decimal places are marginal and not acceptable Five Decimal places are minimum and acceptable Six Decimal places are preferred Seven Decimal places are ideal if available

Use of Degrees/Minutes/Seconds is not acceptable. The equation to convert latitude from degrees, minutes, seconds to decimal form is as follows:

Latitude in Decimal Format = Degrees + (Minutes divided by 60) + (Seconds divided by 3600)

NOTE: The FRA Office of Safety is using the WGS-84 (World Geodetic System 1984) datum standard. (A datum is the measurement [shape] of the earth's ellipsoid.) The WGS-84 is the international version of the NAD-83 Standard (North American Datum 1983). The standard datum for the United States National Grid (USNG) is the North

American Datum 1983 (NAD-83) or its international equivalent, the World Geodetic System 1984 (WGS-84).

Federal government mapping agencies have adopted the NAD-83 as the US National Standard. However, many existing maps are still referenced to the North American Datum 1927 (NAD-27). When it is necessary to identify a point on NAD-27 Standard, the coordinates of a point are designated by "(NAD 27)" after the coordinate. Coordinates in NAD-83 have nothing behind them - NAD-83 is implied. The USNG is identical to the Military Grid Reference System (MGRS) and is designed for use with the WGS-84 over U.S. areas and with NAD-83.

Latitude/Longitude Coordinate Ranges within the contenintal United States:

Latitude values range from 24 to 49 degrees.

Longitude values range from -65 to -124 degrees.

Alaska Latitude values range from 50 to 71 and Longitude from -129 to -168.

Part I-Item 24. Longitude

Enter the longitudinal coordinate as measured at the center of the crossing. This field, along with Latitude, is used to identify the crossing location using a standardized GPS location point. The desired measurement values are in "degrees.decimal degrees" and Longitude should be entered in decimal format (nnn.nnnnnnn). However, it will be processed as a negative value. At least 5 decimal places is required which translates to an accuracy of within 4 feet. Acceptance of decimal measurements can be summarized as follows:

Four Decimal places are marginal and not acceptable Five Decimal places are minimum and acceptable Six Decimal places are preferred Seven Decimal places are ideal if available

Use of Degrees/Minutes/Seconds is not acceptable. The equation to convert latitude from degrees, minutes, seconds to decimal form is:

Latitude in Decimal Format = Degrees + (Minutes divided by 60) + (Seconds divided by 3600)

Part I-Item 25. Lat/Long Source

Enter a check in the appropriate box to indicate the Source, "Actual" or "Estimated," of the Latitude and Longitude coordinate values being provided, Actual values are those where GPS measurements are taken at the crossing or determined by a positive identification method. Otherwise, the values are indicated as "Estimated." Latitude and Longitude values, in general, should be measured at the center of the highway-rail crossing.

Currently, the Lat/Long Source (LLSOURCE) field is coded as:

1 = Agency Actual

2 = Agency Estimated

3 = Federal Actual

4 = Federal Derived

Blank=Neither

Note: In 1997, FRA hired a contractor to determine (by interpolation) the latitude and longitude of about 80% of the crossings in the Nation. In January 1999, these values were inserted into the National file and are shown as "Estimated." Since then, several States and Railroads have updated these values with actual measured data.

Part I-Item 26. Is There a [Parallel] Adjacent Crossing With a Separate Number?

Enter a check in the appropriate box to indicate whether or not there is an adjacent crossing with a separate number. If there is, enter the valid crossing number (6-digits followed by an alpha character).

An "Adjacent Crossing With a Separate Number" is a crossing that is basically parallel to the tracks of the crossing listed in Item B. and where one might consider all tracks in this vicinity as part of one crossing. See definition of crossing under "B. Crossing Number."

Note: There should only be <u>one</u> crossing number assigned to a crossing (defined as the tracks that lie between the same pair of warning devices), regardless of how many railroads may own tracks that traverse the crossing. There may be cases where two mainline tracks, owned and maintained by two different railroads, traverse a crossing, with each of these railroads having assigned a separate crossing number for the crossing. If this situation exists, one of the numbers should be deleted (closed) and one of the railroads involved should claim the crossing and list the other railroad(s) as "operating across the same crossing."

Part I-Item 27. PRIVATE CROSSING INFORMATION

When the type of crossing is **Private**, this item must be completed. Paths created by trespassers are not crossings with private ownership.

Part I-Item 27.A. [Private Crossing] Category

Enter a check in the box that best describes the usage of the private crossing based on the following categories:

Category Descriptions:

Farm. A farm crossing is any crossing used for the movement of farm motor vehicles, farm machinery or livestock in connection with agricultural pursuits, forestry, or other land-productive purposes.

Residential. A residential crossing is any crossing used to provide vehicular access for residence owners.

Recreational. A recreational crossing is any crossing used to provide access to recreation areas.

Industrial. An industrial crossing is any crossing used to provide access to industrial plant facilities or other industrial areas.

Commercial. A commercial crossing is any crossing used to provide access to privately owned commercial facilities that openly invite and solicit the general public as patrons (e.g., shopping centers and stores).

Part I-Item 27.B. [Private Crossing] Public Access

Enter a check in the box to indicate "Yes" if the private crossing is open to the general public for access, or "No" if it is not, or "Unknown" if its status is not known. Examples where "Yes" is appropriate are shopping centers, certain residential areas, fairgrounds, parks, schools, libraries, hospitals, clinics, airports, bus terminals, beaches, piers, boat launching ramps, and recreational facilities.

Part I-Item 27.C. [Private Crossing] Signs/Signals

Enter a check in the appropriate box(s) for the type(s) of crossing warning device(s). If signs and/or signals exist, enter a brief description in the space provided.

Part I-Items 28.A., 28.B., 28.C., and 28.D. Railroad Use

The railroad may enter any text or data of its choice in these fields. No editing will be performed on these fields.

Part I-Items 29.A., 29.B., 29.C., and 29.D. State Use

The State may enter any text or data of its choice in these fields. No editing will be performed on these fields. It is suggested that a State that has a separate PUC number for a crossing may wish to use one of these fields for this purpose. (For those States that have used the RR I.D. field for this in the past, FRA will move that data to Item 29 if requested.)

Part I-Item 30. Narrative

Enter any narrative comments desired in this field. No editing will be performed on this field.

Part I-Item 31. Emergency Contact (Telephone No.)

Enter the telephone number (area code and phone number) for the Emergency Notification System Contact (e.g., usually Railroad Police, Dispatch Center, or other Railroad Emergency Contact) associated with the crossing. This should be a 24-hour number for an Emergency Notification Center which can send emergency responder(s) to the crossing in the event of problems, signal malfunctions, or other emergencies which are reported at the crossing. Normally, this will be the ENS telephone number used by the railroad and posted at the crossing. (This field can be updated in mass by contacting FRA.)

Part I-Item 32. Railroad Contact (Telephone No.)

Enter the telephone number (area code and phone number) of the railroad contact associated with the crossing. This would normally be the Railroad Inventory Contact or Public Projects Engineering Coordinator. (This can be performed as a mass update by contacting FRA.)

Part I-Item 33. State Contact (Telephone No.)

Enter the telephone number (area code and phone number) of the State highway contact associated with the crossing. This would normally be the State Inventory Contact or the DOT Engineering Contact (such as the Section 130 State Contact) responsible for crossing improvement projects. (This can be performed as a mass update by contacting FRA.)

4. PART II: RAILROAD INFORMATION

NOTE:

If the crossing is Public at-Grade, Parts I, II, III, IV, and V **must** be completed before the data can be entered into the file. For Private at-Grade crossings, only Part I information is required. However, if additional data for Parts II-IV are provided, that data will be entered into the file.

Part II-Item 1. [Typical Average] Number of Daily Train Movements

Enter the typical average number of train movements through the crossing and the number of switching movements through the crossing on a normal operating day. The Typical Average Number of Daily Train Movements means the normal or average number of daily trains moving across the crossing. Include the total number of the train movements for both the reporting "operating" railroad and any other railroad operating over the crossing. "Through Trains" are trains whose primary responsibility is to operate over a route with defined beginning and end points.

Part II-Item 1.A. Total Trains

Total Trains are the total of the number of through trains and switching trains per day (daylight [6 am - 6 pm] and night [6 pm - 6 am]) through the crossing during normal

railroad operating periods. Include the total number of the train movements for both the reporting "operating" railroad <u>and</u> any other railroad operating over the crossing.

Part II-Item 1.B. Total Switching Trains

Total Switching Trains are the number of switching trains through the crossing per day during normal railroad operating periods. "Switching Trains" are those trains whose movements are to provide services (pickup and set-out of cars) for various industries and/or rail yards, and where such back and forth movements exist at the crossing. Each movement in one direction counts as one train movement. All locals, industrial runs and switch engines would be classified as switching movements. However, do not include such trains when they travel over the crossing like a through train to get to their destination to perform their switching operations.

Part II-Item 1.C. Total Daylight Thru Trains (6 A.M. to 6 P.M.)

Total Daylight Thru Trains are the number of through trains through the crossing between the hours of 6 AM and 6 PM. "Through Trains" are trains whose primary responsibility is to operate over a route with defined beginning and end points.

Note: For data integrity purposes, it is recommended that when entering the above counts, that a quick check be made to be sure that the Total Trains is greater than, or equal to, the sum of the Total Switching Trains and the Total Daylight Thru Trains.

Part II-Item 1.D. Check if Less Than One Movement Per Day

Enter a check in the box if train frequency is less than one train per day.

Part II-Item 2. Speed of Train at Crossing

Part II-Item 2.A. Maximum Timetable Speed

Enter the maximum timetable speed in miles per hour (mph). This field must be greater than or equal to the maximum value in Item 2.B, *Typical Speed Range Over Crossing*.

