

# 455-507 115-kV Line Wood Pole Asset Condition Project

Planning Advisory Committee Meeting

December 16<sup>th</sup>, 2020

# Agenda

- Project Background
- Project Location
- Project Needs
- Project Scope
  - Preferred Solution
  - Alternatives
- Summary

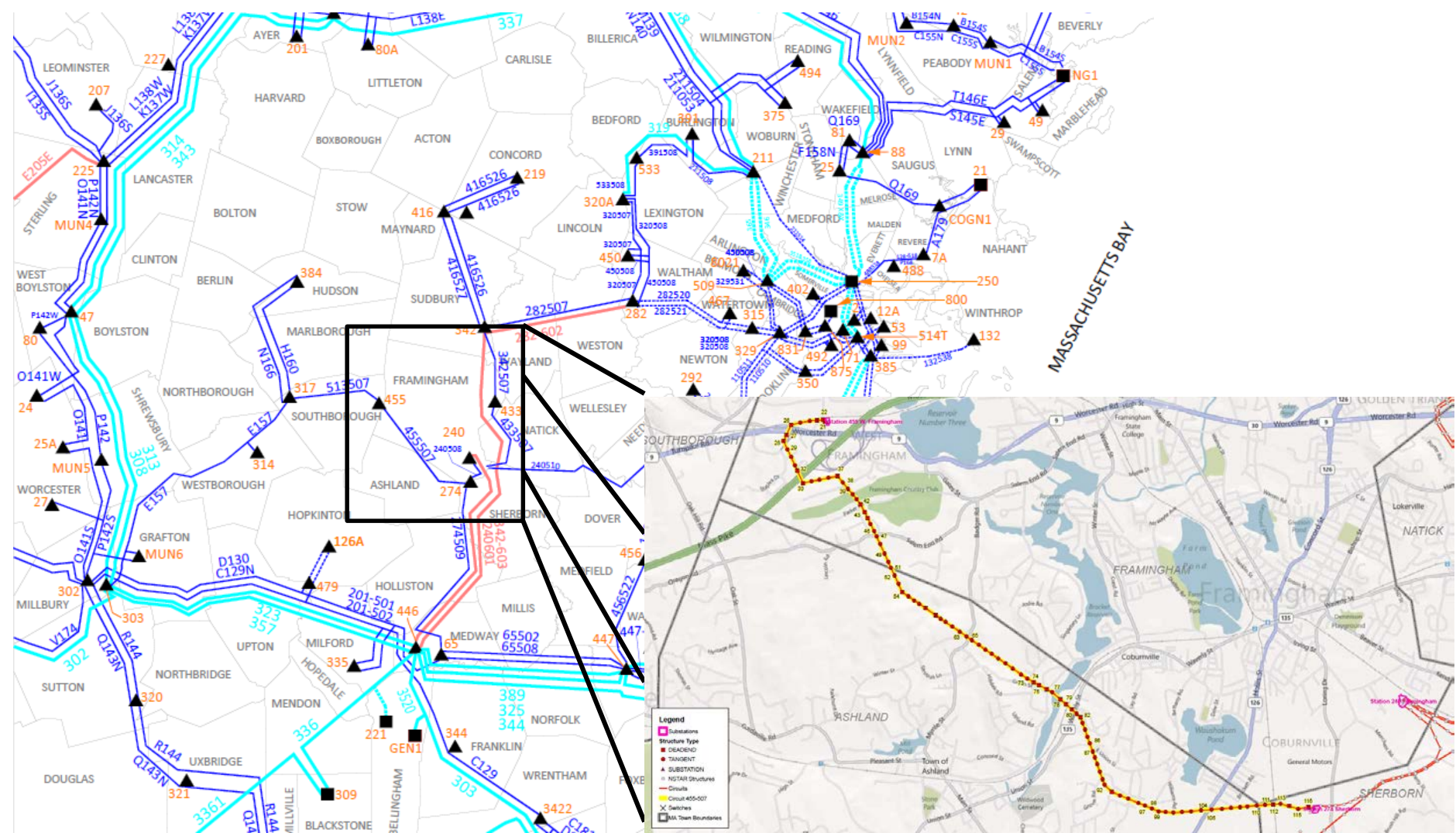
# Project Background

- The 455-507 115-kV line is 5.75 miles long and runs between Sherborn and Framingham Substations
- Originally installed in 1971
  - Many structures were replaced between 1997 and 2019
  - Remaining original structures (all wood) are approaching 50 years old



