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Strategies to Improve Railroad-DOT Cooperation and Accelerate Project Delivery

A project of SHRP2, Railroad-DOT Mitigation Strategies (R16)

During the research phase of the SHRP2 program, several specific strategies were identified that if used consistently by transportation agencies and railroads would improve coordination and speed project delivery. The following is a summary of these strategies taken from two documents, *Strategies for Improving the Project Agreement Process between Highway Agencies and Railroads*, SHRP2 Report S2-R16-RR-1, The National Academies of Science, 2010; and *Communicating Railroad-DOT Mitigation Strategies*, The National Academies of Science, 2015. Links to these documents with more detailed information can be found at

http://shrp2.transportation.org/Pages/R16_RailroadDOTMitigationStrategies.aspx.

I. Strategies to Improve Coordination

- a. Coordination at the project concept or early planning stages is recommended, particularly for any project that may create horizontal or vertical constraints on the railroad right-of-way or that may be contemplated to interfere even briefly with train operations.
- b. Initial coordination at the 30% plan-development stage may be too late.
- c. Identify the format and sequencing needed for internal reviews by the railroad to reduce the time needed for coordinated, fully considered comments. This review period may extend beyond 60 days unless carefully negotiated and clear processes are in place both within a DOT and a railroad.
- d. Have one DOT and railroad central point of contact, empowered to coordinate highway and railroad project issues. With them, establish ongoing formal communication channels between the highway agency and the railroad.
- e. Schedule regular meetings. Have standing monthly or quarterly meetings—in person or via phone or video to address project schedules with the railroads.
- f. Have formal points of concurrence that includes a formal escalation process to expedite agreement processing and project delivery, agreed-upon regular points of coordination, review, and concurrence between the DOT and the railroad on projects.
- g. Provide dedicated personnel to focus on reviews and agreements.

II. Strategies to Improve the Project Delivery Process

- a. Use standard designs and legal agreements whenever possible.
- b. Have preliminary engineering agreements and initiate formal agreements that allow railroads to be compensated for engineering advice during preliminary development—even if a project is not eventually constructed.

- c. Require early scoping. Require early predesign scoping on project concept between the railroad and the DOT.
- d. Early coordination should establish basic project parameters; railroads should provide comments at the preliminary design stage. In effect, the railroad will explain how its standards differ from AREMA's, but the explanation will come in the form of case-by- case project review comments. For example, overhead bridge structures may need to span beyond an expected two tracks with access roadway and must be identified as early in the process as possible.
- e. If a project is delayed for any reason, basic assumptions should be reviewed after initial coordination to ensure that conditions or railroad activities haven't changed.
- f. Recognize and use the best indemnification scenario possible; options to consider are by transportation agency, by contractor, or by participating in existing railroad insurance pools or programs.
- g. Jointly develop standard plan notes or contract provisions that are minimum standards of performance on the job site to ensure safety and the protection of rail operations.
- h. Schedule regular review meetings in which both sides review successes and issues.
- i. Hire only experienced engineering firms recognized by the railroads for the development of project plans.
- j. Hold preconstruction meetings so that the contractors, highway agencies, utilities, and railroads have common expectations for the construction project.

III. Strategies to Streamline the Process of Reviewing and Signing Agreements

- a. Adopt master agreements in which both parties agree to standard provisions within all projects to streamline the project agreement process. (Provisions of what should be included in master agreements can be found on pages 61-62 in Strategies for Improving the Project Agreement Process between Highway Agencies and Railroads. Examples of master agreements can be found in the SHRP2 R16 Innovation Library.)
- b. Streamline agreement processing of routine projects such as routine maintenance and bridge inspections that are less than \$25,000 or routine maintenance and inspection activities that only require flagging services.
- c. Improve contractor practices by implementing standard agreements or provisions for insurance, indemnification, flagging, and rights-of-entry. Update standard bid specifications to be used when contractors are working in railroad rights-of-way. The contractor will be required to have proper insurance in place before entering the right of way.

IV. Strategies to Improve Flagging

- a. Simplify projects and separate those that railroads agree do not need regular flagging services and share the list of such projects six months or a year ahead to eliminate the review time and expedite project work.
- b. Chart out the annual need for flagging by project and schedule and share with the railroad six months in advance of the need.
- c. Write (or rewrite) general flagging provisions to be consistent with certain railroad union requirements.

V. Strategies to Improve Grade Crossing Safety and Funding of Crossing Projects

- a. Conduct formal crossing diagnostics on an annual basis with DOT, Regulators, and Railroad personnel. Do not program a crossing project without a formal diagnostic study.
- b. Conduct safety-related communications and outreach to communities.

- c. Close crossings where appropriate.
- d. Replace at-grade crossing with grade-separation structures.
- e. Develop a Highway-Railroad Safety Risk Management Plan, including training for agency personnel as part of normal training curriculum.
- f. Streamline processes for the repair and resurfacing of highway-railroad crossings where the railroads manage the resurfacing of the crossings and the approaches to ensure quality of work while meeting schedules and operating timelines.
- g. Consider developing a memorandum of understanding that will address programming crossings across an entire corridor.
- h. Consider implementing the use of a lump-sum payment to the railroad for reconstructing the grade crossing, eliminating administrative overhead and simplifying the audit process for the agency.

VI. Strategies to Improve Training and Knowledge Transfer

- a. Develop a railroad project development guide and/or manual, and a related training program for project managers and others engaged on a regular basis with railroads or DOTs. Include references and resources such as AASHTO's [SHRP2 Railroad-DOT Mitigation Strategies webpage](#) and its [Innovation Library](#).

VII. Strategies to Improve Administration Processes

- a. Simplify administrative processes, such as payment by lump-sum amounts, which minimizes administrative costs and helps expedite agreement processing and delivery of projects.
- b. Adopt standard billing agreements that reduce the administrative costs of both the railroads and the highway agencies.
- c. Improve the collection and storing of data relating to railroad crossings and other grade-separated projects.
- d. Develop or use electronic agreement processing to keep all parties informed and updated on upcoming activities. The electronic workflow can also expedite the processing of agreements.