

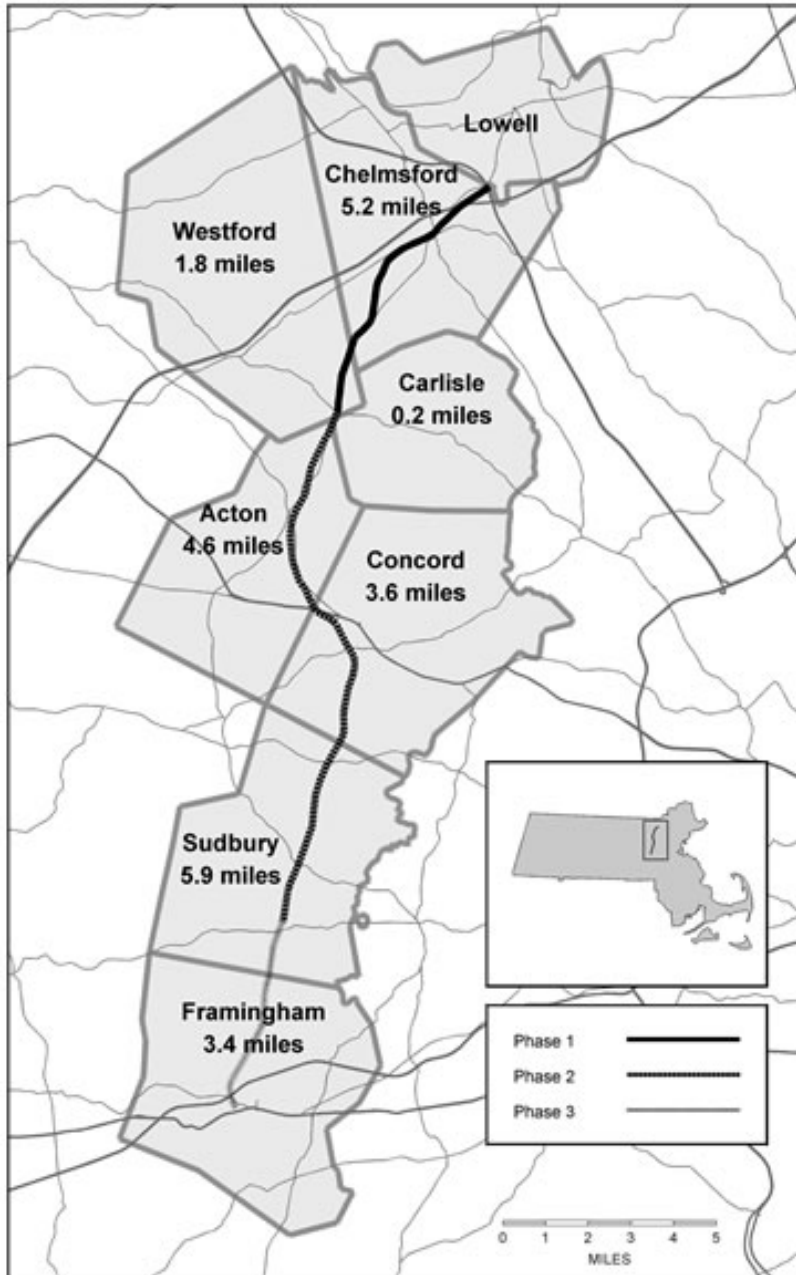


# Bruce Freeman Rail Trail Sudbury, Massachusetts

Presented by  
VHB

November 21, 2016

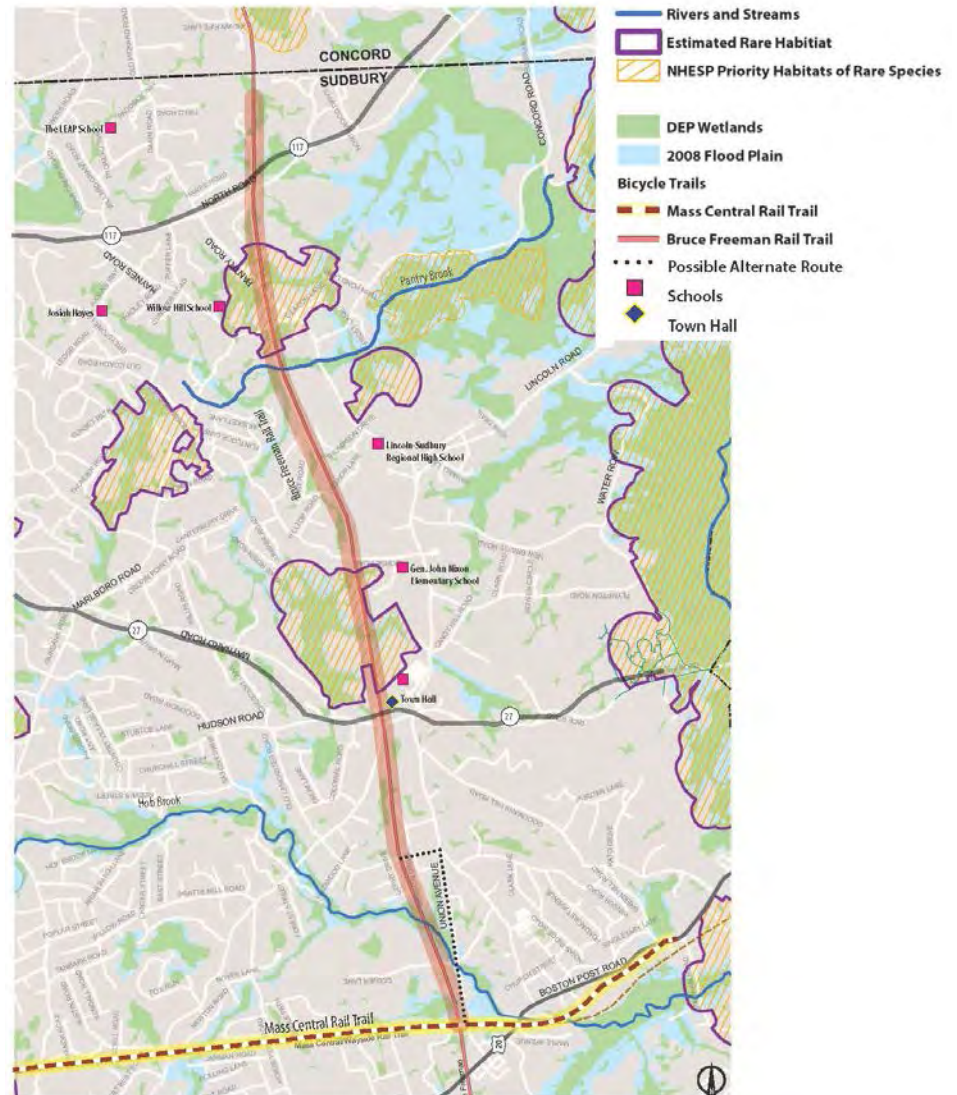
# Bruce Freeman Rail Trail (BFRT)



- BFRT is a 25-mile rail trail between Lowell and Framingham along the former Old Colony Railroad
- The rail corridor is owned by the Commonwealth of Massachusetts (MBTA)
- 6.8 miles constructed in Lowell, Chelmsford & Westford (Phase 1)
- Concord Section (Phase 2C) from Commonwealth Ave to Powder Mill Road is scheduled for construction in Spring 2017

# BFRT in Sudbury

- In Sudbury, the rail trail is a north-south corridor which extends from south Sudbury north approximately 4.4 miles to the Concord Town line (Phase 2D)
- Intersects the MassCentral Rail Trail (east-west corridor) near Route 20
- This project is from the Station Road near the junction with MassCentral north to the Concord Town line



# Pre-Design Process



# Pre-Design Process

- Data Collection
  - Ground Survey
  - Locating wetland boundaries
  - Bridge Inspections



