

Parker Street Bridge Replacement

Lawrence, MA

Public Meeting – September 2, 2020



*Steel shown in blue for clarity, actual color will be black

Meeting With You Today

- Mike Ryan – *MBTA Project Manager*
- Gary Orlando – *Project Manager (Barletta)*
- Bob Penfield – *Design Manager (VHB)*
- Andrew Burkholder – *Senior Engineer (VHB)*



Meeting Outline

- Design-Build Program Overview
- Parker Street Bridge
 - Site Location / Existing Conditions
 - Project Needs and Goals
 - Bridge Layout and Design
 - Construction Staging
 - Traffic Impacts during Construction
 - Project Schedule
- Additional Public Outreach
- Questions

H91CN01 - MBTA Rail Bridge Replacements Design-Build

4



Intervale Road
Weston, MA



Bacon Street
Wellesley, MA



High Line
Somerville, MA



Lynn Fells Parkway
Melrose, MA



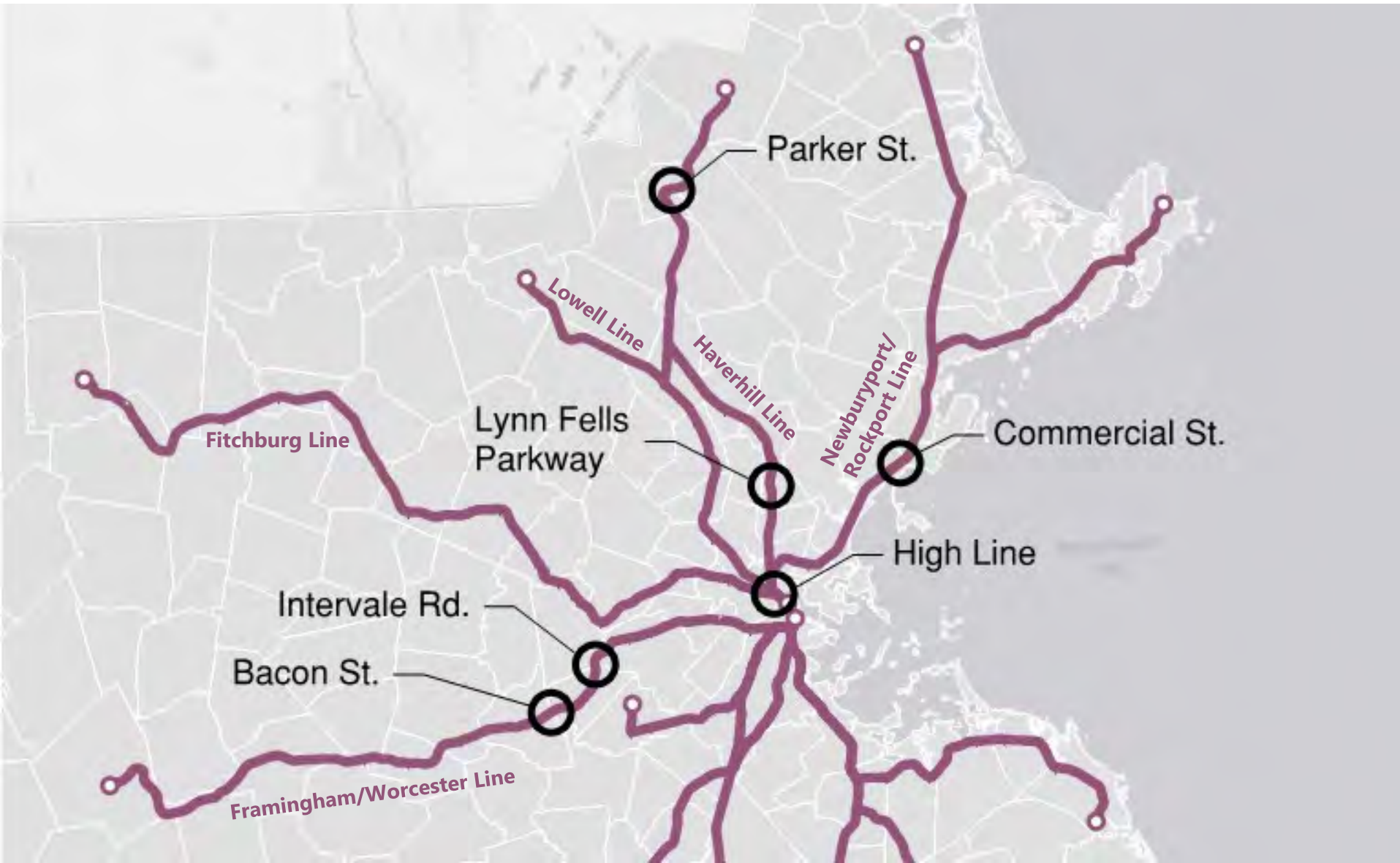
Parker Street
Lawrence, MA



Commercial Street
Lynn, MA

H91CN01 - MBTA Rail Bridge Replacements Design-Build

5



Program Timeline

- 2016: Preliminary Design of the Bridges
- 2017: MBTA Capital Delivery – Accelerate pace of projects
 - Six individual projects combined into 1 large “program”
 - Use Design-Build to accelerate and encourage more innovation
- 2018-2019: Design-Build procurement
 - 9 Teams proposed, 3 Shortlisted
 - Barletta/VHB Team was the selected “Best-Value”
 - Highest Tech Score AND Lowest Price
- 2019-2022 - Final Design and Construction
 - Specific schedule varies by bridge
 - Full Program complete August 2022