Part II-Item 2.B. Typical Speed Range Over Crossing

Enter the typical minimum speed ("from") through the crossing in miles per hour (mph). This must be equal to or less than the maximum timetable speed in Item 2.A.

Enter the typical maximum speed ("to") through the crossing. This must not be greater than the maximum timetable speed in Item 2.A. and must not be less than the typical minimum speed range.

Part II-Item 3. Type and Number of Tracks

Enter the number of "Main" line tracks, and enter the number of any "Other" tracks. If there are "Other" tracks, the type of other tracks should be specified. A track is considered "Main" if through trains operate on the track.

Part II-Item 4. Does Another RR Operate a Separate Track at Crossing?

Enter a check mark in the appropriate box to indicate if another railroad operates a separate track at the crossing. If "Yes," enter the FRA railroad code for all railroads that operate a <u>separate</u> track <u>within the same pair of warning devices</u> at the crossing. Up to four railroad codes, with up to four characters each may be entered in this field.

Part II-Item 5. Does Another RR Operate Over Your Track at Crossing?

Enter a check mark in the appropriate box to indicate if another railroad operates over the reporting railroad's track at the crossing. If "Yes," enter the FRA railroad code for all railroads that operate trains over the track at the crossing. Up to four railroad codes, with up to four characters each may be entered in this field.

5. PART III: TRAFFIC CONTROL DEVICE INFORMATION

All appropriate warning devices may be indicated, but as a minimum, the highest level of warning device must be provided.

FRA classifies warning devices <u>for Public at-Grade crossings</u> in "Warning Device Categories," referred to as the "WD CODE." These Warning Device Categories ONLY apply to Public at-Grade crossings and have an assigned hierarchy based on their level of warning. The WD Codes are as follows:

- 9 Four Quad (or full barrier) Gates
- 8 Gates (normally Two Quadrant)
- 7 Flashing Lights (Standard and Cantilever type units)
- 6 Highway Traffic Signals, Wigwags, Bells, or other activated devices
- 5 Special Active Warning Devices (usually flagman)
- 4 Stop Signs
- 3 Crossbucks
- 2 Other Signs or signals
- 1 No signs or signals

Part III-Item 1. No Signs or Signals

Enter a check to indicate if no signs or signals are present. If no signs or signals are present, there is no need to complete Items 2 or 3.

NOTE: While there may be some rare exceptions, normally as a minimum, crossbucks are required at all public at-grade crossings.

Part III-Item 2. Type of Warning Device at Crossing - Signs (specify number acach)

NOTE: If more than one type of warning device is present, indicate all applicable types of warning device(s). Enter a "9" where the number is 9 or greater. Provide short descriptions of "Other" devices in the appropriate spaces.

Part III-Item 2. A. Crossbucks (R15-1)

Enter a count of the number of <u>masts or posts</u> with mounted crossbucks, <u>not</u> a count of the number of crossbuck signs. Two or more crossbucks mounted on a single post are counted as one unit. Include <u>all</u> masts with crossbucks without distinction as to the reflectivity type. If the crossing has a train activated warning device (flashing lights [cantilevered or mast mounted] and/or gates), do not count the individual number of crossbucks mounted on these devices. Note: The number-of-tracks sign is Manual on Uniform Traffic Control Devices (MUTCD) R15-2.

Part III-Item 2. B. Highway Stop Signs (R1-1)

A Standard Highway Stop Sign (R1-1) is red with white letters and has eight sides as defined in the Manual on Uniform Traffic Control Devices (MUTCD). Stop Signs must be in compliance with the MUTCD R1-1 to be counted. Enter the number of separate posts or masts with stop signs, regardless of any other type of warning devices. YIELD signs (MUTCD R1-2) should be indicated in Item 2.F.

Part III-Item 2. C. RR Advance Warning Signs (W10-1)

Enter a check in the appropriate box to indicate the existence of advance warning sign(s) along the highway approaches that are in compliance with the MUTCD (W10-1). Normally, this will be on both sides of a crossing.

Part III-Item 2. D. Hump Crossing Sign (W10-5)

Enter a check in the appropriate box to indicate whether or not high profile hump surface signs are present at the crossing, or such are scheduled for installation in the immediate future. The standard Advance Warning Signs for High-Profile Crossings is identified in the MUTCD as W10-5. Non-standard warning signs or advisories should be listed in "Other Signs."

Part III-Item 2. E. Pavement Markings

Enter a check in the appropriate box for each type of pavement marking present that conforms to the MUTCD. If both Stop Lines and RR crossing symbols are present, check both boxes. If neither Stoplines nor RR crossing symbols are present, check "None."

Part III-Item 2. F. Other Signs

Enter the number and specify the type of any other passive signs at the crossing. This includes YIELD signs (R1-2) and any W10-2, 3, or 4 signs installed on a highway that is parallel to the railroad tracks. Specify the MUTCD Type.

Part III-Item 3. Type of Warning Device at Crossing - Train Activated Devices (specify number of each)

Part III-Item 3. A. Gates

Enter the number of gates. Include in the count <u>all</u> gates without making a distinction as to the color or reflectivity of the gate arms. Do not include Pedestrian Gates.

A gate mechanism includes flashing light units and the standard crossbuck sign as part of the warning device. Therefore, when gates are present, flashing light units and crossbucks should not be counted unless there are additional such devices in place.

NOTE: Refer to Appendix B for definitions of the various types of Gated Crossings (Two, Three and Four Quadrant) and Full Barrier, and how to report them in the Inventory.

Part III-Item 3. B. Four-quadrant (or full barrier) Gates

Enter a check in the appropriate box to indicate whether or not four-quadrant (or full barrier) gates are present at the crossing. Full barrier gates apply in the case of one-way streets or where the gate arms reach across the entire roadway. See Appendix B for definitions.

Part III-Item 3. C. Cantilevered (or Bridged) Flashing Lights

If the flashing light system consists of a vertical structure that has a cantilevered beam over the roadway (may be bridged construction), then count the number of such structures. Enter the number of cantilevered (or bridged) flashing light structures in the appropriate block. Separate cantilevered structures into those over traffic lanes and those not reaching the roadway (over only parking lanes, turnout lanes, or shoulders). Count individual cantilever structures only. Do not count the number of lights nor the number of crossbucks mounted on these structures, unless there are separate devices installed on separate masts or posts. (Cantilevered structures are not to be counted as mast mounted flashing light systems. There is provision for counting the number of light pairs in Item 3.E.)

Part III-Item 3. D. Mast Mounted Flashing Lights (number of masts)

Count only the number of masts with flashing light units, not the number of lights. Count all lamp unit assemblies on a single mast as one unit. There is provision for counting the number of light pairs in Item 3.E.

A flashing light mechanism includes the standard crossbuck sign as part of the warning device. Therefore, when Flashing Lights are indicated, do not count the number of

crossbucks unless there are additional units mounted on separate poles or posts (e.g., facing a side road).

Part III-Item 3. E. Number of Flashing Light Pairs

Enter the total number of pairs of flashing lights mounted on signal masts and on cantilever (or bridge) structures and/or on other masts or poles.

Part III-Item 3. F. Other Flashing Lights

Enter the number of any other flashing lights not in accordance with the MUTCD and specify the type.

Part III-Item 3. G. Highway Traffic Signals (number)

Count and enter only the number of highway traffic signals (red-yellow-green) that are <u>train activated</u> and which directly control highway/street traffic <u>over the crossing</u>. <u>Do not count</u> highway traffic signals controlling a nearby intersection even if they are interconnected with the railroad warning system control circuitry.

Part III-Item 3. H. Wigwags (number)

Enter the number of wigwag signals. Count all wigwags individually.

Part III-Item 3. J. Bells (number)

If present, count and enter the number of all bells that are either alone or are a part of other train activated warning device systems.

Part III-Item 3. K. Other Train Activated Warning Devices

List any train activated devices not otherwise specified, such as an arrester net or other technology.

Part III-Item 4. Specify Special Warning Device NOT Train Activated

Enter the type of any special warning device which is not train activated. Examples of special warning devices not train activated are:

- a. Manually operated signals and/or gates
- b. Train crew flagging the crossing (flag-man)
- c. Watchman
- d. Floodlights that are train activated

For watchman and for manually operated gates, the number of hours daily in effect should also be indicated. For floodlighting, the number of masts with lights should be reported. Only floodlighting which is distinctive from ordinary street lighting in intensity, light distribution, focus or color is to be reported.

Part III-Item 5. Channelization Devices With Gates

Enter a check in the appropriate box to indicate whether or not there are highway channelization devices (or median barriers) with gates at the crossing. If channelization devices are present, indicate if they are on all approaches or just one approach. It is suggested that the length of the channelization devices be indicated in the *Narrative* field, Part I, Item 30.

Part III-Item 6. Train Detection

Enter a check to indicate the type of train detection used at the crossing. This applies to active crossings only. An "Active Crossing" is one where the warning devices are activated by the arrival of the train and include such devices defined by WD CODE 5-9 in the beginning of Part III. If the crossing is not active (WD = 1-4), "None" should be checked. The choices are:

- Constant Warning Time (or Predictors)
- Motion Detectors
- DC/AFO
- Other
- None

Part III-Item 7. Signaling for Train Operation: Is Track Equipped with Train Signals?

Enter a check to indicate whether the track has train operation or interlocking signals to control train operations.

Part III-Item 8. Traffic Light Interconnection/Preemption

Enter a check in the appropriate box to indicate the type of crossing interconnection/preemption.

