

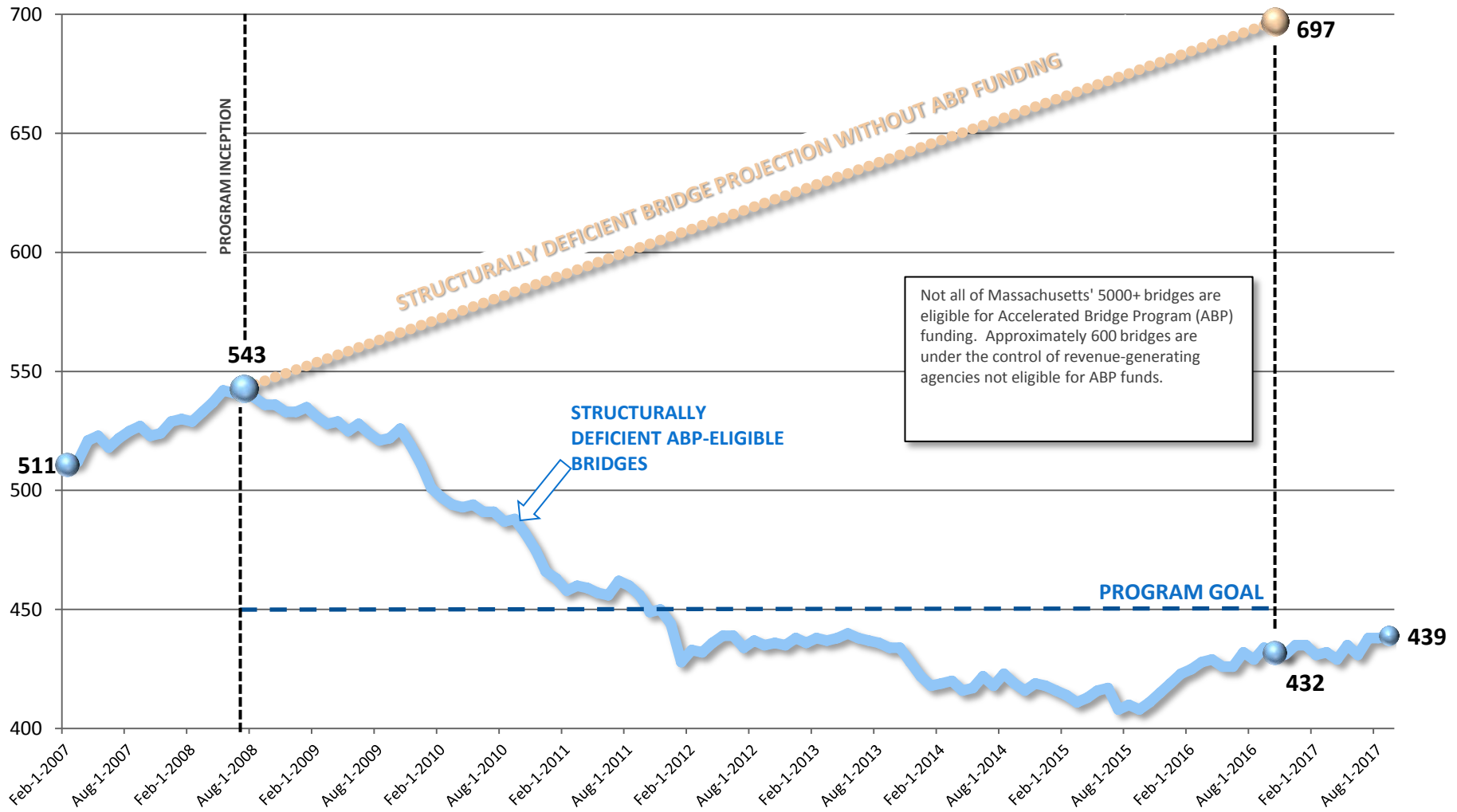
Accelerated Bridge Program Mega Projects

Progress Briefing
September 2017

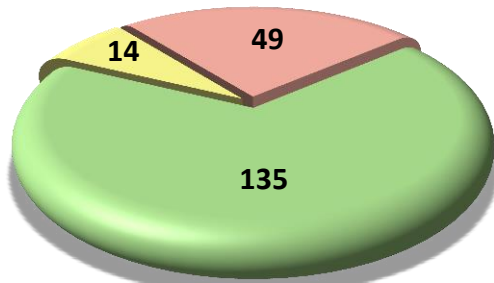
Program Overview

- \$3 billion Accelerated Bridge Program (ABP) to reduce the number of structurally deficient bridges in the state system, while creating thousands of construction jobs.
- 5 Mega Projects – over \$100M in value
- 2 Mega Projects completed
- 3 Mega Projects scheduled for 2018 completion