Parker Street – Existing Conditions

- Existing Bridge
 - Originally built in 1930
- Five track structure (3 active)
 - Steel girders with ballasted deck
 - Concrete gravity abutments
- Roadway
 - 40' face-to-face of curb
 - 9'-0" west sidewalk, 7'-9" east sidewalk (including existing piers)
- Utilities
 - Signal and fiber optic on bridge
 - PTC, power overhead
- Railroad Operations
 - 32 commuter trains on weekdays
 - 12 commuter trains on weekends
 - Amtrak and Pan Am freight as well





Parker Street – Project Need

- Existing bridge is in poor condition
 - Steel superstructure rated as 4 (out of 10)
- MBTA's continuing need to
 - Provide safe and efficient transportation for T riders and the public
 - Maintain and improve the state of good repair of its infrastructure





Parker Street – Project Goals

- Restore the State of Good Repair
- Replace the structurally deficient bridge with one that:
 - Is resilient, with a 75-yr expected service life
- Minimize impacts to:
 - Abutters
 - Commuter Rail riders
 - Users of Parker Street
 - Freight Operators





Parker Street – Bridge Design

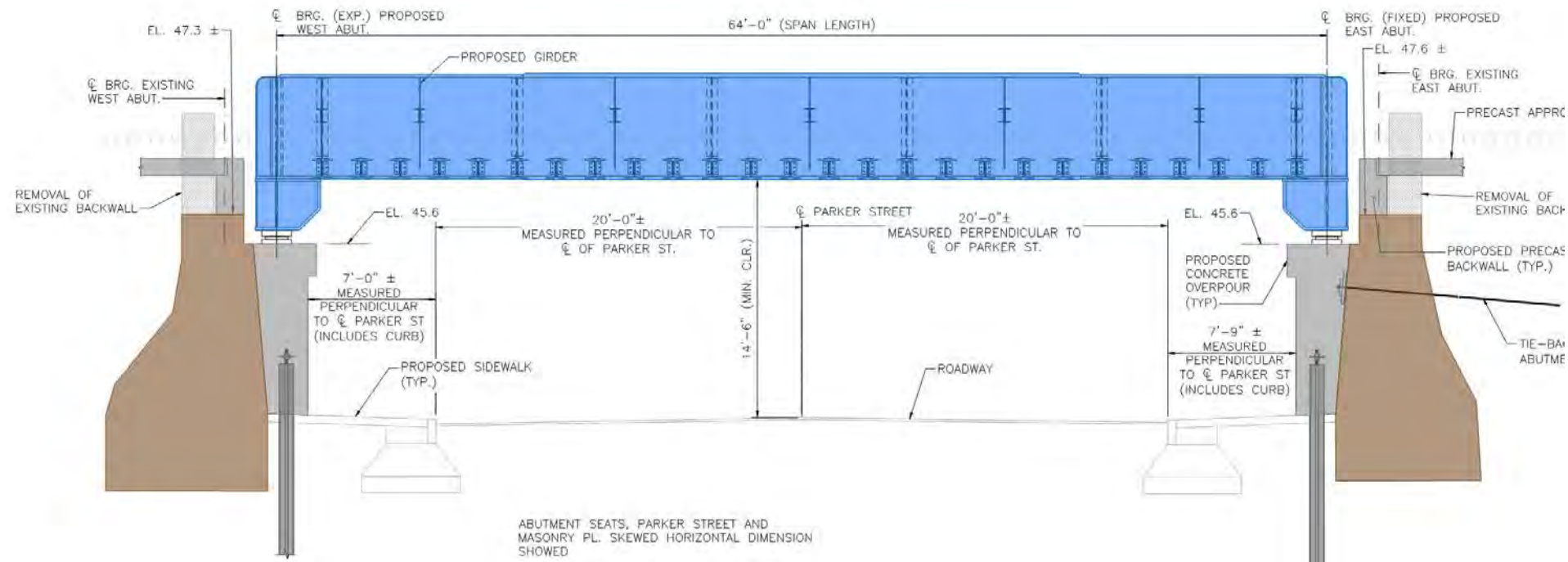
12

- Complete bridge replacement
 - Track profile and alignment to match existing
 - Use accelerated construction techniques to reduce impacts
- New structure
 - Single-span, built in front of existing abutments
- All construction within existing Right of Way
 - No anticipated easements required



Parker Street – Bridge Design

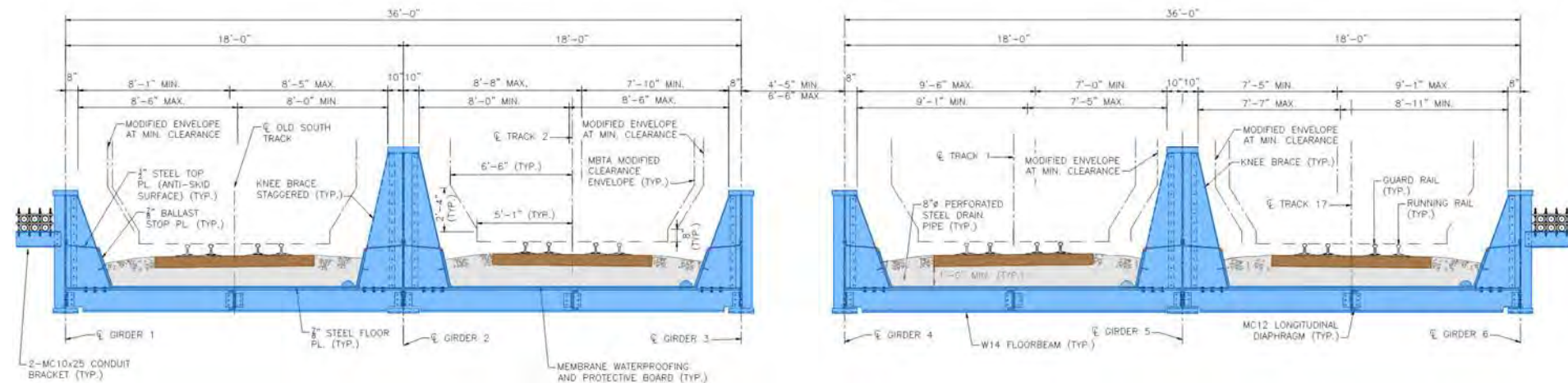
- New concrete abutments built in front of existing abutments
- Vertical clearance = 14'-6" (min.)
- Micropiles socketed into rock





