



2021-2024 TIP Amendment: Baltimore Citywide Traffic Signals, Intelligent Transportation System and Safety Improvements

September 2020





Baltimore City Signal Timing Optimization

Project 1284

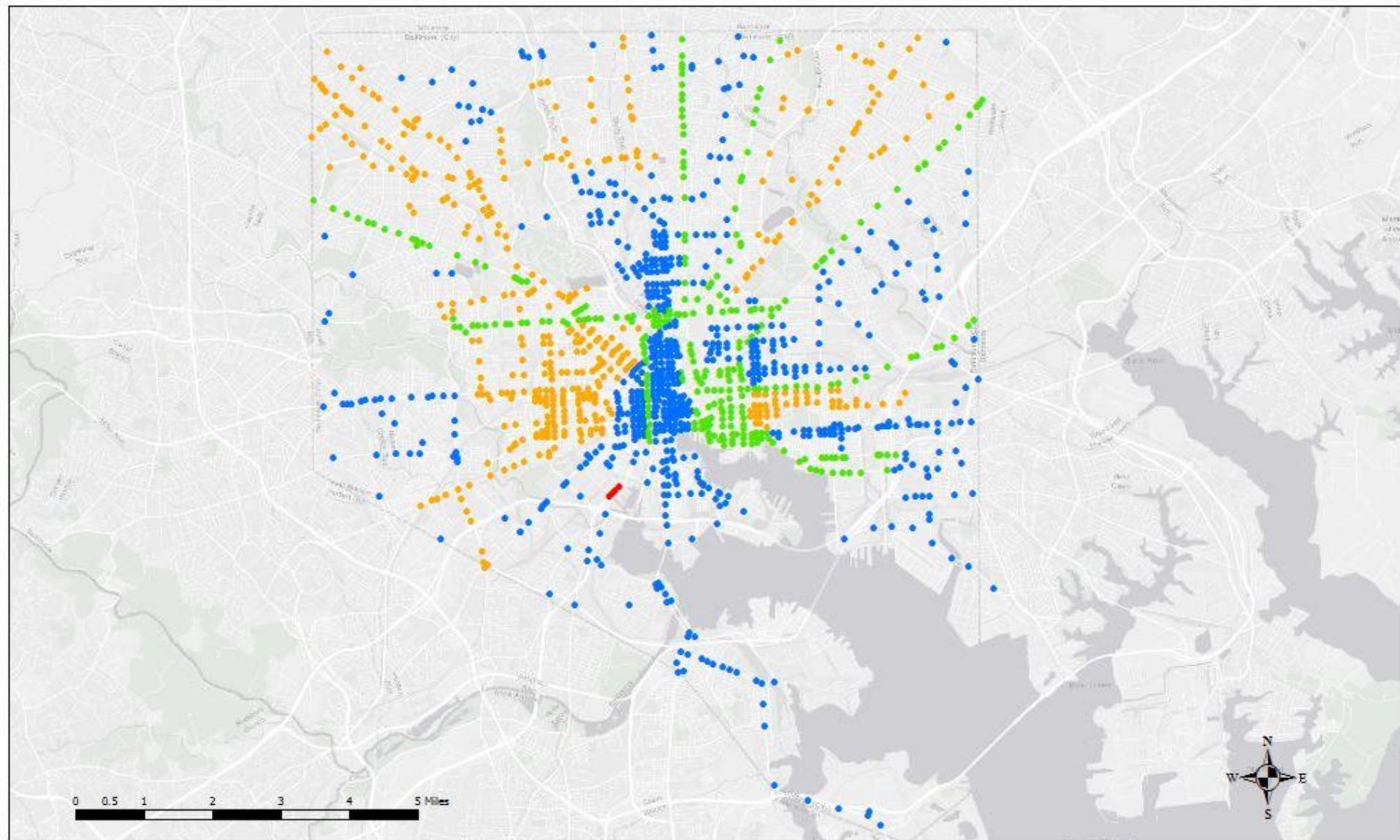


Project Scope



- Signal Timing Optimization at 1,100 Intersections
- Time of Day/ Events
 - AM Peak,
 - Mid-day,
 - PM Peak,
 - Weekends,
 - Overnight, and
 - Special events
 - Orioles baseball,
 - Ravens football





