Regional Applied Research Effort

Cicero Rail Yard Study

Phase II

Region 5 SLT Meeting

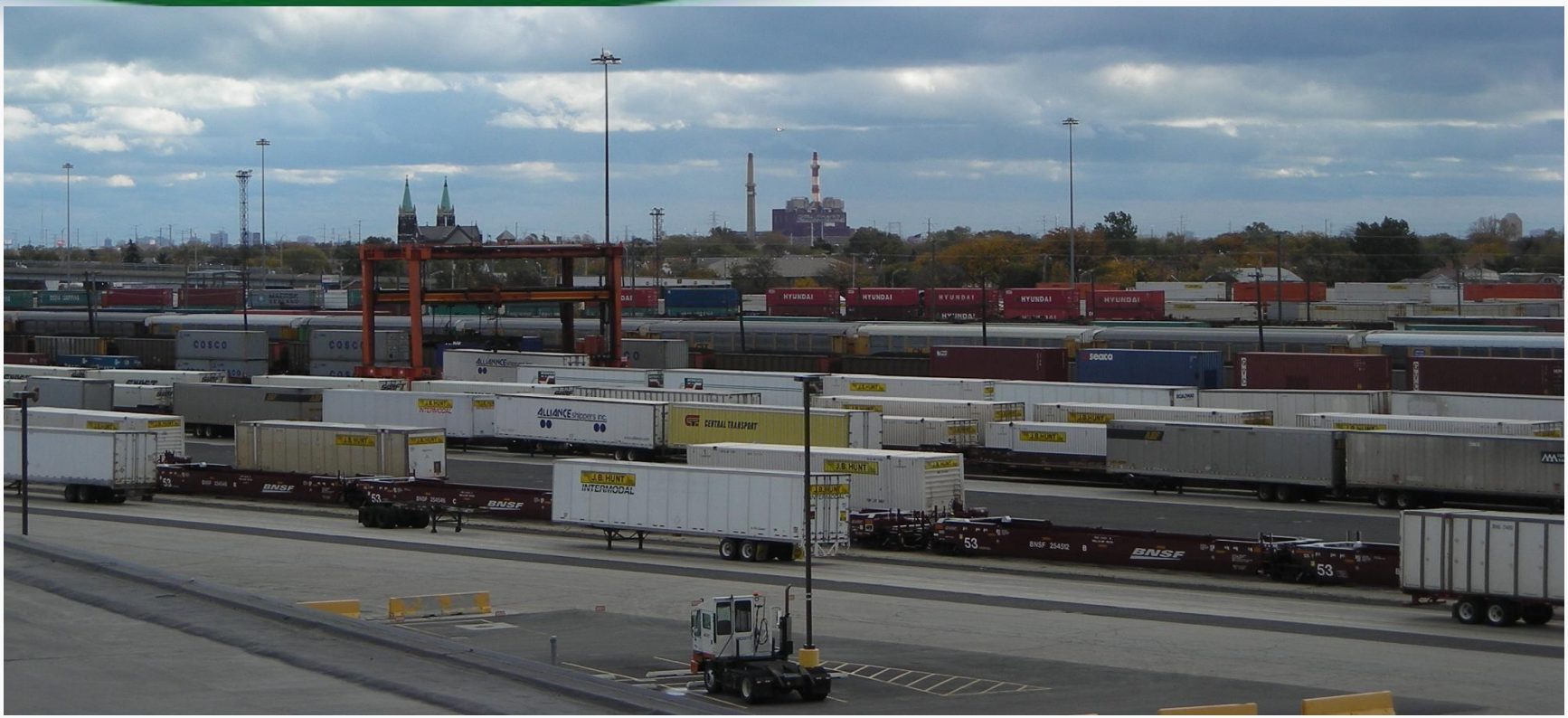
March 31, 2011

Phase I

- Emission Inventory and 3 month monitoring campaign in Dearborn Michigan
- Railyard impact to Dearborn site about 1 - 2% of annual PM2.5 NAAQS (15µg/m^3)