Parker Street – Bridge Design

- Ballasted through-girder
- Supports 4 tracks
- Separate superstructures on common abutments





Parker Street – Final Condition

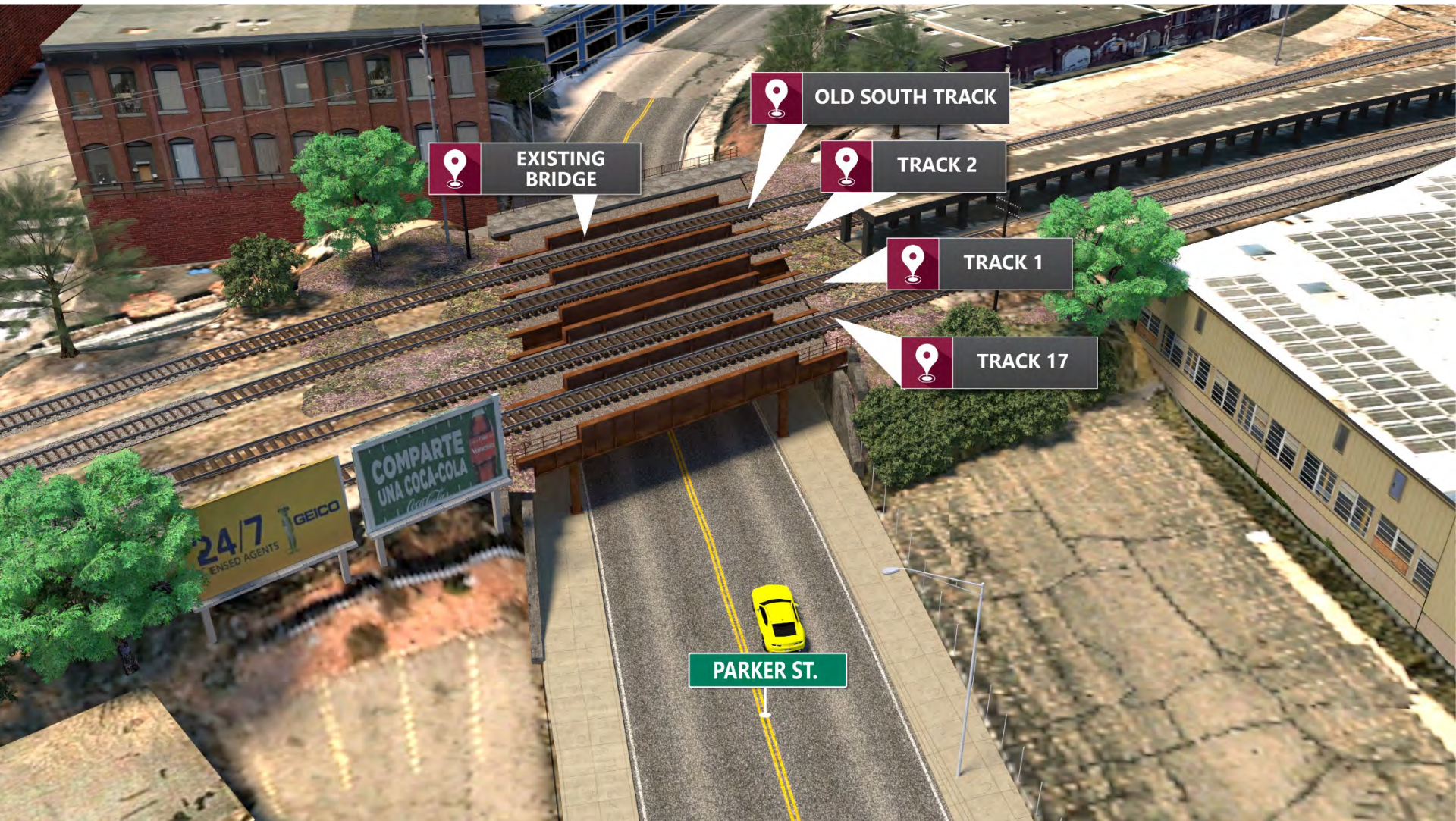
16





Construction Staging

17





Construction Staging

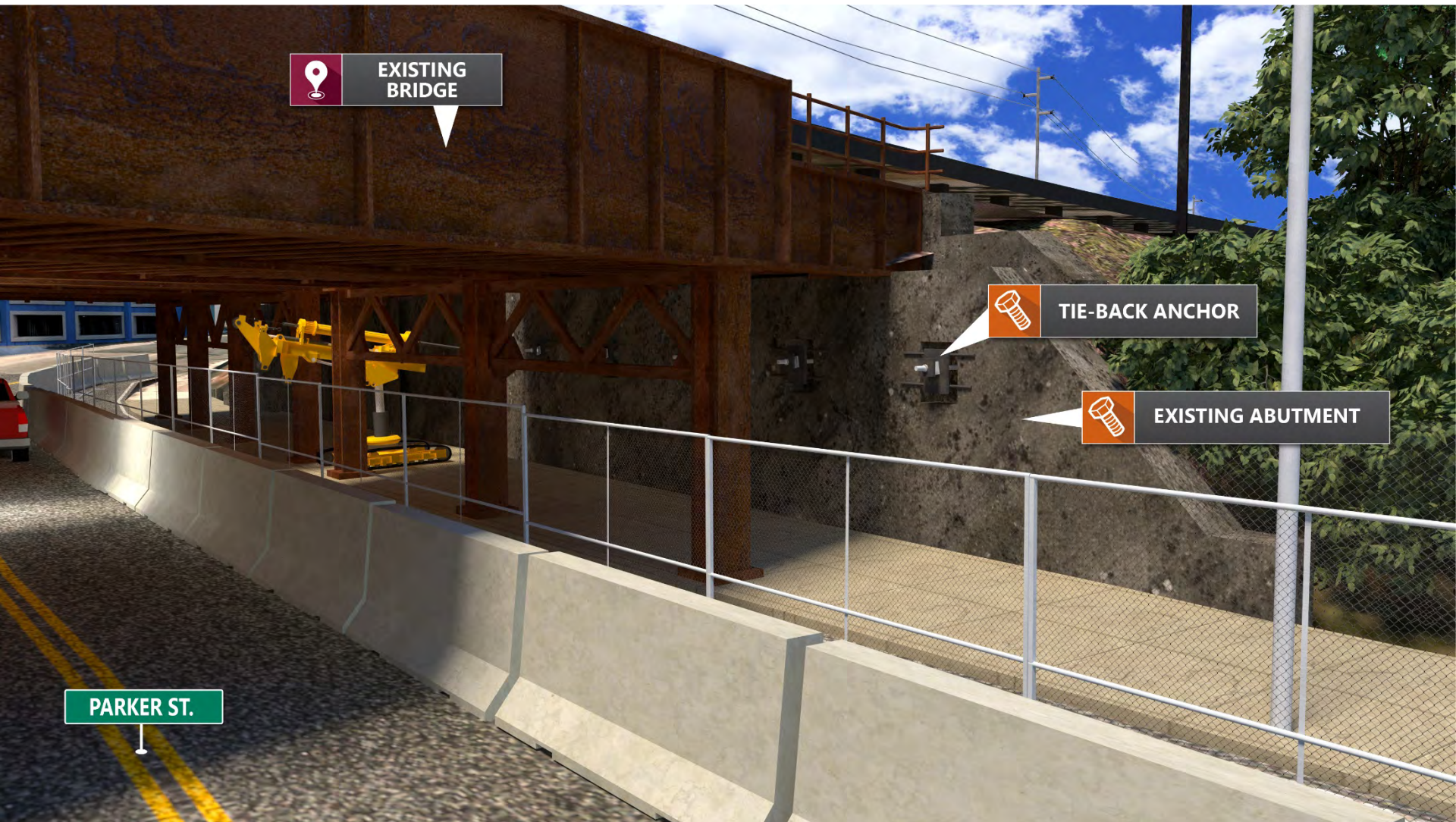
