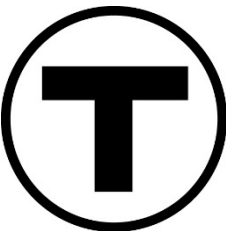


Alewife Legislative Briefing

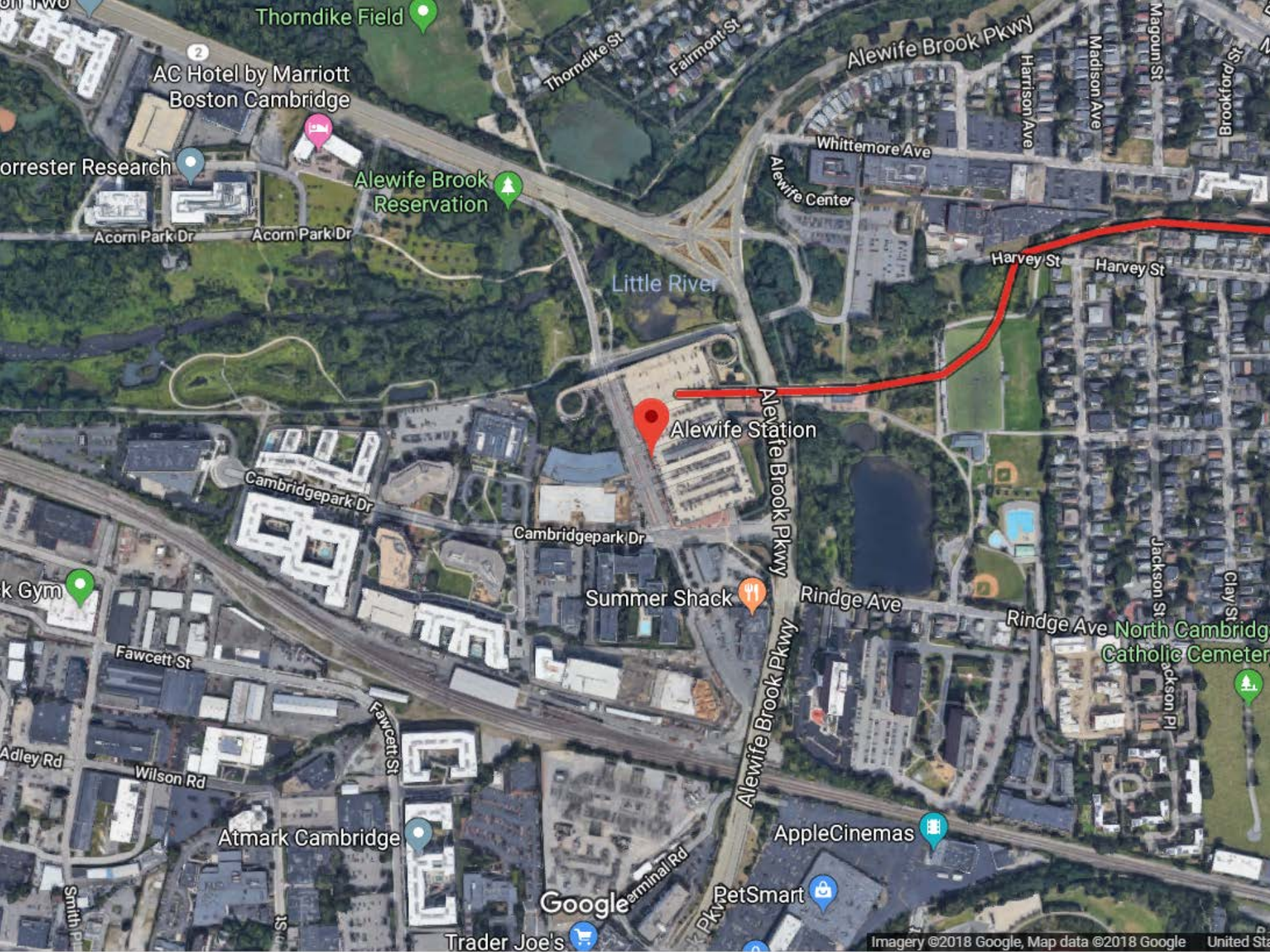
August 24, 2018



History of Alewife Station

- Opened in 1985 as terminus of Red Line Northwest Extension
- Built as an alternative to Route 2 extension into Cambridge and Boston, and Red Line extension to Lexington
- Located at the terminus of Route 2 (at Alewife Brook Parkway)
- Includes 2700-space parking garage