DEFINITIONS:

The following are definitions for highway and rail signal interconnections. The definitions that are in italics are those established by the Technical Working Group (TWG) for Rail-Highway Intersections:

- 1. **Interconnection:** The electrical connection between the railroad active warning system and the traffic signal controller assembly for the purpose of preemption.
 - Interconnection consists of an electrically connected control circuit at a highwayrail intersection which has railroad active warning devices utilizing a supervised closed-circuit principle activated by the approach or presence of a train and which is used to preempt the normal operation of a highway traffic signal.
- 2. **Preemption**: The transfer of the normal operation of traffic signals to a special control mode.

Preemption is the activity when, as a result of a signal received from the railroad active warning device system, the normal operation of a highway traffic signal is interrupted and transferred to a specific programmed sequence.

3. **Simultaneous Preemption**: The notification of an approaching train is forwarded to the highway traffic controller unit or assembly and the railroad active warning devices at the <u>same time</u>.

Simultaneous Preemption is the activity when the highway traffic signal controller receives notice from the interconnection control circuitry and is activated at the <u>same time</u> as the railroad active warning system. Usually, this will be used to prohibit highway vehicular traffic from traversing through the crossing intersection.

4. *Advanced Preemption*: The notification of an approaching train is forwarded to the highway traffic controller unit or assembly by the railroad equipment for a period of time <u>prior</u> to activating the railroad active warning devices.

Advance Preemption is the activity when the highway traffic signal controller receives notice from the interconnection control circuit <u>before</u> the railroad active warning system is activated (usually 20-25 seconds before train arrival) to interrupt the signal's normal operation to begin its specific programmed sequence. Usually, this will be used to move the highway vehicular traffic through a storage area between the highway-rail intersection and the highway-highway intersection well before the railroad active warning devices start to operate to clear the crossing and eliminate the potential of vehicular entrapment on the crossing.

Part III-Items 9-12. Reserved for Future Use

These items are reserved for future use. No input is required.

6. PART IV: PHYSICAL CHARACTERISTICS

Part IV-Item 1. Type of Development

Enter a check in the appropriate box which best describes the predominant type of development in the vicinity (up to 1000 feet) of the crossing based on the following categories:

Open Space.
 Residential.
 Commercial.
 Industrial.
 Sparsely developed, lightly populated, and/or agricultural. Built-up residential area.
 Retail stores and businesses, offices, and/or personal services.
 Manufacturing, construction, heavy products, factories,

and/or warehouses.

 Institutional. Schools, churches, hospitals, parks, and/or other community facilities.

Part IV-Item 2. Smallest Crossing Angle

Enter a check in the appropriate box that most closely describes the smallest angle between the highway and the track. (The angle may be estimated by eye or with a simple device, such as a protractor.)

Part IV-Item 3. Number of Traffic Lanes Crossing Railroad

Enter the total number of through traffic lanes crossing the railroad track. Include all traffic lanes for the entire roadway width. Do not include shoulders or lanes that may be used for parking.

Part IV-Item 4. Are Truck Pullout Lanes Present?

Enter a check in the appropriate box for special added lanes provided to accommodate commercial vehicles (trucks, buses, etc.) that are required to stop at the crossing.

Part IV-Item 5. Is Highway Paved?

Enter a check in the "Yes" box if the highway is paved with material on which pavement markings can be effectively maintained. Enter a check in the box preceding "No" if the highway surface is gravel, dirt, or has a surface treatment on which markings cannot be maintained.

NOTE: It is recommended that a review be made to coordinate this item with Part III-Item 2.E, "Pavement Markings." Specifically, if there are "Pavement Markings," then this Item can not be "No".

Part IV-Item 6. Crossing Surface (on main line)

Enter a check in the appropriate box that most closely fits one of the following descriptions. If there are multiple tracks that have different types of surfaces, indicate the lower grade surface material on the Inventory Form.

1. **Timber.** Includes Sectional Treated Timber and Full Wood Plank:

Sectional Treated Timber is prefabricated units, of treated timber, approximately 8 feet in length, individually installed and removable for maintenance and replacement purposes. Full Wood Plank is a timber surface that covers the entire crossing area above the crossties and made of ties, boards, bridge ties, etc.

- 2. **Asphalt**. Asphalt surface over the entire crossing area.
- 3. **Asphalt and Flange.** Asphalt surface in the area between flange timber planks or other material forming flange-way openings which may include the use of rubber.
- 4. Concrete. Includes Concrete Slab and Concrete Pavement.

Concrete Slab is precast concrete sections that are usually individually installed and removable for maintenance and replacement purposes. Concrete Pavement is a concrete surface that is continuous over the track area and is not removable except by destruction of the surface.

- Concrete and Rubber. An installed crossing surface that consists of both concrete and rubber materials.
- 6. **Rubber**. Preformed rubber sections that are usually individually installed and removable for maintenance and replacement purposes.
- 7. **Metal.** Includes Metal Sections and Other Metal.

Metal Sections are unit pieces of steel or other metal that are usually individually installed and removable for maintenance and replacement purposes. Other Metal includes other metal materials that are usually not removable in sectional units and that provide complete coverage of the crossing area within the track.

- 8. **Unconsolidated**. Ballast or other unconsolidated material placed over crossties, with or without planks, on one or both sides of the running rails.
- 9. Other (Specify). Surfaces other than the previously described surfaces and would include structural foam, plastic, "high-tech," etc.

Part IV-Item 7. Does Track Run Down a Street?

Enter a check in the appropriate box for whether or not the crossing involves a railroad track that is parallel to and within a street or highway.

Part IV-Item 8. Nearby Intersecting Highway?

Enter a check in the appropriate box for the condition where the street or highway at this crossing is intersected by another street or highway and at what approximate distance from the crossing. Valid values are:

Yes, within 500 feet = Less than 75 feet; 75 to 200 feet; 200 to 500 feet No, or greater than 500 feet = N/A

Is it Signalized?

Enter a check mark in the "Yes" or "No" to indicate if the nearby intersecting highway contains traffic signals.

Part IV-Item 9. Is Crossing Illuminated? (street lights within applicant 50efactst rail)

An Illuminated Crossing is defined as when overhead street lighting provides reasonable illumination of trains present at the crossing and is within approximately 50 feet of the crossing. If street lights are present within 50 feet of the nearest rail, the "Yes" box should be checked. Since street lamp light-intensity can vary, sufficient lighting may be present for street lights located up to 100 feet from the crossing.

Part IV-Item 10. Is Commercial Power Available?

Enter a check to indicate if there is commercial electric power available within 500 feet of the crossing.

Part IV-Item 11. Space Reserved for Future Use

This item is reserved for future use. No input is required.

7. PART V: HIGHWAY INFORMATION

Part V-Item 1. Highway System

Enter a check for the correct Highway System Code.

The Highway System Codes for the National Highway-Rail Crossing Inventory File were revised as a result of the 1991 Intermodal Surface Transportation Efficiency Act, (ISTEA) Section 1006. ISTEA required the redefinition of the National Highway System (NHS) that is included in the total Federal-Aid Highway (FAH) program. The three classifications are: (1) National Highway System, (2) Other Federal-Aid Highway, and (3) Non-Federal-Aid. The National Crossing Inventory File uses this classification, but subdivides the National Highway System into "Interstate National Highway System" and "Other NHS."

The Highway System Codes are listed in the following table.

Table: Highway System Codes

I water I light way a journ cours					
Code	Definition	Included			
1	Interstate National Highway System	Interstate, rural, and urban			
2	Other National Highway System	Other urban and rural principal arterial, Non Interstate			
3	Other Federal-Aid Highway, Not National Highway System	Rural major collector and higher category, or urban collector and higher category, not part of NHS			
8	Non Federal Aid	Local rural roads, rural minor collectors, and local urban city streets or any other non-Federal-Aid roadway			

NOTE: According to FHWA system mileage staff, Interstate frontage roads should not be designated as part of the Interstate National Highway System, but as a local street or road.

Part V-Item 2. Is Crossing on State Highway System?

Enter a check in the appropriate box to indicate whether (or not) the crossing is on a State Highway System.

If "Yes" is indicated, be sure that the *Highway Type and Number* are entered in Part I, Item 14.

Part V-Item 3. Functional Classification of Road at Crossing

Functional Classification is the grouping of highways, roads and streets by the character of service they provide and can be applied in planning highway system development. It defines the part that any particular route should play in serving the flow of traffic through a highway network. There are separate classifications for both urban and rural functional systems because they have fundamentally different characteristics. The details and definitions for classifying systems can be found on FHWA's Website at www.fhwa.dot.gov under "Guidelines for Functional Highway Classification System."

Enter the appropriate highway Functional Classification Code that the State has determined in accordance with Federal-Aid Highway Program Definitions. The current Functional Classification Codes are listed in the following table:

Table: Functional Classification Codes

Category	Codes	Functional Classification
Rural	01	Interstate
Rural	02	Other principal arterial
Rural	06	Minor arterial
Rural	07	Major collector
Rural	08	Minor collector
Rural	09	Local
Urban	11	Interstate
Urban	12	Other freeway and expressway
Urban	14	Other principal arterial
Urban	16	Minor arterial
Urban	17	Collector
Urban	19	Local

NOTE: The tens digit must be "0" for Rural Codes and it must be "1" for Urban Codes. This field is also used to identify if a crossing is in a Rural or Urban area.

Part V-Item 4. Posted Highway Speed

Enter the Posted Speed Limit for the highway/roadway at the crossing. Where no speed signage exists, the State's statutory speed limit applies.