18





Construction Staging

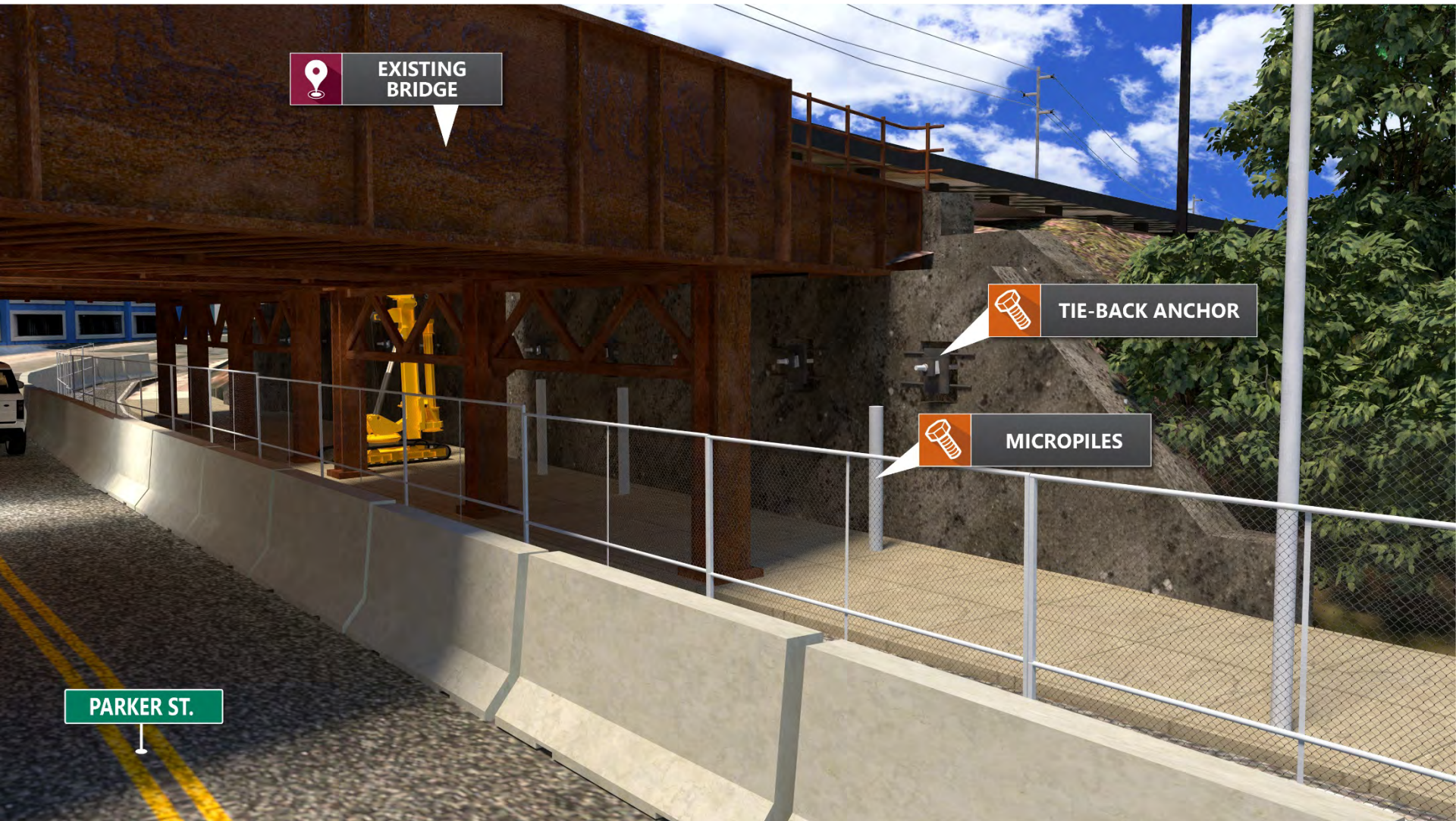
19





Construction Staging

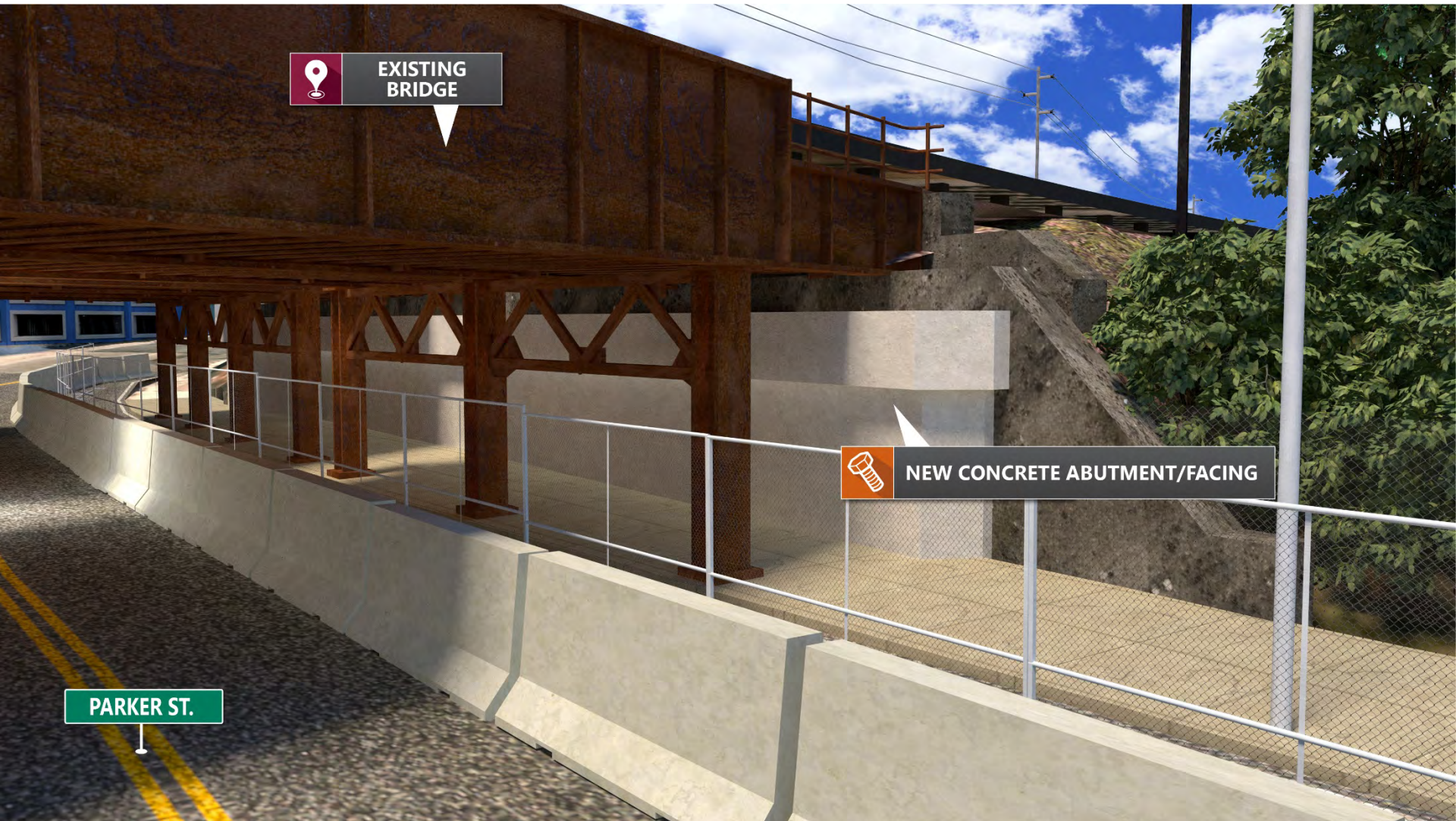
20





Construction Staging

21





Construction Staging

22





Construction Staging

23



OLD SOUTH TRACK OUT OF SERVICE



DEMO PORTION OF EXISTING BRIDGE

PARKER ST.

PARKER STREET CLOSED



Construction Staging

24





Construction Staging

25





Construction Staging

26





Construction Staging

27





Construction Staging

28



DEMO REMAINING PORTION OF
EXISTING NORTHERN SUPERSTRUCTURE



EXISTING
BRIDGE

PARKER ST.