ABP-ELIGIBLE STRUCTURALLY DEFICIENT BRIDGE STATUS



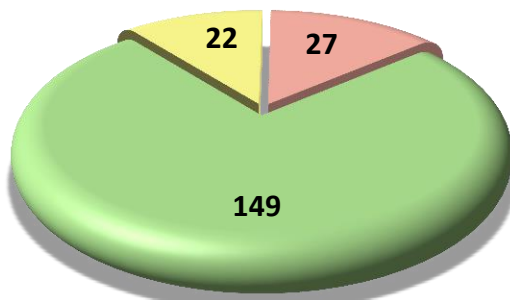
Construction Contract Schedule Performance Indicator (Current Construction Completion vs Original Contract Completion)



On-Time = 68.2%

- Current Completion Forecast within Original Contract Completion
- Current Completion Forecast less than 90 Days behind Original Contract Completion
- Current Completion Forecast greater than 90 Days behind Original Contract Completion

Construction Contract Cost Performance Indicator (Current Construction Cost Estimate vs Original Contract Encumbrance)



On-Budget = 75.3%

- Current Construction Cost Estimate within Original Contract Budget
- Current Construction Cost Estimate less than 10% over Original Contract Budget
- Current Construction Cost Estimate greater than 10% over Original Contract Budget

- 68% of projects completed by original schedule contract completion date
- 75% of projects within 90 days of original schedule contract completion date
- 75% of projects on budget
- 86% of projects within 10% of budget

Braga Bridge - Fall River

Original Construction Budget \$227,728,310 (\$140.5M of ABP funding and \$87.2M of non-ABP funding)

Current Construction Budget \$233,199,689 (\$133.36M of ABP funding and \$99.8M of non-ABP funding)

Current Status Complete

Schedule Full Beneficial Use was declared in July 2016 for the ABP-funded portion of the project, Substantial Completion of the entire project was declared in October 2016



Burns Bridge – Worcester

Original Construction Budget \$110,320,139

Current Construction Budget \$108,320,139

Current Status Complete

Schedule Substantially Completed on August 29, 2015



Longfellow Bridge

Original Construction Budget \$303,655,500 (\$297,503,041 of ABP Funding + \$6,152,459 of Non-ABP Funding)

Current Construction Budget \$288,655,500 (\$282,503,041 of ABP Funding + \$6,152,459 of Non-ABP Funding)

Current Status In Construction

Schedule Completion contracted for Fall of 2016, current forecast is for late spring of 2018

Accomplishments:

- Arch Rib sandblasting, cleaning and painting continues
- Arch Rib steel repairs continues
- Painting of Spans continues
- Inbound and Outbound Shooflies are in service
- Pedestrian Bridge construction continues



Longfellow Bridge

Exposure: Schedule remains a significant concern and MassDOT continues to work with the contractor to reduce overall construction duration.

- Design/Build entity to maximize productivity both while the Red Line is service and during scheduled closures.
- Prior schedules had indicated a spring 2019 completion; however, the contractor has provided a recovery schedule that re-sequences the remaining scope and brings the forecast completion back to May 2018.
- Additional factors that have led to the completion delay include:
 - re-design of the steam line
(requested by the stakeholders)
 - galvanizing and painting
incompatibility
 - steel fit-up, alignment and tolerance
issues
 - delayed design document approvals



Fore River Bridge

Original Construction Budget \$272,117,937

Current Construction Budget \$268,488,136

Current Status In Construction

Schedule Completion contracted for Winter 2017; currently forecasting December of 2018

Accomplishments:

- Phase 1 testing completed
- Roadway & rotary reconstruction continues in Quincy
- Electrical installations completed
- Quincy & Weymouth approach work continues
- Lane shift and partial demo of existing bridge for approach work connection complete
- Phase 1 single-lane opening of new bridge in each direction
- Full opening scheduled for mid-September



Fore River Bridge

Exposure: While several challenges have impacted progress on this project; the majority of the delay was centered around steel fabrication. The most current forecasted Project completion is late Fall 2018.

The current project budget does not include enough construction phase contingency to account for both of the following alleged impacts (see next slide). However, in review of the information that has been presented by the DB Entity, MassDOT does not find cause to agree with either of the impacts and maintains that the DB Entity is obligated to complete the project at a cost that is within the approved project budget, however, MassDOT has agreed to enter into negotiations to resolve outstanding financial issues.