Part V-Item 5. [Estimated] Annual Average Daily Traffic (AADT)

Enter the estimated average for the calendar year for the daily highway traffic through the crossing (total both directions) based on available traffic information. A reasonable estimate of the AADT is acceptable if actual traffic counts are not readily available. In "year," enter the year that matches the AADT for the data supplied.

Part V-Item 6. Estimate Percent Trucks

Enter the estimated percentage of trucks in the traffic stream.

Part V-Item 7. Average Number of School Buses Through Crossing per School Day

Enter the average total number of times that a school bus went through a crossing, empty or full, on a normal school day. Back and forth movements count as two passes through the crossing.

APPENDIX A

Code Designations for High-Speed Rail Corridors

Key: Character "#" - Either use for Corridor Section Identifier (numeric 1 - 9), or use "X".

<u>Code</u>	<u>Corridor</u>	Route
PNW#	Pacific Northwest	Vancouver - Seattle - Portland - Eugene
CAV# CAC#	California	San Diego - Los Angeles - Stockton - Sacramento/Bay Area Los Angeles - Bay Area - Sacramento
CMM# CSK# CIC# CKD# CTC# CIL#	Chicago Hub	Chicago - Milwaukee - Minneapolis Chicago - Springfield - St. Louis - Kansas City Chicago - Indianapolis - Cincinnati Chicago - Kalamazoo - Detroit Chicago - Toledo - Cleveland Indiana Extension: Indianapolis - Louisville
CCC#	Ohio 3 C's	Cleveland - Columbus - Cincinnati
KEY#	Keystone	Philadelphia - Harrisburg - Pittsburgh
EMP#	Empire	New York - Albany - Buffalo
NEP# NEM#	Northern New England	Boston - Portland Boston - Montreal
NEC#	Northeast Corridor	Washington - Baltimore - Philadelphia - New York - New Haven - Boston
SER# SES# SEC# SEV# SEG#	Southeast	Washington - Richmond - Raleigh Raleigh - Columbia - Savannah - Jesup - Jacksonville Raleigh - Durham - Greensboro - Charlotte - Greenville - Atlanta - Macon Virginia Extension: Richmond - Hampton Roads Georgia Connection: Macon - Jesup
FLX#	Florida	Miami - Orlando - Tampa
GCA# GCB#	Gulf Coast	Atlanta - Birmingham - Meridian - New Orleans Mobile - Biloxi - New Orleans - Houston
SCA# SCT# SCO#	South Central	Dallas/Ft Worth - Austin - San Antonia Dallas/Ft Worth - Texarkana - Little Rock Dallas/Ft Worth - Oklahoma City - Tulsa

 ${\it Contact FRA if other code designations are needed.}$

APPENDIX B

GATED CROSSING DEFINITIONS FOR NATIONAL CROSSING INVENTORY REPORTING

GATES: Definition: Highway-Rail Intersections with Gates are those that have one or more automatic gate installations depending on the nature and layout of the roadway.

Pedestrian gates are not to be included.

<u>Inventory Reporting</u>: Enter the total number of gate arms in Part III. Item 3.A. Include in the count all gates without distinction as to color or reflectivity. Do not include pedestrian gates.

<u>WDCODE</u>: The computer generated Warning Device Code (WDCODE) for crossings with this characteristic is 8.

TWO QUADRANT GATES:

<u>Definition</u>: Highway-Rail Intersections with **Two (2) Quadrant Gates** are those that have at least two automatic gate installations whereby the gate arms are designed to block the approaching highway traffic from driving around the gate arms without crossing the roadway centerline. They are positioned on the two crossing entrance approach sides of a two lane highway. When there is a four lane or greater divided highway exists, additional Mast Mounted Flashing Light & Gate (FLG) assemblies may be installed in the median island on the approach side of the highway (these are know as Dual Entrance Gates). The medians may be raised or they may be just islands with guardrails.

<u>Inventory Reporting</u>: Enter the total number of gate arms in Part III. Item 3.A. Include in the count all gates without distinction for color or reflectivity. Do not include pedestrian gates.

<u>WDCODE</u>: The computer generated Warning Device Code (WDCODE) for crossings with this characteristic is 8.

THREE OUADRANT GATES:

<u>Definition</u>: Highway-Rail Intersections with **Three (3) Quadrant Gates** are those that have three gate arms that extend individually across both approach lanes and one exit lane of a two directional highway. These gates, due to roadway design, block highway traffic from traversing the crossing when in the down position. One of the roadways intersecting the railroad tracks may utilize a median barrier, traffic channelization, or island preventing highway traffic from crossing into the exit lane of the side that does not have the exit gates, making the crossing fully blocked in a manner that would be equivalent to that of a four quadrant gate designs. (Refer to MUTCD Section 8.D. for appropriate design and operation.)

<u>Inventory Reporting</u>: Enter the total number of gate arms in Part III. Item 3.A. Include in the count all gates without distinction as to color or reflectivity. Do not include pedestrian gates.

Also, Enter a check in the appropriate box in Part III. Item 3.B to indicate that **Three-Quadrant Gates** are present at the crossing. This Item is to be checked <u>only</u> if the entrance and exit lanes are fully blocked when the gates are in the down position in a manner equivalent to that of a traditional four-quadrant gate installation.

<u>WDCODE</u>: The computer generated Warning Device Code (WDCODE) for crossings with this characteristic is 9. For the Accident Prediction Model (PCAPS and WBAPS) calculations, the formula for Gates utilizes WDCODE = 8 and 9.

FOUR QUADRANT GATES:

<u>Definition</u>: Highway-Rail Intersections with **Four (4) Quadrant Gates** are those which have four gate arms that extend individually across the approach and exit lanes of a two directional highway and that totally block highway traffic from traversing the crossing when in the down position. Roadways intersecting the railroad tracks at an angle may utilize median islands between the gates. (Refer to MUTCD Section 8.D. for appropriate design and operation.)

<u>Inventory Reporting</u>: Enter the total number of gate arms in Part III. Item 3.A. Include in the count all gates without distinction as to color or reflectivity. Do not include pedestrian gates.

Also, enter a check in the appropriate box in Part III. Item 3.B to indicate that **Four-Quadrant Gates** are present at the crossing. This Item is to be checked <u>only</u> if the traditional four-quadrant gate installation is present, consisting of four gates, blocking both the entrance and exit lanes when in the down position.

<u>WDCODE</u>: The computer generated Warning Device Code (WDCODE) for crossings with this characteristic is 9. For the Accident Prediction Model (PCAPS and WBAPS) calculations, the formula for Gates utilizes WDCODE = 8 and 9.

FULL BARRIER GATES:

<u>Definition</u>: Highway-Rail Intersections with **Full Barrier Gates** are those that have at least one gate arm or other barrier arm mechanism that fully extends across the roadway to block all approaching highway traffic from traversing the crossing and normally only block the on-coming traffic. Such systems would be used on one-way streets or divided roadways.

<u>Inventory Reporting</u>: Enter the total number of gate arms in Part III. Item 3.A. Include in the count all gates without distinction as to color or reflectivity. Do not include pedestrian gates.

Also, Enter a check in the appropriate box in Part III. Item 3.B to indicate that **Full Barrier Gates** are present at the crossing. This Item is to be checked only if the roadway traffic is fully blocked when the mechanisms are in the down position.

<u>WDCODE</u>: The computer generated Warning Device Code (WDCODE) for crossings with this characteristic is 9. For the Accident Prediction Model (PCAPS and WBAPS) calculations, the formula for Gates utilizes WDCODE = 8 and 9.

MEDIANS WITH GATES (Dual Entrance Gates):

<u>Definition</u>: Highway-Rail Intersections with **Medians With Gates**, or Mast Mounted Dual Entrance Gates, are those that have gate arms that fully extend across the roadway to block all approaching highway traffic from traversing the crossing. The gate assembly is installed on the highway shoulder side and in the median of the approach lanes. Such systems are often used on multi-lane divided highways with raised medians. Normally, these systems are considered to be equivalent to Two-Quadrant Gate systems, even though there may be four gate arms.

For **Medians With Gates** to qualify for <u>full blockage</u> of the roadway, the medians must extend a minimum of 100 feet and be of a design that is high enough (at least 8 inches) to prevent highway traffic from crossing into the opposite traffic lane.

<u>Inventory Reporting</u>: Enter the total number of gate arms in Part III. Item 3.A. Include in the count all gates without distinction as to color or reflectivity. Do not include pedestrian gates.

Also, enter a check in the appropriate box in Part III. Item 3.B to indicate that **Medians With Gates** are present at the crossing. This Item is to be checked only if the approaching highway traffic is fully blocked in accordance with the described design when the gates are in the down position and where the medians are considered un-mountable and extend at least the minimum length.

<u>WDCODE</u>: The computer generated Warning Device Code (WDCODE) for crossings with this characteristic is 9. For the Accident Prediction Model (PCAPS and WBAPS) calculations, the formula for Gates utilizes WDCODE = 8 and 9.

III. UPDATING RESPONSIBILITY

The following Table identifies the designated agency (State or Railroad) that is responsible for updating specific data element fields in the National Crossing Inventory File. An "X" in the respective column for State or Railroad indicates which agency is normally responsible for providing the updated information. However, in some cases, both the State and Railroad can supply the other agency's information. A blank does not necessarily preclude an agency from providing the information if it is correctly known and explained and documented when transmitting the data.

A checkmark $(\sqrt{})$ in the "Required" column indicates that this information is important and is a required data field for the National Inventory. If data is not submitted for a "Required" data item, the record may be held in suspense until the data is provided.