PARKER STREET CLOSED

WEEKEND TRACK SHUTDOWN



Construction Staging

29





Construction Staging

30





Construction Staging

31





Construction Staging

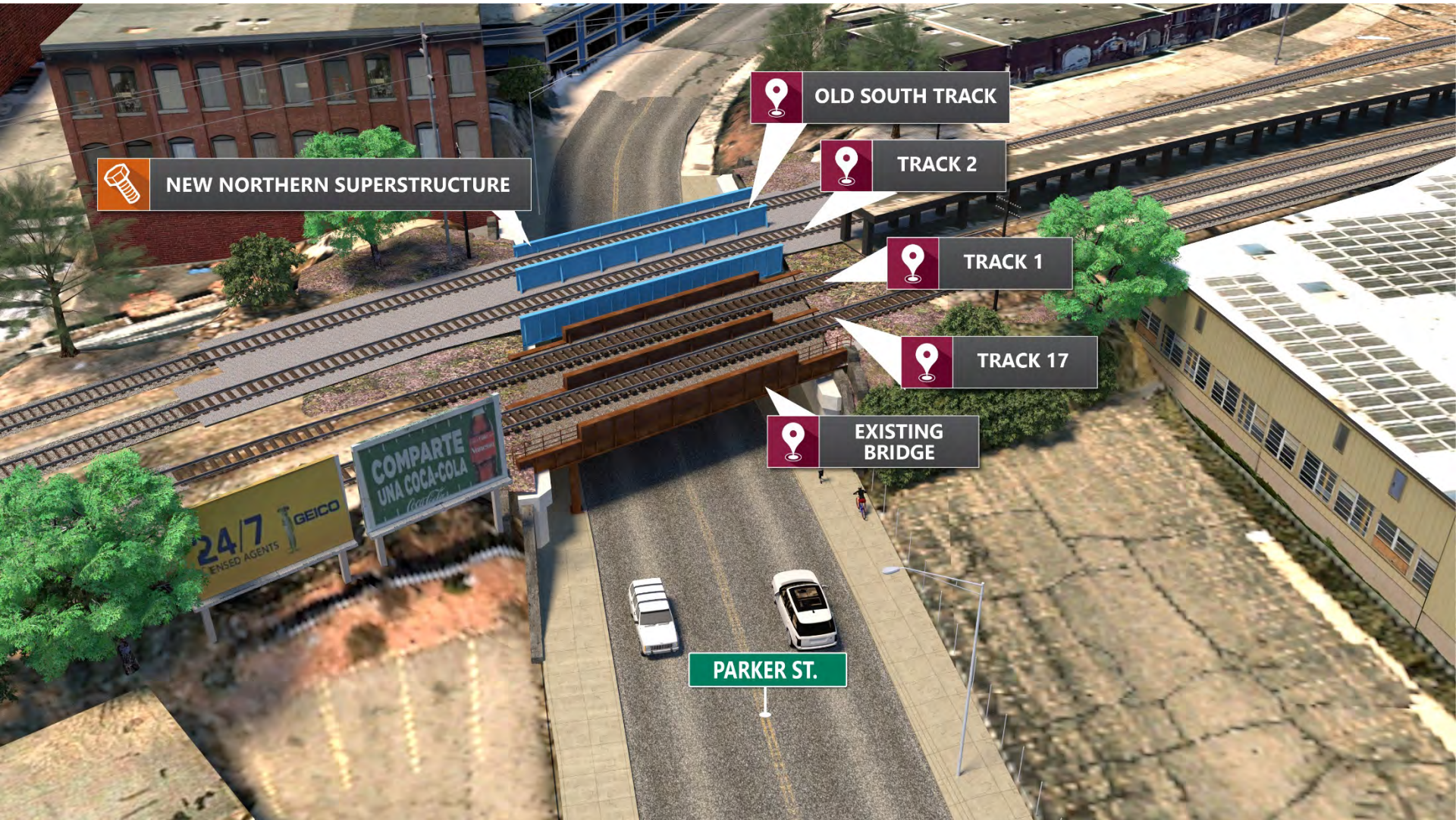
32





Construction Staging

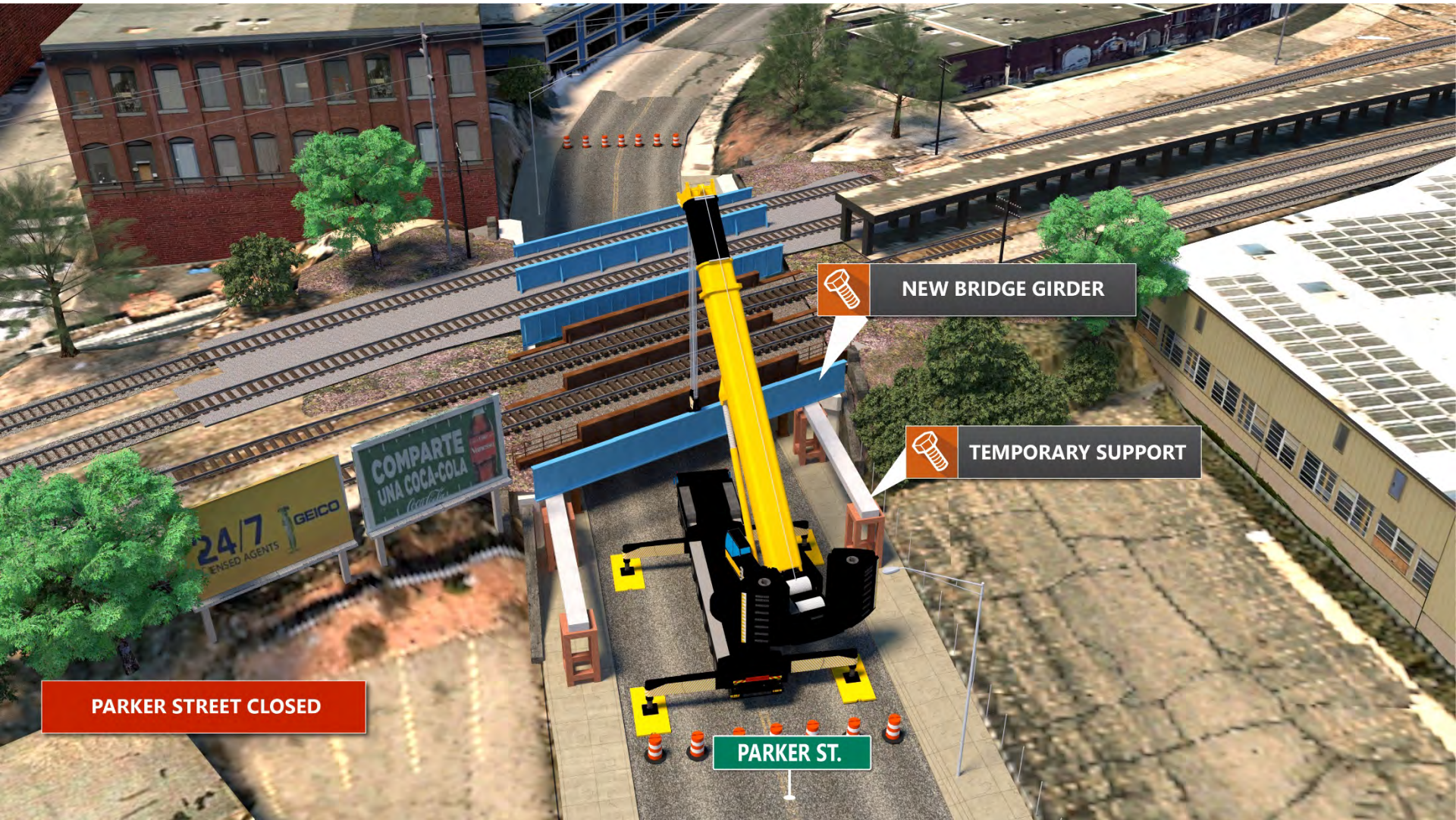
33





Construction Staging

34





Construction Staging

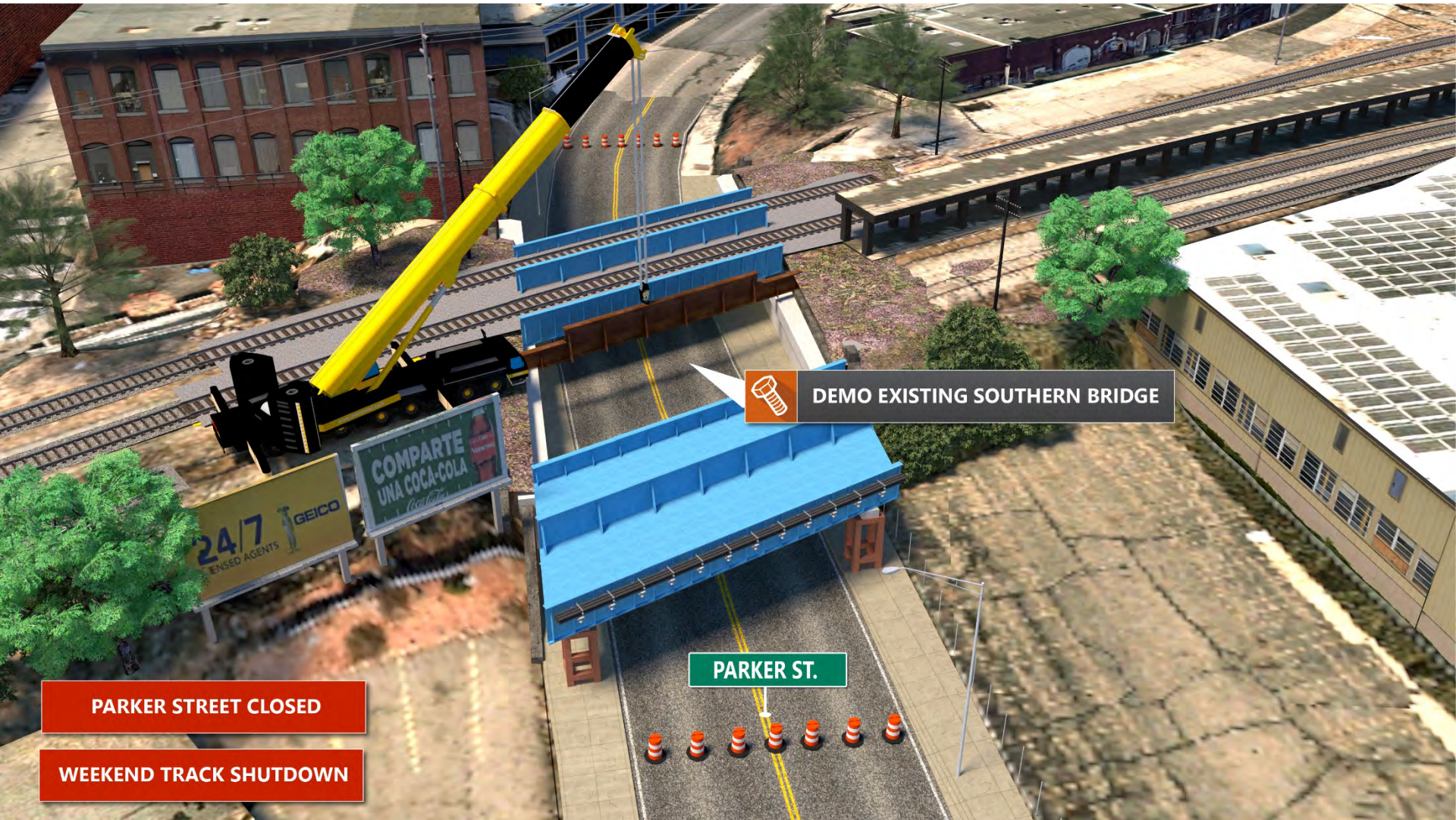
35





Construction Staging

36





Construction Staging