AC Hotel by Marriott
Boston Cambridge

Alewife Brook
Reservation

Alewife Station

Summer Shack

AppleCinemas

Google

Trader Joe's

Imagery ©2018 Google, Map data ©2018 Google United States

Alewife Garage Work

- Earlier Repairs (2012-2016)
 - Limited concrete repairs
 - Shoring within garage
- Current Interim Repairs (2018-2020)
 - Advertised for construction 7/2/2018
 - NTP to Contractor issued 8/23/2018
 - Timeframe for repairs: 20 months to substantial completion
 - Goal: To continue safe operation and make all spaces available
- Long-term plan is being developed to address broader strategic needs



Current Contracted Interim Repairs

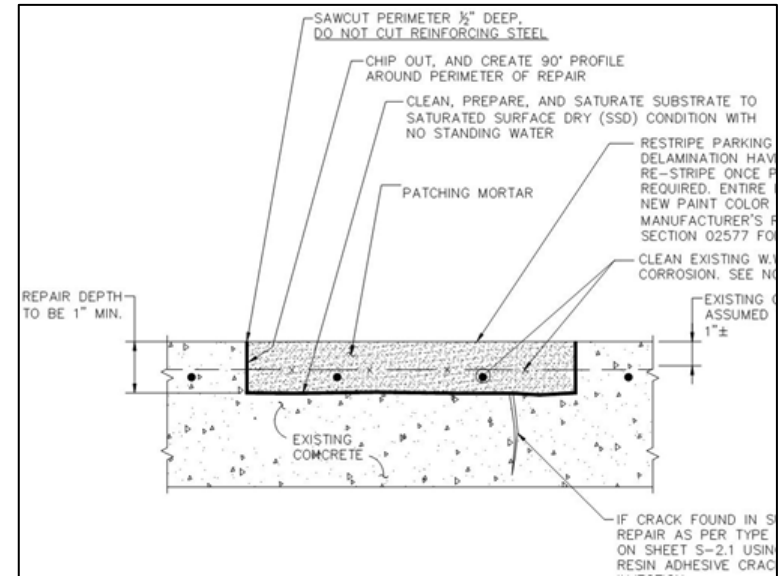
- Deck Repairs (will eliminate plates)
- Girder Repairs (will eliminate shoring)
- Beam Repairs (will eliminate shoring)
- Joint Sealant Repairs (will eliminate plates)
- Other Non-Structural Repairs (will improve experience)
 - Lighting repairs
 - Drainage maintenance and repairs
 - Door and hardware replacement
 - Stair riser and rail repair



Deck Repair



Existing Deck Concrete



General Repair Procedure

- Remove steel plates (as required)
- Sawcut perimeter
- Remove deteriorating concrete
- Clean the area to be patched
- Place new concrete
- Allow concrete to set



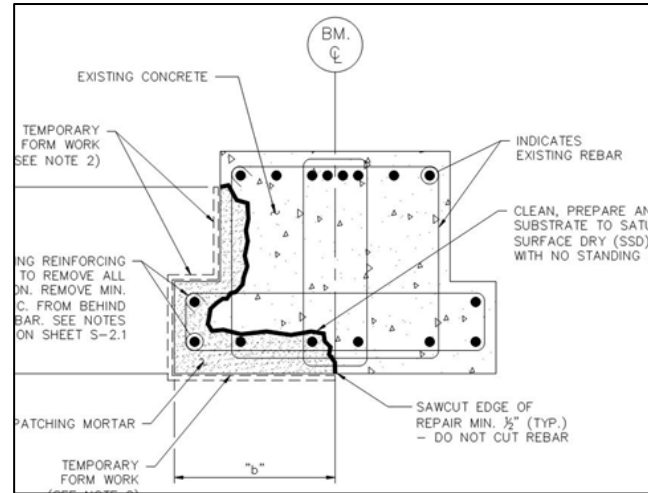
Girder Repair (Typical)