Baltimore Signal Timing Optimization Approach

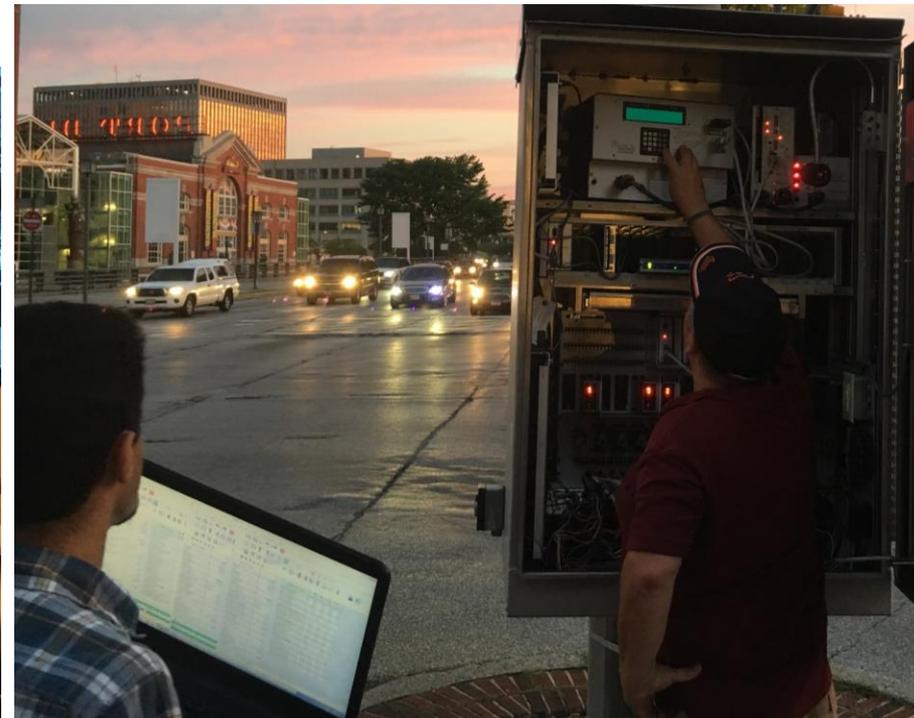
Shoestring Optimization (405 Signals) ●
 Optimized < 3 Years (292 Signals) ●
not in project

Full Optimization (655 Signals) ●
 Adaptive (4 signals) ●
●

Project Description



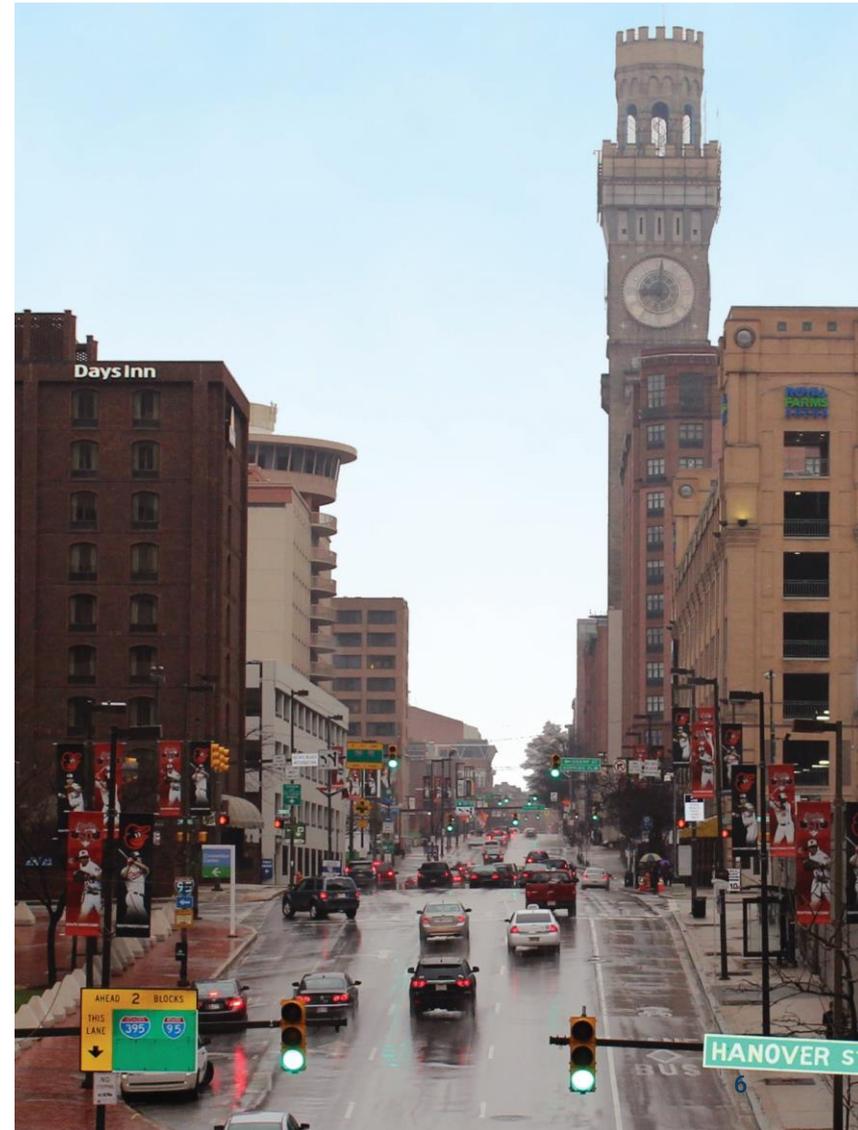
- Data collection
- Inventory and Asset Management of Signal Timing Data from TMC & Field
- Develop Citywide Simulation Models to Optimize Signal Timing & Phasing



Project Description (Cont.)



- Implementation of Optimized Signal Timing
- Field Observation, Before & After Timing Implementation
- Fine-Tuning of Optimized Signal Timings
- Performance Monitoring
- Cost-Benefit Analysis
- Staff Training on Controller Firmware, Programming, & Optimization





Project Cost & Schedule

- **Total Cost: \$4.5M**
 - Federal Aid: \$3.6M
 - Local Funds: \$900,000
- **Notice to Proceed: Expected Early 2021**
- **Completion: Expected End of 2023**