UPDATING RESPONSIBILITY						
	Agency Normally Responsible for Updating Crossing Inventory Data Elements, and Required Data Fields					
Item No.	Element Name	State	Railroad	Required		
M	UST PROVIDE THE FOLLO	WING DAT	A FOR ALL CR	OSSINGS		
A.	Initiating Agency	Х	Х	$\sqrt{}$		
B.	Crossing Number		X	$\sqrt{}$		
C.	Reason for Update	X	X	$\sqrt{}$		
D.	Effective Date	X	X	$\sqrt{}$		
	Part I: Location and Classification Information					
I-1.	Railroad Operating Company		Х	$\sqrt{}$		
I-2.	State	X		$\sqrt{}$		
I-3.	County	X		$\sqrt{}$		
I-4.	Railroad Division or Region		X			
I-5.	Railroad Subdivision or District		X			
I-6.	Branch or Line Name		X			
I-7.	Railroad Milepost		X	$\sqrt{}$		
I-8.	Railroad I.D. Number		Х			
I-9.	Nearest RR Timetable Station		X			
I-10.	Parent RR		Х			
I-11.	Crossing Owner	_	Х			

UPDATING RESPONSIBILITY

Agency Normally Responsible for Updating Crossing Inventory Data Elements, and Required Data Fields

Item No.	Element Name	State	Railroad	Required
I-12.	City (In or Near)	Х		√
I-13.	Street or Road Name	X		√
I-14.	Highway Type & Number	X		
I-15.	ENS Sign Installed (1-800)	X (for <u>Public</u> Crossings)	X (for <u>Private</u> Crossings)	
I-16.	Quiet Zone (if one exists)	NA	NA	FRA will populate
I-17.	Crossing Type		X	√
I-18.	Crossing Position		Х	$\sqrt{}$
I-19.	Type of Passenger Service		X	$\sqrt{}$
I-20.	Average Passenger Train Count Per Day		X	$\sqrt{}$
I-21.	HSR Corridor ID (High Speed Rail Corridor)	X		FRA will provide Code
I-22.	County Map Reference Number	X		
I-23.	Latitude (Degrees, Decimal Degrees)	X (for <u>Public</u> Crossings)	X (for <u>Private</u> Crossings)	$\sqrt{}$
I-24.	Longitude (Degrees, Decimal Degrees)	X (for <u>Public</u> Crossings)	X (for <u>Private</u> Crossings)	√
I-25.	Lat/Long Source (Actual or Estimated)	X (for Public Crossings)	X (for Private Crossings)	√
I-26.	Is there an Adjacent Crossing with a Separate Number?	X		
I-27.	PRIVATE CROSSING INFORM	MATION		
I-27.A.	Category		Х	$\sqrt{}$
I-27.B.	Public Access		X	$\sqrt{}$
I-27.C.	Signs/Signals		X	$\sqrt{}$
I-28.AD.	Railroad Use		Х	
I-29.AD.	State Use	X		
I-30.	Narrative	Х	Х	
I-31.	Emergency Contact (Telephone No.)		Х	$\sqrt{}$

	UPDATING RESPONSIBILITY						
Agency Normally Responsible for Updating Crossing Inventory Data Elements, and Required Data Fields							
Item No.	. Element Name State Railroad Requ						
I-32.	Railroad Contact (Telephone No.)		Х	V			
I-33.	State Contact (Telephone No.)	Х		√			
MUST PI	ROVIDE PARTS II-V FOR P	UBLIC VEHI	CLE AT-GRA	ADE CROSSINGS			
	Part II: Ra	ilroad Informa	ıtion				
II-1.	Typical No. of Daily Train Mover	nents					
II-1.A.	Total Trains		X	$\sqrt{}$			
II-1.B.	Total Switching Trains		X	$\sqrt{}$			
II-1.C.	Total Daylight Thru Trains (6 AM to 6 PM)		X	√			
II.1.D.	Check if Less Than One Movement Per Day		X	√			
II-2.	Speed of Train at Crossing						
II-2.A.	Maximum Time Table Speed		X	$\sqrt{}$			
II.2.B.	Typical Speed Range Over Crossing		Х	√			
II-3.	Type and Number Tracks		X	$\sqrt{}$			
II-4.	Does Another RR Operate a Separate Track at Crossing?		X	√			
II-5.	Does Another RR Operate Over Your Track at Crossing?		X	V			
Part III: Traffic Control Device Information							
III-1.	No Signs or Signals	X		√			
III-2.	III-2. Type of Warning Devices at Crossing - Passive Signs						
III-2.A.	Crossbucks	X		$\sqrt{}$			
III-2.B.	Highway Stop Signs (R1-1)	X		√			
III-2.C.	RR Advance Warning Signs (W10-1)	X					

III-9.-12.

Reserved for Future Use

UPDATING RESPONSIBILITY Agency Normally Responsible for Updating Crossing Inventory Data Elements, and Required Data Fields Item No. **Element Name** Railroad Required State III-2.D. Hump Crossing Sign (W10-5) Х J III-2.E. Pavement Markings Х III-2.F. Other Signs Х III-3. Type of Warning Device at Crossing - Train Activated Devices III-3.A Х Х III-3.B. Four-quadrant (or full barrier) Gates √ III-3.C. Cantilevered (or Bridged) Х Flashing Lights √ III-3.D. Mast Mounted Flashing Lights Х III-3.E. Number of Flashing Light Pairs Х III-3.F. Х Other Flashing Lights III-3.G. Highway Traffic Signals Х V III-3.H. Wigwags Х III-3.J. Bells Х V III-3.K. Other Train Activated Х Warning Devices Specify Special Warning Device NOT Train Activated III-4. Х √ Channelization Devices With III-5. Х Gates III-6. Train Detection Х Signaling for Train Operation: Is Track Equipped with Train Signals? V III-7. Х Traffic Light Interconnection/Preemption √ III-8. Х

UPDATING RESPONSIBILITY

Agency Normally Responsible for Updating Crossing Inventory Data Elements, and Required Data Fields

Item No.	Element Name	State	Railroad	Required	
Part IV: Physical Characteristics					
IV-1.	Type of Development	X		$\sqrt{}$	
IV-2.	Smallest Crossing Angle	Χ		√	
IV-3.	Number of Traffic Lanes Crossing Railroad	X		$\sqrt{}$	
IV-4.	Are Truck Pullout Lanes Present?	Х		√	
IV-5.	Is Highway Paved?	Х		$\sqrt{}$	
IV-6.	Crossing Surface (on main line)	Х		√	
IV-7.	Does Track Run Down a Street?	Х		√	
IV-8.	Nearby Intersecting Highway?	Х		$\sqrt{}$	
IV.8.	Is it Signalized?	Х		√	
IV-9.	Is Crossing Illuminated?	X			
IV-10.	Is Commercial Power Available?	Х			
IV-11.	Space Reserved for Future Use				
	Part V: High	way Inform	nation		
V-1.	Highway System	X		$\sqrt{}$	
V-2.	Is Crossing on State Highway System?	X		√	
V-3.	Functional Classification of Road at Crossing	X		√	
V-4.	Posted Highway Speed	X		$\sqrt{}$	
V-5.	Annual Average Daily Traffic (AADT)	X		$\sqrt{}$	
V-6.	Estimated Percent Trucks	X		$\sqrt{}$	
V-7.	Average Number of School Buses Over Crossing per School Day	X		√	

IV. POLICY AND PROCEDURES FOR SUBMITTING UPDATES

The following policy and procedures shall apply for data submitted to update the National Crossing Inventory File. When submitting updates, the submitting Railroads and States (both referred to as Agencies herein) need to include a transmittal letter explaining the information being provided and the action to be taken. This "letter" may be hardcopy or an electronic email which includes the submitter's name and contact information, with a copy to any other agencies whose data is affected providing complete notification to all involved parties. Good communication is the key to successful updating.

Many discrepancies in the Inventory are due to one Agency updating fields and not sharing the information with the other affected Agencies. Additionally, FRA receives updates from numerous States and Railroads in many different forms and formats. Quite often, these submittals contain errors or include questionable data or processing techniques. FRA needs to be able to contact the person submitting the data and to understand exactly what information is being submitted for proper processing.

Requirement: All crossings in the United States, public, private and pedestrian, both at-grade and grade separated (underpasses and overpasses) shall have a DOT Crossing Inventory Number assigned. The only exception is for a crossing that is to serve temporary construction activities and will not be in place for longer than six months. For Crossing Inventory purposes, an at-grade signalized crossing will include only those tracks that lie between the same pair of warning devices.

The responsibility for numbering the crossing and for filing the initial inventory report is that of the "Operating Railroad," meaning the railroad that actually operates over the crossing. This is also the case for crossings that are on private property such as in a plant area owned by a private corporation or in the rail yard of the Operating Railroad. If multiple railroads operate over the crossing, then the responsibility falls to the operating railroad who owns and/or maintains the trackage.

1. For a new crossing, the Railroad normally has the responsibility for initiating the process, obtaining a valid crossing inventory number, completing a hard copy of the Inventory Form (or an electronic file) for the new crossing data, and submitting it to FRA for processing. For a public at-grade crossing, the completed Form (or electronic file) is normally submitted by the Railroad to the State for completion of Part V, "Highway Information." The State is then responsible for forwarding the completed Form (or electronic file) to the FRA and for sending a copy back to the Railroad.

The State may assume this responsibility for Railroads that convey their permission to do so or for Railroads that do not have sufficient resources (such as small shortline, museum and tourist railroads) or those that do not respond in a timely manner.

For a new crossing, all required fields must have data provided. The processing software, by design, will not permit just partial data for a new crossing to be input into the File.