Shored Girder



Prior Completed Repair



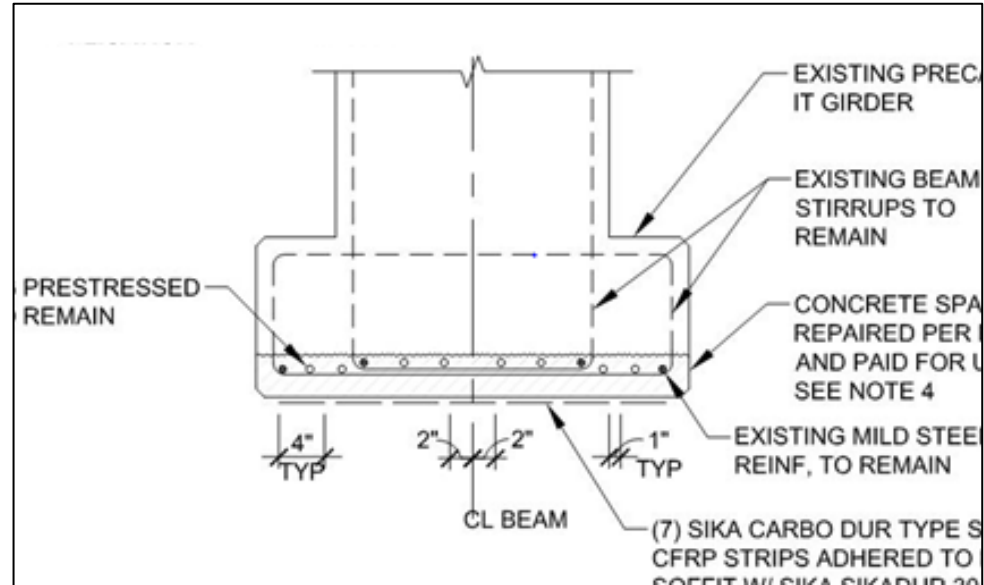
General Repair Procedure

- Sawcut perimeter
- Remove deteriorating concrete
- Clean and augment steel reinforcement
- Install pins (if required)
- Install formwork
- Apply concrete
- Allow concrete to set

Girder Repair (Carbon Fiber Strips)



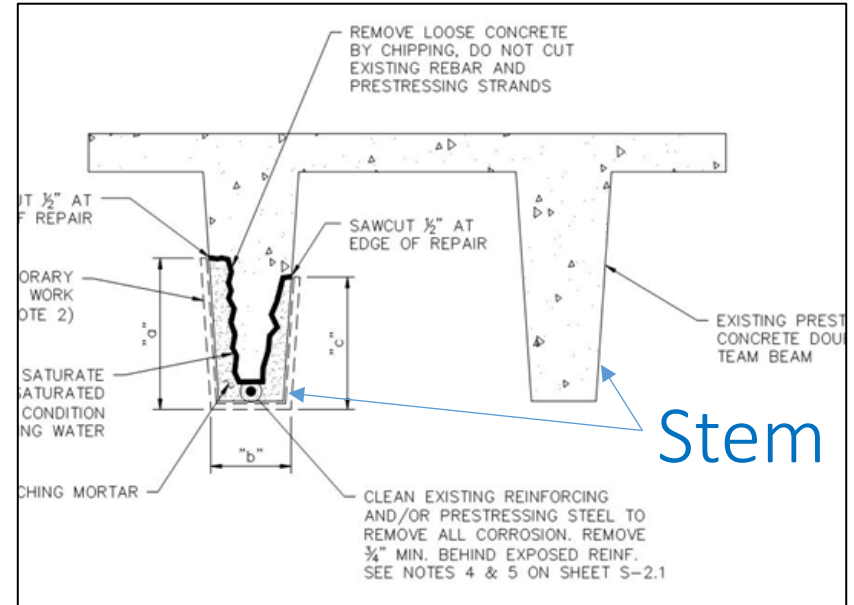
Example of Carbon Fiber Repair



General Repair Procedure

- Sawcut perimeter
- Remove deteriorating concrete
- Clean and augment steel reinforcement
- Install formwork
- Apply concrete
- Allow concrete to set
- Prepare concrete surface
- Apply carbon fiber system
- Remove temporary shoring

Double Tee Beam Stem Repair (Typical)



