### Project Description
- CSX single mainline corridor, less than a mile in length, contains 5 active industrial tracks. Corridor is high speed, heavy traffic and heavy tonnage. It was determined that a new industrial lead track, located off the mainline, would serve these five customers and in turn would produce better efficiencies for railroad.

### Project Cost
- $1.47 Million

### Project Duration
- Proposed - Spring 2001 – Fall 2001
- Actual – Summer 2001 – Spring 2002

### AREMA Reference #
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**Case Study Overview**  
*(Template to be completed by subcommittee)*

### Project Understanding
- Timetable speed will remain 60 mph for this segment of track with temporary slow orders as the work was in process. Curfew times would only be available on Mondays and not to exceed 8 hours. Maximum allowable track time for any other day would not exceed 3 hours. Road crossing could be closed for a period of 1 week.

### Stakeholders
- **Railroad**
  - Transportation Department
  - Industrial Development Department

### Project Approach
**Design criteria**
- All construction according to CSX specifications.
- Roadway materials to be built in accordance with KYTC specifications.
- Maximum degree of curvature for industrial tracks is 12 degrees. (Should never exceed 17 degrees)
- All railroad construction is to not interfere with the wet land area.
- All track work and grading work to be performed by outside contractors.

**Operating Criteria**
- Time table speed to remain at 60 mph.

**Project management**
- Overall project management falls with the Project Engineer from Design & Construction. The Roadmaster will schedule track protection during the work and schedule work trains to dump ballast. In addition, the Roadmaster will provide final inspection of the track construction. Train Control will be responsible with progressing along with the track construction and manage all signal-related issues.

### Critical Design Elements
**Property Acquisition**
- Need to acquire two adjoining parcels of land in order to construct roadbed according to CSX specifications.

**Utility Service Availability**
- Utility service for crossing protection and industrial switch is not an issue. The 5 industrial switches are dispatched controlled and already have electrical service. Industrial lead switch required one pole drop and power was feed by a near by
**Case Study Overview**
(*Template to be completed by subcommittee*)

| electrical line.  
Grade-Crossing Considerations  
• Asphalt approaches for new road crossing shall fall off at a minimum of 1%, for a distance of 28 feet from the outside edge of rail. Extending further away, approaches can fall off no greater than 8% until it ties into the existing road.  
Construction Phasing  
• Grading construction will start after fiber optic cable has been relocated. Train Control will install buried signal wire in roadbed prior to subballast installation. Track contractor will start track work after subballast is installed and all material delivered. Train Control will work along with track contractor schedule in order to keep signal protection for the railroad. Track and Grading contractors will coordinate road crossing installation in order to minimize road crossing closure time. |

![Schematic diagram of the area showing various locations such as South Casky, Northbound Absolute, Free Flow Pkg, Continental Grain, Siemer Milling, Budd Talent, and Sun Chemical Corp.](image-url)
# Case Study Overview

*(Template to be completed by subcommittee)*

## Challenges

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<td><strong>•</strong> Complete project prior to CSX-UPS peak season, which begins November 23rd and ends December 25th.</td>
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<td><strong>•</strong> Start grading work prior to having all property acquisitions under contract. In addition, Fiber Optic company was waiting on final property lines to determine which side of track to relocate fiber optic cable.</td>
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<td><strong>•</strong> Completing grading work within 45 days was not attainable. Contractor experience 20 days of weather related delays.</td>
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<td><strong>•</strong> Redirect waterway for pipe outlet after grading contractor built pond for local property owner. Waterway originally exited into wet land/tree line area. Local property owner, as part of his construction contract with grading contractor, instructed the contractor to build a pond near the CSX property line and direct all ditch lines to the north to empty into pond. The pond elevation was higher than outlet end of pipe, causing water to pond up in water channel and soak into roadbed. CSX had grading contractor to close south water channel to pond and redirect waterway for the pipe in opposite direction.</td>
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<td><strong>•</strong> Providing a location to spot 8 ribbons of rail prior to grading work being completed.</td>
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<td><strong>•</strong> Finding a staging area to receive and distribute track material onto roadbed. Track contractor did not have same construction easement with local property owner.</td>
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<td><strong>•</strong> Dump ballast on the new main and surfacing the track prior to the track shifts. Project had limited access and trucking in ballast was not an option. Our original proposal was to construct the industrial lead up to the first track shift location on the south end, then shift the main on to the industrial lead and run trains through the industrial lead switch for 3 days. This meant that this section of corridor would operate without signals for 3 days. A week prior to cutover, Transportation rescinded their original plan of approval. We then decided to install a temporary turnout on the north end in order to dump ballast and surface track. Track shifts on the north and south ends would both occur during the same curfew.</td>
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## Lessons Learned

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<td><strong>•</strong> Need property acquisition to occur prior to construction season starting. Property acquisitions for project caused 2 months delay preventing the Grading Contractor from starting in April.</td>
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<td><strong>•</strong> Provide language in construction contract where Contractor will be penalized for not meeting the construction schedule. Granted, 20 days of delay was attributed to weather delays but other outside interference’s prevented caused additional delays.</td>
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