<u>Discussion:</u> It is suggested, for expediency and efficiency, that the Railroad obtain the highway information for a public crossing from the State for inclusion on the Form. This provides the railroad control over the submittal process and assures that the information is forwarded to FRA and is not waiting for the State to complete their part. The transmittal letter should show that the State is being provided a copy, which will be considered confirmation by the State that the data is correct, or the State can provide the correct information.

In situations where a railroad fails to respond in a timely manner by assigning a crossing inventory number to a new or un-numbered crossing, or in the case of smaller railroads that don't have the knowledge or resources to respond promptly, the State may proceed by assigning a crossing inventory number.

2. In general, for existing crossings where updates are submitted electronically in mass or individually on hardcopy, only those data fields for which the initiating Agency has responsibility will be processed. Only one agency, State or Railroad, has responsibility for a specific data field. These responsibilities are defined in the attached "Updating Responsibility" Table.

<u>Discussion:</u> In general, when providing electronic updates, the Railroad will only update the railroad-responsible data fields and the State will only update the state-responsible data fields. Further, the submitting agency should only submit the data for processing for which it is responsible. Exceptions to this policy are explained for situations when one agency is not prevented from updating the other agency's data fields

3. States may determine that they will maintain and control the complete Inventory File for all crossings in their State, whereupon, they will submit all updates for both the State and Railroads to the FRA.

<u>Discussion:</u> In such cases, the State takes full responsibility for submitting all data fields for both the Railroads and the State. The State must notify the FRA and railroads that they intend to implement this policy and guarantee that the State will submit updates at least every three months to the FRA. Railroads, operating within these States, should then send their updates only to the State and not to the FRA. If the State fails to provide such updates within a six month period, they may lose this special status and FRA may return to accepting updated data from the Railroad. The FRA will maintain a record of the States with this status and will not process data received from the Railroad for these States.

4. For States (or Railroads) that have performed an on-site inventory, the data for all re-inventoried fields may be submitted for updating which may include both State and Railroad data fields.

<u>Discussion:</u> If an on-site inventory is performed, all the data obtained from the onsite inventory will be accepted for updating. The transmittal letter must explain that an on-site inventory has occurred, and a copy of the letter and data must be provided to all entities for which data is being updated. Any updates obtained during an onsite inventory, that are updates to fields which are not the submitting agency's responsibility, must be submitted separately from any other submitted data.

5. When a Railroad upgrades a warning device or crossing surface (usually as part of, but not solely, a Section 130 project), it is the responsibility of the Railroad to notify the State and FRA of the upgrade or change in the warning device and/or surface.

<u>Discussion:</u> In such situations, the Railroad usually will notify the State that the project work is complete and ready for inspection. Such letters need to have a copy of the Inventory Form (which can be obtained from FRA's Website) attached with the changes indicated and circled. Copies of this letter should be sent to the FRA and to the State Inventory Contact. This will usually apply to a single crossing or small group of crossings and be performed by hardcopy. Electronically submitted letters (e.g., pdf files) are acceptable. States are encouraged to include this requirement in contracts with the Railroads. Railroads that regularly submit updates electronically may use this method for providing updated information. However, the transmittal letter will need to state that such updates are being submitted.

6. It is the responsibility of the Railroad to submit a change in the "Operating Railroad" when a segment or entire railroad transfers ownership. This responsibility usually falls to the current Railroad that is transferring ownership to the new Railroad. However, it is also the responsibility of the new Operating Railroad to ensure that all of their crossings are updated to show the new change in ownership.

States may perform such a change when conditions exist where the previous railroad is no longer in existence or where the Railroad has not performed its responsibility to submit charges within a reasonable amount of time. In such cases, the new "Operating Railroad" must be notified of the changes.

<u>Discussion:</u> FRA may request the submitting agency to confirm that the information is correct and that the change is to be performed. Copies of the transmittal letter explaining the update shall be provided to all affected parties that are still in existence. If the submitting agency is the State, then the updates to the Operating Railroad field must be sent in a separate file.

7. States and/or Railroads may be requested to confirm that the submitting agency is providing the correct information (change in data) when the current FRA Inventory File differs from the updated submission for certain data fields, such as "Reason (open or closed)," "Type/Position (private or public)," "Operating Railroad" and "State (location)."

<u>Discussion:</u> There is often a conflict in the National File with these fields when updates are submitted. When such conflicts exist, FRA may request the submitting agency to confirm that the updated information is correct. This confirmation can be provided by submitting a simple letter (or email) directing the FRA (or its Contractor) to effect the changes and that the data is correct. The submitting agency is taking responsibility for the accuracy of the information provided. For such cases, the

submitting agency should check with the opposing agency to confirm and resolve any conflicts before directing FRA to make the change.

Crossing Type (public or private) is usually obvious. However, in certain situations where it is not clear, resolution of the conflict will require discussions and agreement by both the Railroad and the State. Since determination of this status has a great effect on the Railroad, it is the Railroad's responsibility to submit the updates for this data field. The State needs to implement procedures to determine and designate which crossings are public in their State and so notify the affected Railroad.

8. When a crossing is being changed from Private to Public, data for all required data fields must be provided by the submitting agency.

<u>Discussion:</u> The data processing software, by design, will not accept a "new" or "change to" a Public crossing unless all information for all required data fields is provided. Legal implications of changing Crossing Type (private to public or vice versa) may deserve using hardcopy, or an electronic version thereof, so that a paper trail exists and complete notification of all involved parties is documented.

9. If there are no changes to a crossing record and all data is to remain the same, the submitting agency may indicate that the current data is correct and current by changing only the "Effective Date" to January 1st of the current year. This procedure should not be used more than once every three years.

<u>Discussion:</u> The Inventory Program requires that updates be provided to the National File when changes occur which are different from the current record in the File. Thus, if no changes occur, no updates are required. However, for some crossings, there may never be any changes and the records will retain a very old effective date which will make it look like the data in the File is outdated, when in fact it is not. In such cases, when the submitting agency verifies that the current data is correct by an on-site inventory or another method, a more this procedure can be used to verify that the current data is correct and provide a more current "Effective Date," can be provided indicating that the File is current and not outdated.

10. In some circumstances, a State (or Railroad) may request or allow the other agency to provide updates on its behalf. This will usually happen when a State is providing updated information on behalf of a small shortline railroad. In such cases, updated data will be accepted for both agencies upon confirmation with the non-submitting agency. This confirmation can be provided by the update transmittal letter to FRA, or by letters of instruction or notification to and/or between the Railroad and State agencies.

<u>Discussion:</u> States that may not have the resources to frequently update the File, may agree to allow the Railroad to provide updates for state-responsible fields, such as warning devices and physical characteristics. Likewise, a Railroad may request or allow a State to make changes or corrections on its behalf because it does not have the resources at the moment to effect the changes. Also, in some cases it may be more efficient and easier for the State to submit updates for a crossing (or a new

crossing) on behalf of a shortline railroad, or other owner, which does not have the resources or may lack the knowledge to effect such updates. When these situations occur, FRA will process the data provided assurances are received that it is acceptable to the other agency and that the other agency has been notified of the changes being made. This process can be accomplished by including this information in the transmittal letter with a copy to all affected parties. Such data must be provided to FRA separate from other updates.

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APPENDIX I RAILROAD BILLING PROCESS FINANCE TRANSFORMATION PROJECT

This appendix contains the following items:

- 1. New Mailing Addresses for Invoice Submissions
- 2. Matrix Location Codes
- 3. P.O. and Non-P.O. Based Invoices Flow Charts
- 4. Pennsylvania Electronic Payment Program (PEPP) Enrollment Form



Date: February 23, 2009

Subject: New Mailing Addresses for Invoice Submission

To Whom It May Concern:

In February 2008, the Commonwealth of Pennsylvania began a project known as the Finance Transformation Project. A primary project goal is to improve invoice processing by the Commonwealth. As an organization working with the Department of Transportation, it is important that you are aware of the project and its impact on you as it relates to invoice submission.

Starting on May 1, 2009, the Pennsylvania Department of Transportation has the following new mailing addresses for invoices not associated with a purchase order. The invoice type will determine the appropriate mailing address to use. The new mailing address should also include a **location code**. The attached matrix crosswalks a location code to an organization within the Department of Transportation.

If you are submitting an invoice **not related** to a utility or grant, send the invoice to:

Pennsylvania Department of Transportation, NAME of ORGANIZATION

LOCATION CODE

PO Box 69181

Harrisburg, PA 17106

If you are submitting an invoice related to a **utility defined as**, Electric, Natural Gas, Propane, Phone (cellular/land line), Water, Sewer, Garbage, Cable, Radio, Steam, and Recycling, send the invoice to:

Pennsylvania Department of Transportation, NAME of ORGANIZATION

LOCATION CODE

PO Box 69182

Harrisburg, PA 17106

However, if you received a Purchase Order for one of these services, send the invoice to the location listed on the Purchase Order.

If you are submitting an invoice related to a **grant**, send the invoice to:

Pennsylvania Department of Transportation, NAME of ORGANIZATION

LOCATION CODE

PO Box 69183

Harrisburg, PA 17106

Mandatory Action Required

The following information <u>must be included</u> on your invoices. Starting on May 1, 2009, failure to include these elements will result in the return of the invoice and a request for a new invoice.

NOTE: These mandatory requirements do not change standard information you currently provide.