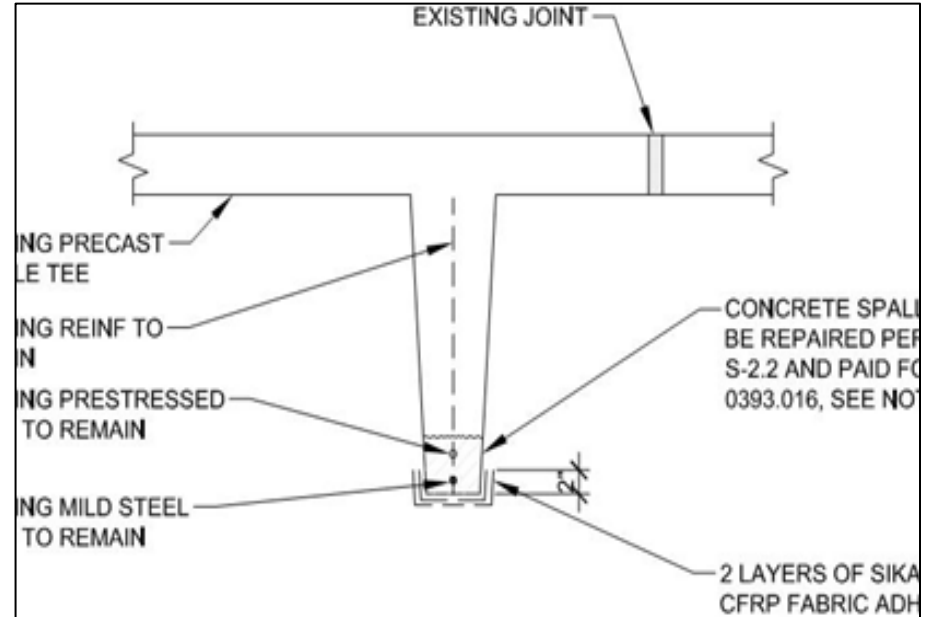
General Repair Procedure

- Sawcut perimeter
- Remove deteriorating concrete
- Clean and augment steel reinforcement
- Install pins (if required)
- Install formwork
- Apply concrete
- Allow concrete to set

Double Tee Beam Stem Repair (Carbon Fiber)



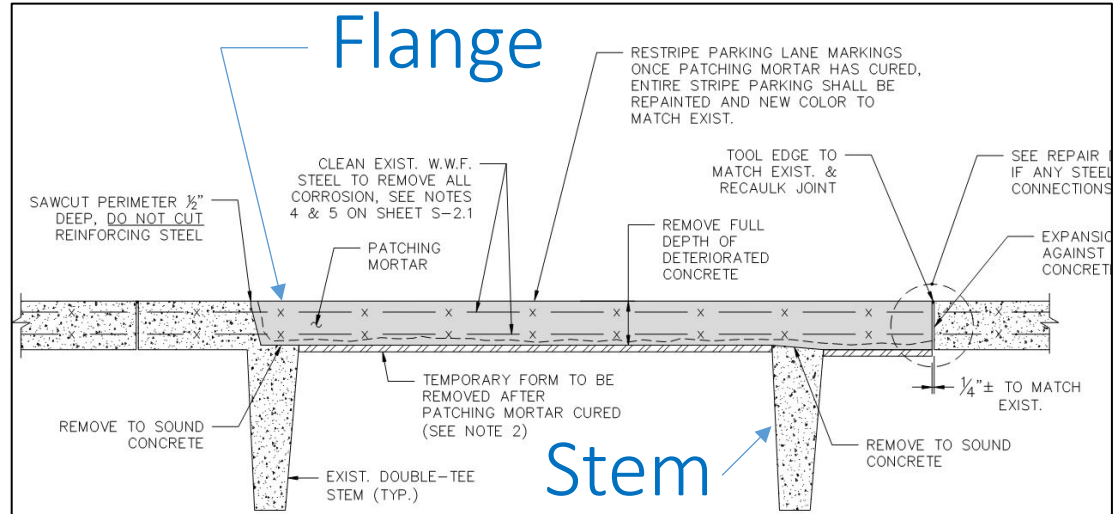
Example of Carbon Fiber Repair



General Repair Procedure

- Sawcut perimeter
- Remove deteriorating concrete
- Clean and augment steel reinforcement
- Install formwork
- Apply concrete
- Allow concrete to set
- Prepare concrete surface
- Apply carbon fiber system
- Remove temporary shoring