37



PRECAST APPROACH SLAB



PRECAST APPROACH SLAB

PARKER ST.

PARKER STREET CLOSED

WEEKEND TRACK SHUTDOWN



Construction Staging

38



PARKER STREET CLOSED

WEEKEND TRACK SHUTDOWN

PARKER ST.



SPMTs



Construction Staging

39





Construction Staging

40





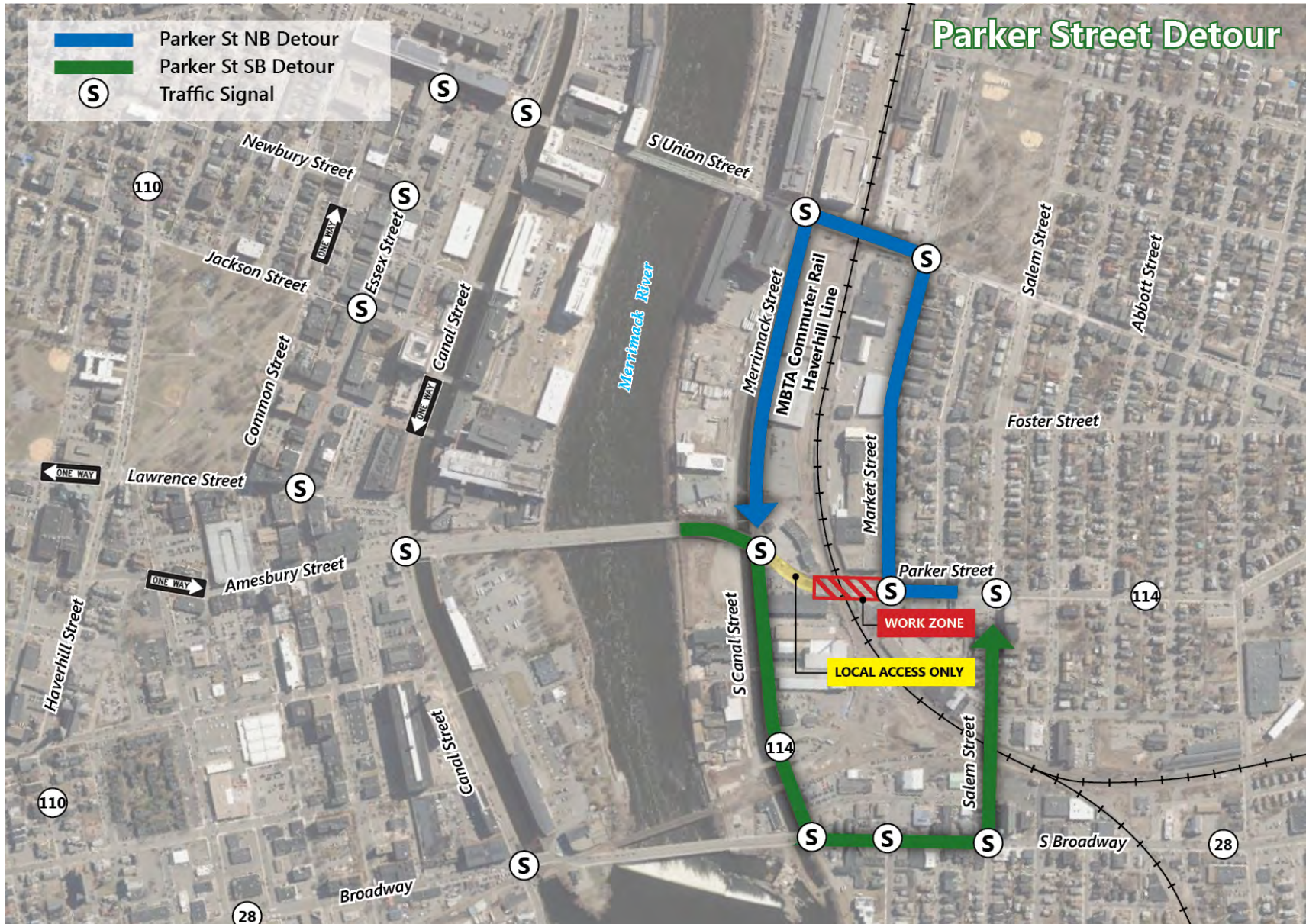
Construction Staging

41





Traffic Detours





Traffic Detours





Project Status and Schedule

■ Construction

- Site Clearing – Fall 2020
- Site Prep - Fall 2020
- Foundation Work – Winter 2020
- Partial Demo of Existing Bridge – Fall / Winter 2020
- Construct New Bridge – Spring/Summer 2021
- Move New Bridge Into Place – Summer/Fall 2021
- Site Cleanup – Fall 2021





How Can You Reach Us?

- Project Website:
www.MBTA.com/ParkerStBridge
- Email:
ParkerStBridge@MBTA.com
- 24-Hour Hotline:
(617) 571-7878

Questions?