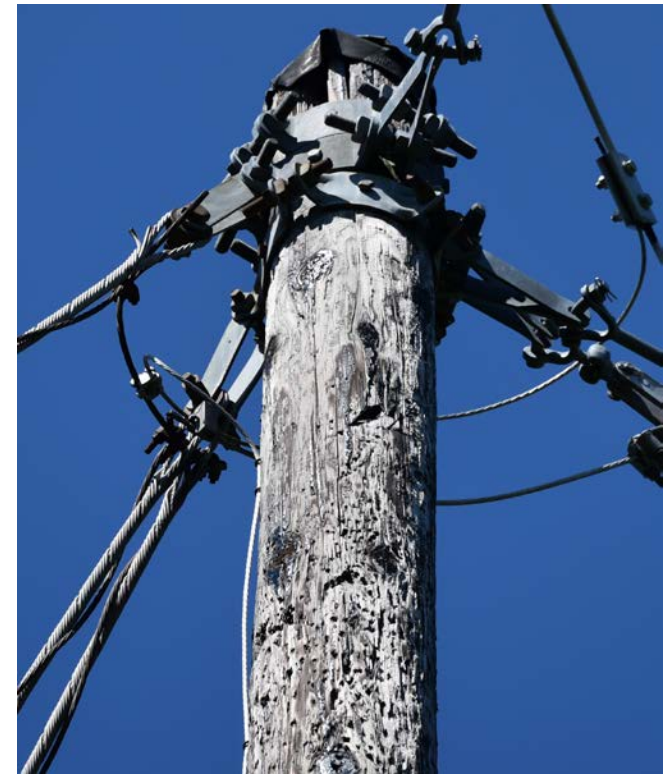
Typical Wood Structure on  
Line 455-507

# Project Location



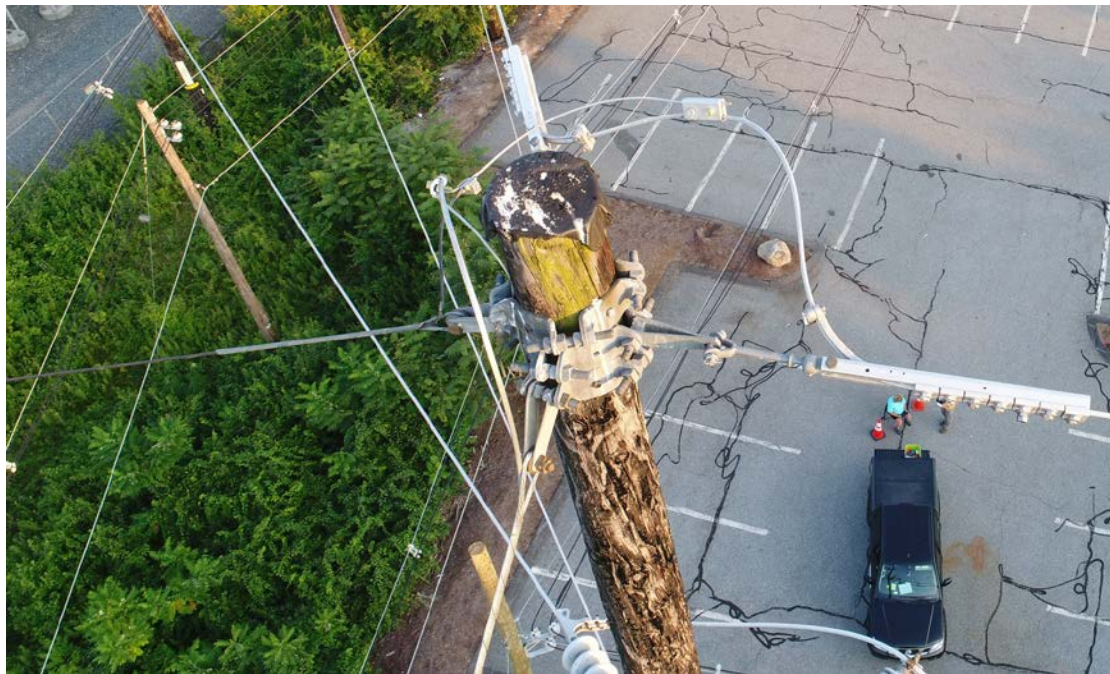
# Project Needs – Asset Condition – Wood Structure Replacement