Full Depth T-Beam Flange Repair



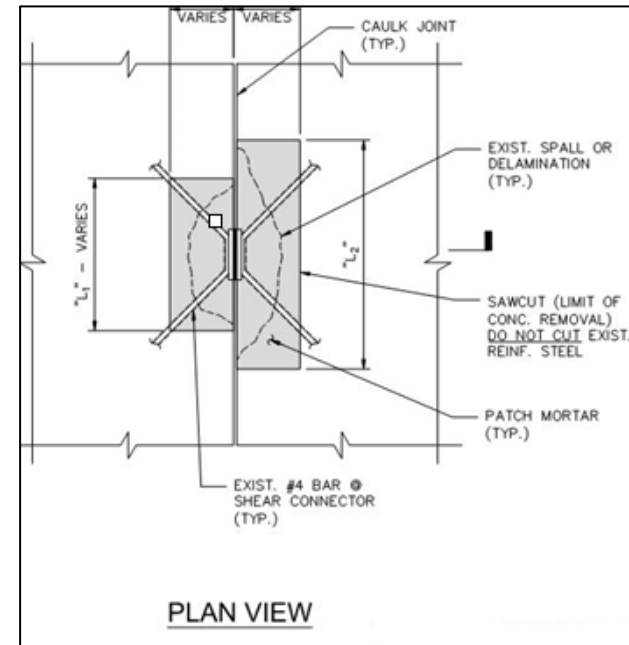
General Repair Procedure

- Relocate underside lighting
- Sawcut perimeter
- Remove deteriorating concrete
- Clean and augment steel reinforcement
- Install formwork on underside of repair area
- Place concrete
- Allow concrete to set

Flange to Flange Connection Repair

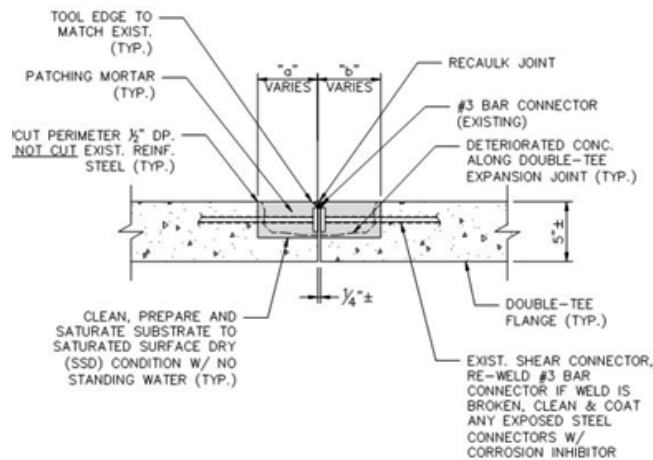


Example of Flange Connection Repair



General Repair Procedure

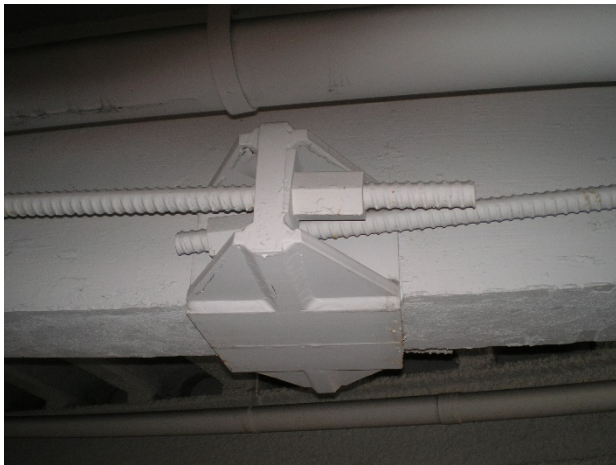
- Remove steel plates (as required)
- Sawcut perimeter
- Remove deteriorating concrete
- Clean embedded plate and reinforcement
- Re-weld connection if required
- Place new concrete
- Allow concrete to set