Phase II

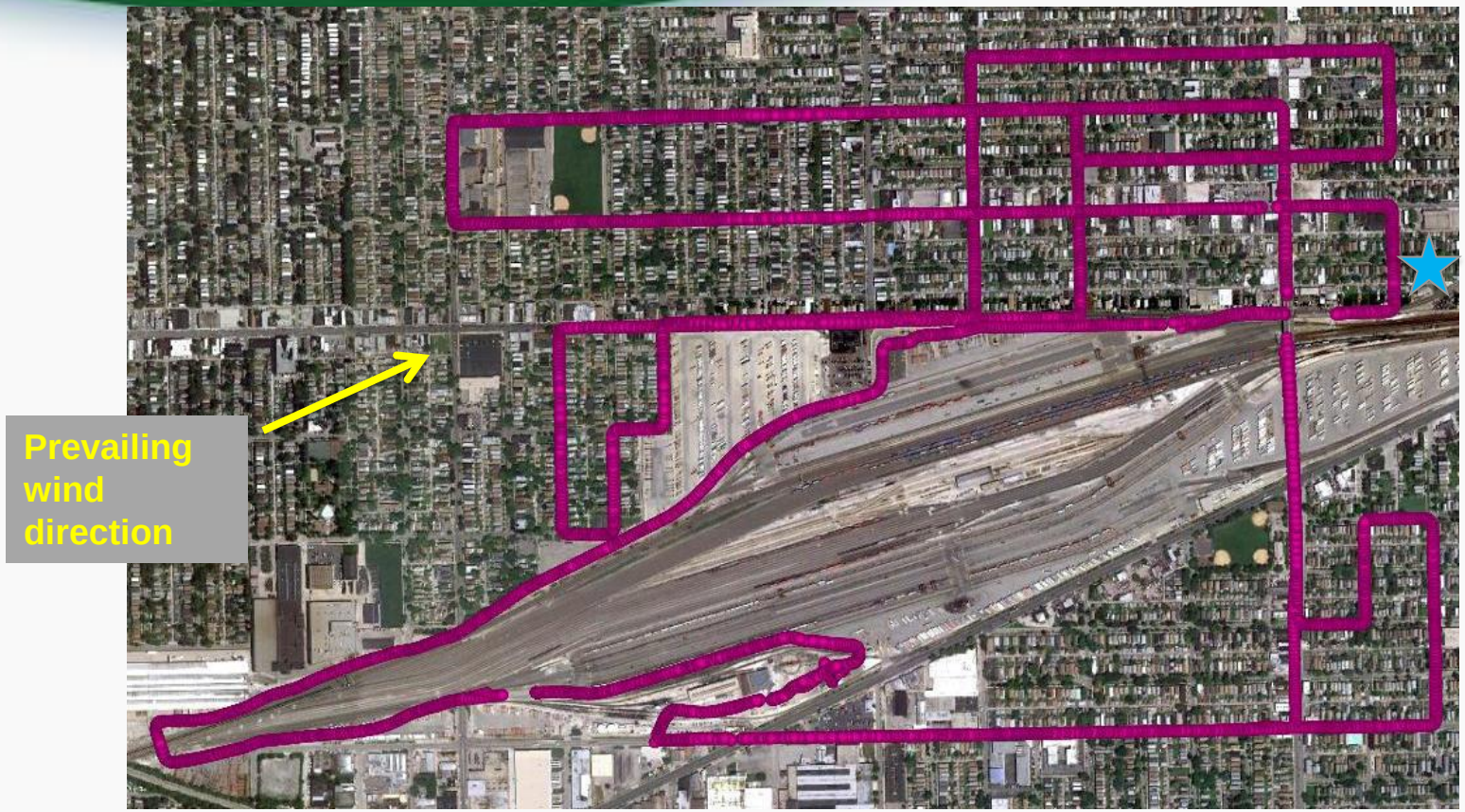
- Objectives
- Key Components
- Site Selection Criteria
- Rail Yard Specific Information
- Project Schedule
- Communication Strategy
- Reporting / Data Sharing



- BNSF Cicero Rail Yard selected for research study
  - Large, high-activity rail yard
  - Few other nearby sources
  - Dense low-traffic road network compatible for mobile monitoring approach

Two components:

Mobile monitoring & Stationary Site



Mobile Route and Fixed Site

Mobile Monitoring lasted 1 month
Stationary Site placed for 1 year

Mobile Monitoring Parameters:

- Carbon Monoxide
- Sulfur Dioxide
- Black Carbon
- Size-Resolved Particle Number
- Web camera
- *Fixed meteorological station

Stationary Site Parameters:

- Carbon Monoxide
- Sulfur Dioxide
- Black Carbon
- Oxides of Nitrogen
- Continuous $PM_{2.5}$
- Meteorological parameters
- Carbon Dioxide