- The majority of remaining wood structures are priority C and have known defects
  - Priority C (moderate defect) structures have one or more of the following deficiencies:
    - Pole top rot
    - Split pole top
    - Decay
- Replacement of wood structures will extend the life of the line and increase reliability by avoiding further deterioration from rot and insect/woodpecker damage

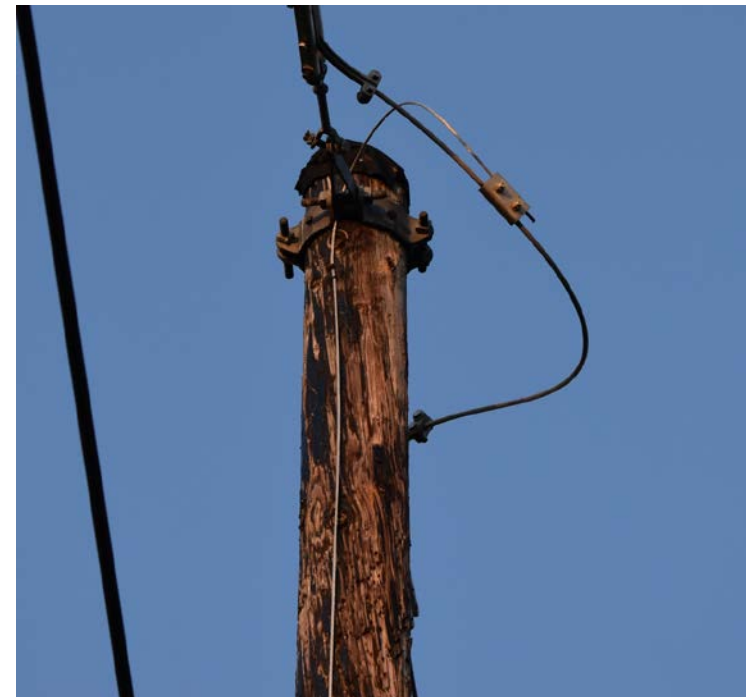


Splits, Breaks, & Decay –  
Structure #33

# Project Needs – Asset Condition – Wood Structure Replacement



Splits, Breaks, & Decay –  
Structure #22



Splits, Breaks, & Decay –  
Structure #23

# Project Scope

## Preferred Solution

- Replacement of 18 wooden structures with weathering steel pole structures
  - 13 “Priority C” (moderate defect) structures
  - 5 “Priority B” (minimal defect) structures
    - Being replaced rather than repaired to take advantage of access and permitting efforts
  - One remaining wood structure is newer, classified as “Priority A,” and will not be replaced
- Replacement of 0.3 miles of 795 ACSR (like-for-like) along the line to reduce the number of line splices
- **Estimated Cost = \$5.191 Million (-25% / +50%)**
- **Projected In-service date: Q1 2021**

## Alternatives

- Replace only “Priority C” structures
  - Remaining “Priority B” wood structures are nearing “Priority C” and will need to be replaced in the near future

# Questions