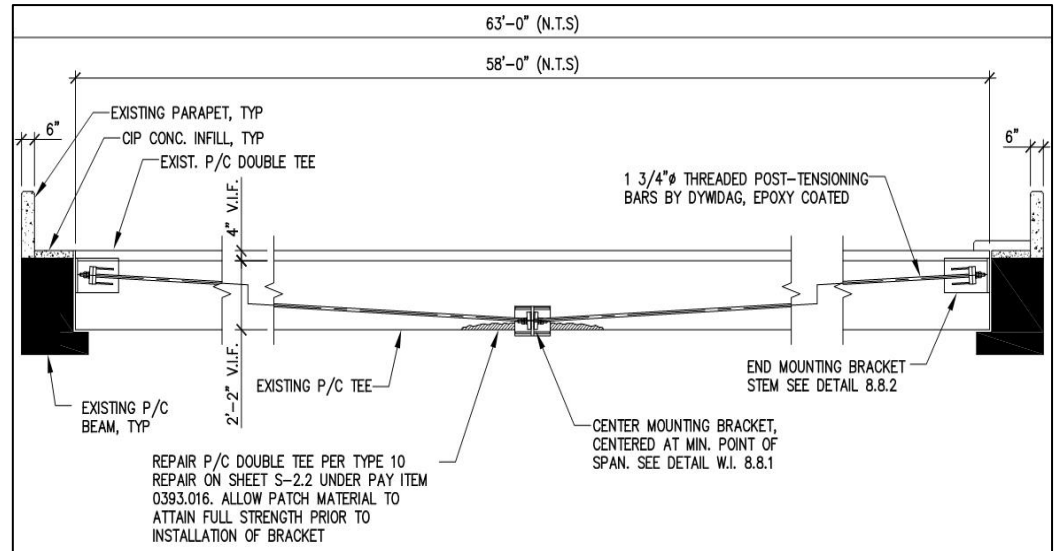
SECTION 1



Post-Tensioned Repair (External)



Typical Post-Tensioned Repair



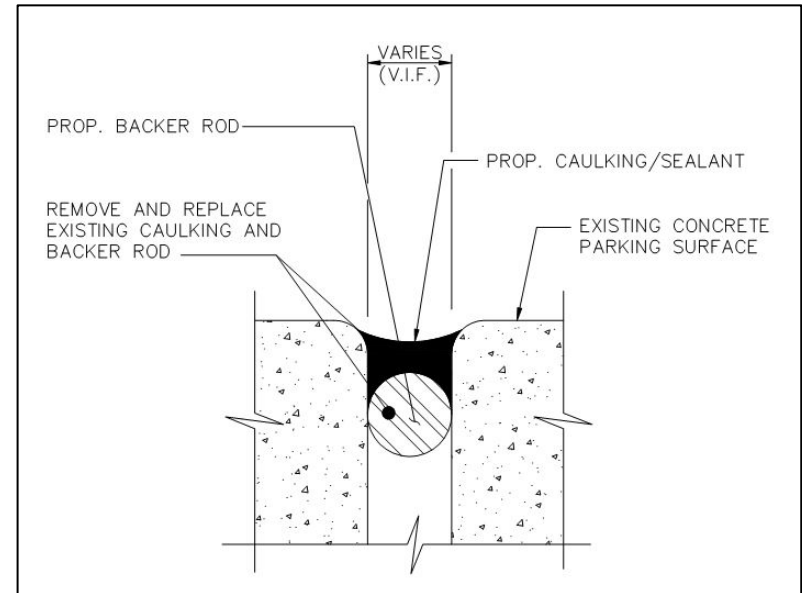
General Repair Procedure

- Sawcut perimeter
- Remove deteriorating concrete
- Clean and augment steel reinforcement
- Install formwork
- Apply concrete
- Allow concrete to set
- Install post-tensioning hardware (plate and rods)
- Apply tension to rods
- Remove temporary shoring

Joint Sealant Replacement



Example of deck sealant



General Repair Procedure

- Remove existing sealant
- Clean and prepare deck edge
- Install foam backer rod
- Install sealant
- Allow sealant to cure

Non-Structural Repairs



General Repairs

- Lighting repairs
- Drainage maintenance and repairs
- Door and hardware replacement
- Stair riser and rail repair

Alewife Legislative Tour