Mandatory Elements Preferred placement is top third of invoice	Preferred Elements These elements will assist in prompt processing your invoice, but are not required for payment	
 Location Code Invoice Date Invoice Number Gross/Total Amount 	 Supplier or Grantee Name Supplier or Grantee Remit To Address Information Supplier or Grantee Fax Number Email Address of Supplier or Grantee Contact Person Description of Invoiced Item(s) 	

Other Important Information

- Exceptions to the new invoice mailing addresses exist for invoices associated with right of way claims. If your invoices are issued as part of this activity, please continue to use your current submission process, unless otherwise notified.
- **Electronically submitted invoices** remain unaffected, please continue to use your current submission process, unless otherwise notified.
- If sending a credit memo, please reference the original Invoice Number, Amount and note "Credit Memo" on the document. Also, given that all invoices will be subject to scanning, we request highly legible invoices, as adherence to this request will speed processing time.

Should you have any questions about the information contained in this letter, please visit the *Frequently Asked Questions (FAQs)* section on our website (www.financetransformation.state.pa.us) or email us at PENNDOTVendorRelations@state.pa.us. We thank you in advance for your immediate attention to this request and look forward to better serving you in the future.

Attachments:

Matrix - Location Codes



Matrix – Location Codes

Name of Organization	Location Code
District 1-0 Office	78DIST01
Crawford County	78CRAWFORD
Erie County	78ERIE
Forest County	78FOREST
Mercer County	78MERCER
Venango County	78VENANGO
Warren County	78WARREN
District 2-0 Office	78DIST02
Cameron County Repair Facility	78CMRNRPFC
Centre County	78CENTRE
Clearfield County	78CLEARFLD
Clinton County	78CLINTON
Cameron County	78CAMERON
McKean County	78MCKEAN
Potter County	78POTTER
Mifflin County	78MIFFLIN
Elk County	78ELK
Juniata County	78JUNIATA
District 3-0 Office	78DIST03
Columbia County	78COLUMBIA
Lycoming County	78LYCOMING
Montour County	78MONTOUR
Northumberland County	78NRTHUMBR
Snyder County	78SNYDER
Sullivan County	78SULLIVAN
Tioga County	78TIOGA
Union County	78UNION
Bradford County	78BRADFORD
District 4-0 Office	78DIST04
Lackawanna County	78LACKWNNA
Luzerne County	78LUZERNE
Pike County	78PIKE
Susquehanna County	78SUSQHNNA
Wayne County	78WAYNE
Wyoming County	78WYOMING
District 5-0 Office	78DIST05
Berks County	78BERKS
Carbon County	78CARBON
Lehigh County	78LEHIGH

Monroe County	78MONROE
Northampton County	78NRTHHMPN
Schuylkill County	78SCHLKILL
District 6-0 Office	78DIST06
Bucks County	78BUCKS
Chester County	78CHESTER
Delaware County	78DELAWARE
Montgomery County	78MONTGMRY
Philadelphia County	78PHILA
District 8-0 Office	78DIST08
Adams County	78ADAMS
Cumberland County	78CUMBRLND
Franklin County	78FRANKLIN
York County	78YORK
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P.O. Based Invoices Agency Vendor sends an Department of Comptroller's Office Treasury receives invoice to the post audits and approves Revenue scans invoice approval and office box into SAP invoice in SAP sends payment to the Vendor SAP Invoice Vendor has provided goods and services to Treasury Vendor the Agency Invoice with problems Invoice with problems sent sent to Quality Control If problems to Exceptions Processing (Comptroller's Office) resolved, (Comptroller's Office) or QC Line Item Reconciler invoice sent (Agency) back to DOR If problems not resolved, invoice sent back to the Vendor Non-P.O. Based Invoices Agency reviews Vendor sends an invoice Department of Comptroller's Office Agency Treasury receives with location code to **5** audits and approves and approves Revenue scans invoice approval and the post office box into SAP invoice in SAP invoice in SAP 234789-00 sends payment to the Vendor SAP Vendor has n provided goods and services to Treasury Vendor the Agency Invoice with Invoice with Invoice with problems problems problems sent to sent to Quality Control If problems returned to Exceptions (Comptroller's Office) resolved, the Vendor **Processing** invoice sent (Comptroller's back to DOR... Office) to return to the Agency for

...or Invoice returned to

the Vendor

correction or return to the Vendor

Commonwealth of Pennsylvania Pennsylvania Electronic Payment Program (PEPP) Enrollment Form

Only the Owner of the Bank Account or an Authorized Company Official may request payments via ACH.

ACTION REQUESTED:	(check one)	☐ NEW	☐ CHANGE	☐ STOP
Recipient Information	(Please PRI	NT or TYPE In	<u>formation)</u>	
<u>Federal Taxpayer</u> <u>Identification Number</u>				
SAP Vendor Number				
Name:				
If receiving payments from PA	Dept of Transpo	ortation, identify	type of payments to be d	leposited:
Street Address:				
Or PO Box:				
				Zip Code:
Financial Institution Info	rmation			
Account Type: (check on	e)	CHECKING	SAVINGS	
Bank Routing Number (9-d	igit number): _			
Bank Account Number:				
Bank Name:				
Bank Street Address:				
Or PO Box:				
City:	S	State:	_ Zip Code:	Phone #
Please inform your financia	l institution tha	t you will be ha	ving ACH transaction	s posted to the above account.
	ntral Vendor Ma	anagement Uni		Commonwealth of PA, Bureau of 717-214-0140) if you change
Contact:			Phone No.:	
Signature of Account H	older or Autho	orized Official	& Title	Date

GLOSSARY

Active Warning Devices. Traffic control devices which give positive notice to highway users of the approach or presence of a train at a highway-railroad crossing. Active devices include automatically operated flashing railroad warning signals, automatic gates, bells, and other similar devices activated by a train passing over a detection circuit or, in some instances, by manually operated switches to activate warning devices.

Authorization. Official approval given to the Railroad, utility, or other party to proceed with a specific operation/phase of work (i.e., preliminary engineering, right-of-way, etc.). The date of authorization establishes the date of eligibility for the reimbursement with Federal funds for costs incurred on that phase of work. The FHWA authorization of the D-4232 must precede commencement of that specific phase of work.

Betterment Project. The Betterments are minor projects that enhance the functional quality of an existing roadway by upgrading its pavement and shoulders, guide rail, drainage, signing, line striping and signalization. These projects typically address problems a step beyond the scope of routine maintenance. The purpose of a typical Betterment is to improve an existing roadway's safety and operations by restoring and upgrading its existing features.

Carrier. Any railroad, railway company, or corporation other than a street railway, subject to PUC jurisdiction, which operates a railroad in the Commonwealth.

Central Office Grade Crossing Unit (COGCU). Provides quality assurance, guidance, and training to the Districts in coordinating and supervising all highway-railroad crossing activities; a unit within the Bureau of Project Delivery, Design Services Division, Right-of-Way and Utilities Section, located in the Commonwealth Keystone Building in Harrisburg.

Circuit Plans. Plans detailing the electrical circuitry for active highway-railroad crossing warning devices.

Class of Track. Track is classified by the Federal Railroad Administration according to the following operating speed limits:

Class of Two sla	Max. Allowable Operating Speed (mph)		
Class of Track	Freight Trains	Passenger Trains	
Excepted Track	10	N/A	
1	10	25	
2	25	40	
3	40	60	
4	60	80	
5	80	90	
6	(a)	110	
7	(a)	125	
8	(a)	160	
9	(a)	200	

(a) Freight may be transported at passenger train speeds if the following conditions are met: The vehicles utilized to carry such freight are of equal dynamic performance and have been qualified in accordance with 49CFR213.345 and 49CFR 213.329.

Class I Railroad. Railroads with average annual operating revenues of \$250 million or more; in Pennsylvania, these include Norfolk Southern, CSX and Canadian National.

Class II Railroad. Railroads with average annual operating revenues between \$20 million and \$250 million.

Class III Railroad. Railroads with average annual operating revenues less than \$20 million.

Code of Federal Regulations, Title 23, Part 646. The current Federal highway regulations that address reimbursement of railroads, as well as railroad-highway projects, hereinafter referred to in this manual as 23 CFR.

Commonwealth Project. Construction, reconstruction, rehabilitation, replacement, and/or removal of a bridge or crossing on a highway, initiated by the Commonwealth for the benefit of the Commonwealth.

Consultant. An engineer or engineering firm hired by PennDOT to design highway-bridge projects. Also, an engineer or engineering firm hired by a railroad or utility to design facility relocations and supervise the construction work involved.

Cooperation Agreement. A master agreement between PennDOT and a railroad that outlines the general terms of each party's responsibilities for future projects. Cooperation Agreements benefit both parties by establishing project development procedures <u>before</u> specific project initiation, and eliminating much of the time consuming administrative coordination that can otherwise slow individual project development.

Crossbucks. White, reflectorized X-shaped signs with "RAILROAD CROSSING" in black lettering, located alongside the roadway at railroad tracks. Crossbucks should be viewed as a yield sign. The Manual on Uniform Traffic Control Devices (MUTCD) specifies that as a minimum, one crossbuck sign shall be used on each roadway approach to every at-grade crossing, along or in combination with other traffic control devices. See the MUTCD Part 8, Section 8B.03 for more information.

Exempt. A crossing where certain vehicles, as defined in 75 Pa. C.S. § 3342 (b) are not required to stop (exempt from requirement to stop). Exempt status is determined by the PUC 75 Pa. C.S. § 3342 (c) 5 (see excerpt below).