Other delays included the Weymouth Tower South foundation and the fabrication and delivery of the Quincy and Weymouth Tower structural steel.



Fore River Bridge

Sheave* Re-Fabrication Claim: The DB Entity alleges that it has been impacted as a result of the preliminary design specification issues, has incurred over \$28.5 million of additional cost, and has been impacted by greater than one full year of delay to the construction schedule.

Submittal Delay Claim: The DB Entity has submitted a Claim to request compensation for cost and schedule impacts. These alleged impacts occurred in the process of MassDOT's review of the DB Entity's final design of the bridge towers. The DB Entity claims that alleged submittal response delays have caused an additional \$6 million of costs to complete the project.

MassDOT has informed the contractor that it does not find any merit in this claim.

*Sheaves are the large wheels used to raise/lower the lift span of the bridge



Whittier Bridge

Original Construction Budget \$328,249,208

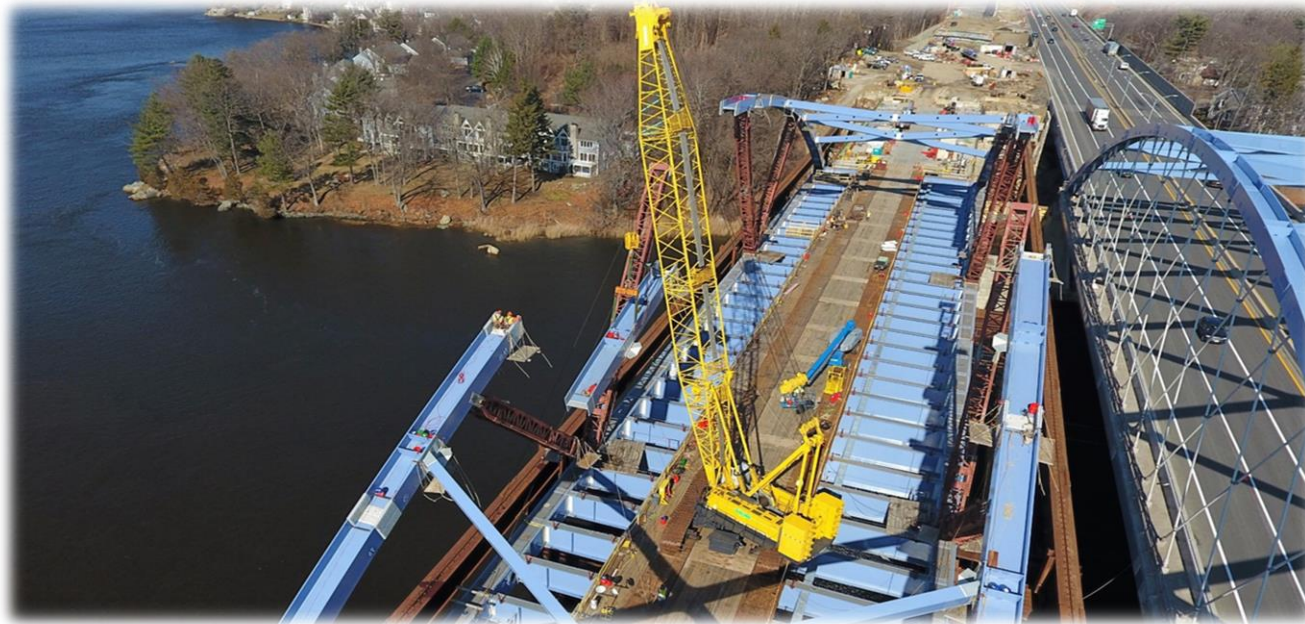
Current Construction Budget \$325,502,208

Current Status In Construction

Schedule Completion contracted for Fall 2016, currently forecasting Summer of 2018 completion

Accomplishments:

- Erect Arch Ribs & Lateral Bracing Span 3 SB
- F/R/P Pier Cap & Beam Seats Pier 1 SB
- Drainage construction between Pine Hill and Whittier Bridge ongoing
- Utility installs on the Route 110 Bridge continues
- Southbound Arch Erection continues



Whittier Bridge

Exposure: Several issues have impacted progress on this project:

- Contractor quality control issues
- Changes on pier column design
- Change in scope to complete the railroad bridge
- Differing subsurface conditions

The current schedule forecast completion in Summer 2018 (a 18-20 month delay).

MassDOT has requested recovery options from the Design/Build entity to mitigate, at least a portion, of the lost time.



Questions?