- (b) Vehicles subject to stopping requirements.--This section shall apply to the following vehicles:
 - 1. Any vehicle designated by the department in accordance with the provisions of subsection (d).
 - 2. A school bus, whether or not carrying passengers.
 - 3. Every truck and tractor combination which carries gasoline, diesel fuel, fuel oil, explosives or radioactive materials.
 - (c) Exceptions.--This section does not apply at any of the following:
 - 1. Any railroad grade crossing at which traffic is controlled by a police officer or flagman.
 - 2. Any railroad grade crossing at which traffic is regulated by a functioning highway trafficcontrol signal transmitting a green indication for the direction of travel of the vehicle.
 - 3. Any railroad grade crossing at which an official traffic-control device gives notice that the stopping requirement imposed by this section does not apply.
 - 4. Any abandoned railroad grade crossing which is marked by the former rail operator with a sign prescribed by the department indicating that the rail line is abandoned.
 - 5. An industrial or spur line railroad grade crossing marked with a sign reading "exempt." Such a sign shall be erected only by or with the consent of the Pennsylvania Public Utility Commission.

Federal Aid Projects. A Federal Aid Project is a project on which some or all phases of work, such as: Design Engineering, Right of Way Acquisition, Utility Relocations or Construction, is programmed with the Federal Highway Administration for authorization to proceed with the work and obtain reimbursement to PennDOT with Federal Funds.

Federal Highway Administration (FHWA). Agency of the U.S. Department of Transportation with authority over Federal Aid Highways.

Federal Railroad Administration (FRA). The entity within the U.S. Department of Transportation which monitors the safe operation of railroads. It develops and enforces railroad safety regulations, investigates accidents, manages railroad safety and highway-railroad at-grade crossing safety programs.

Final Billing. The detailed summary of the actual costs and all supplemental sheets necessary to verify and document amounts expended by the Railroad.

Hearing. A formal proceeding attended by all parties of record and conducted by the PUC to determine the responsibilities for the various phases of work, such as design, construction and maintenance, and the allocation of costs associated with highway-railroad crossing improvements.

High-Type Crossing Surface. A concrete panel, full-depth concrete, or virgin rubber surface.

Highway-Railroad Crossing Warning Systems. Traffic control devices placed on or adjacent to a highway at, or in advance of, an at-grade crossing, including pavement markings and circuitry.

Highway-Railroad Grade Crossing. The general area where the right-of-way of a highway crosses that of a railroad, either at-grade, or grade separated (i.e. bridge).

Highway-Railroad Grade Crossing Advance Warning Sign (W10 Series). A round yellow sign with the legend "R X R". It is located alongside the highway in advance of the crossing and is designed to notify a motorist of a highway-railroad crossing ahead. For more information, see <u>Manual on Uniform Traffic Control</u> Devices, (MUTCD) Part 8, Section 8B.06.

Highway-Railroad Safety Program. Referred to by PennDOT as the Section 130 Safety Program.

Overhead Bridge. A structure carrying a highway over railroad facilities.

Overhead Clearance. The vertical distance from the top of the highest rail to the lowest portion of the structure or obstruction above. Refer to PennDOT Publication 15 (DM-4, volume 1, Pat B, section 2). Also see 52 Pa. Code Chapter 33.

Party of Record. Parties interested or affected by the proceeding before the PUC, such as the State, County, Local Governments, Railroads, and Utilities.

Passive Warning Devices. Non-electric traffic control devices, including signs, markings and other devices located at or in advance of a highway-railroad, at-grade crossing to indicate its presence. The purpose is to alert highway users to prepare for and take appropriate action. Passive warning devices include, but are not limited to:

- crossbucks
- signing
- pavement markings

Pavement Markings. Markings in advance of the highway-railroad at-grade crossing usually with the legend R x R set into the surface of or applied or attached to the pavement for the purpose of advising, warning, or guiding traffic.

Private Grade Crossing. An at-grade crossing where the road is privately owned and is intended for use by the owner or by the owner's licensees and invitees. It is not intended for public use and is not maintained by a

public highway authority. The private road owner usually has a railroad permit to have a highway-railroad, atgrade crossing.

Project Costs. The total cost of the railroad project and/or Commonwealth project, including the cost of preliminary and final engineering, construction, construction engineering, acquisition of necessary rights-of-way, protective personnel, and the costs of adjustment and/or relocation of non-carrier utilities.

Public Grade Crossing. Where the highway approaches to a highway-railroad, at-grade crossing are under the jurisdiction of and maintained by a public authority. For the purpose of this manual the affected highway is either under the jurisdiction of PennDOT, or a local government agency.

Rail Crossing Project Index. An analytical tool developed by PennDOT to compare prospective grade-crossings improvement projects. The Rail Index (short title) is based on data from twelve major evaluation items, including traffic volumes (highway and railroad), accident history, and adequacy of existing crossing protection devices. The Rail Index is not intended to be the only evaluation tool to be used for project selection.

Railroad Facility. The railroad right-of-way in a highway or any private railroad right-of-way, and all railroad rail appurtenances in, over, under, and crossing any such highway, where such rail facilities are used or intended for possible future use in the operation of any vehicles operating on steel rails.

Railroad Project. A project initiated by a railroad for the Railroad's benefit.

Regional Railroad. Railroads with average annual operating revenues between \$40 million and \$256.4 million and at least 350 miles of track operated.

Reimbursement Agreement. PennDOT utilizes standard types of reimbursement agreements with the Railroads.

Safety Project. The construction, reconstruction, rehabilitation, upgrade, replacement, and/or removal of a highway, local road, and/or rail facility at an at-grade crossing utilizing Federal, State, and/or other funds under a safety improvement program, including, but not limited to, the Federal Highway-Rail Safety Program.

Safety Project Costs. The total cost of the Grade Crossing project, including the cost of preliminary and final engineering, construction, protective personnel, construction engineering, acquisition of necessary rights-of-way, or the costs of adjustment and/or relocation of non-carrier utilities.

Section 130 Safety Program. This program allocates funds for safety improvements at existing highway-railroad grade crossings. As defined under 23 USC § 130, Section 130 Safety Program funding is available for improvements that include automatic flashing lights and gates. The program also provides incentive payments for at-grade crossing closures. Pennsylvania receives approximately \$7 million per year from the Program. See Chapter 3 for more information about the Section 130 Safety Program.

Short Line Railroad. For PennDOT purposes, any railroad that is not classified as a Class I Railroad, as defined in this appendix.

Situation Plan. A conceptual layout of proposed safety project improvements. Situation plans are prepared using PennDOT's "Guidelines for Design and Installation of Railroad Crossing Surfaces and Automatic Warning Devices" and Manual on Uniform Traffic Control Devices (MUTCD).

Traffic Control Devices. All signs, signals, markings and devices placed on, over, or adjacent to a street or highway, by authority of a public body or official having jurisdiction to regulate, warn or guide traffic. See 67 Pa. Code, Chapter 211 et seq.

Train Accident. Any accident classified under United States Department of Transportation regulations as a train accident.

Underpass Bridge. A structure carrying a railroad over a highway.

Wigwag. The flashing beacons that warn of approaching hazardous conditions such as traffic signals, road conditions, and/or railroad crossing conditions. See Publication 149, *Traffic Signal Design Handbook*, Chapter 1.2; MUTCD – Part 4; and 67 Pa. Code, Chapter 211 (211.1071).

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ACRONYMS AND ABBREVIATIONS

AAR Association of American Railroads

AASHTO American Association of State Highway and Transportation Officials

ACH Automated Clearing House ADT Average Daily Traffic ADTT Average Daily Truck Traffic

AGRMT Agreement

ALJ Administrative Law Judge

AMTRAK National Railroad Passenger Corporation

AREMA American Railway Engineering and Maintenance Association

BOPD Bureau of Project Delivery (Pennsylvania Department of Transportation)

BMS Bridge Management System
CEC Core Equivalent Count
CFR Code of Federal Regulation

CLI Class I Railroad CO Central Office

CONRAIL Consolidated Rail Corporation

DE District Executive

DGCE/A District Grade Crossing Engineer/Administrator

DM Design Manual

DPE District Programming Engineer

DOT United States Department of Transportation

D-4232 Federal Authorization document obligates PennDOT's use of Federal funds

ECMS Engineering and Construction Management System

EDMS Electronic Document Management System

FHWA Federal Highway Administration FRA Federal Railroad Administration

GCEDMS Grade Crossing Electronic Document Management System

GCM Grade Crossing Manual

GCU Grade Crossing Unit, (PennDOT/Bureau of Project Delivery/Design Services

Division/Right-of-Way and Utilities Section)

HSIP Highway Safety Improvement Program

HTS High-Type Surface
IC Independent County
LED Light Emitting Diodes
MGT Million Gross Tons

MMPMSMulti-Modal Project Management SystemMPOMetropolitan Planning OrganizationMPTMaintenance and Protection of TrafficMUTCDManual of Uniform Traffic Control DevicesNCHRPNational Cooperative Highway Research Program

NHPP National Highway Performance Program

NHTSA National Highway Traffic Safety Administration

NRC National Research Council

NTP Notice to Proceed
OCC Office of Chief Counsel
OLS Operation Lifesaver, Inc.

OMB United States Office of Management and Budget PennDOT Pennsylvania Department of Transportation

PM Project Manager

PMC Program Management Committee

Acronyms and Abbreviations

PUC Pennsylvania Public Utility Commission

QA Quality Assurance QC Quality Control

RMS Roadway Management System

ROE Right of Entry ROW Right of Way

RPO Rural Planning Organization

RR Railroad

SAP-7 Internal PennDOT document; establishes SAP number and budget SAP-8 Internal PennDOT document; adjust SAP funds commitment

SL Short Line

SOP Standard Operating Procedure
STP Surface Transportation Program
TAP Transportation Alternatives Program
TIP Transportation Improvement Program
TRB Transportation Research Board

RWUS Right-of-Way and Utilities Section (of the Bureau of Project Delivery)

WBAPS Web Base Accident Prediction System

WD Warning Devices

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