# Pre-Design Process

- Establish Environmental Constraints
  - Filed an Abbreviated Notice of Resource Area Determination (ANRAD) with Sudbury Conservation Commission on July 26, 2016
  - Conservation Commission hearing September 26, 2016
  - Order of Resource Area Delineation (ORAD) issued November 14, 2016



# Pre-Design Process



- Design Development
  - Conceptual Path Alignment
  - Path Alternatives Analysis along Union Avenue
  - Monthly Design Meetings
  - Preliminary Structural Analysis
  - Parking Study
    - Davis Park
    - Route 20 (Location TBD)
  - Roadway Crossings
    - Conduct safety analysis
    - Development of alternatives for each roadway crossing
    - Evaluate signal warrants

# Conceptual Design

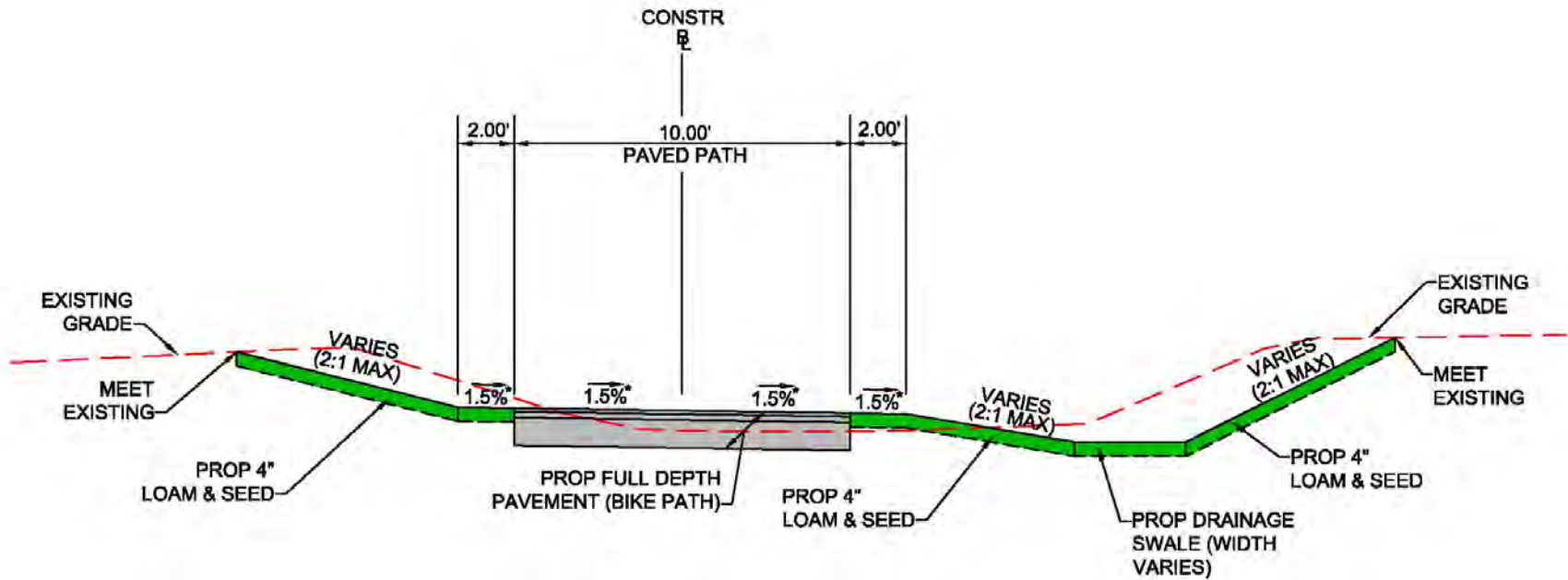




# Project Design Elements

- Consistent with MassDOT & AASHTO design standards
- 14 foot wide path (10 foot paved, with two-foot grassed shoulders)
- Grass drainage swales

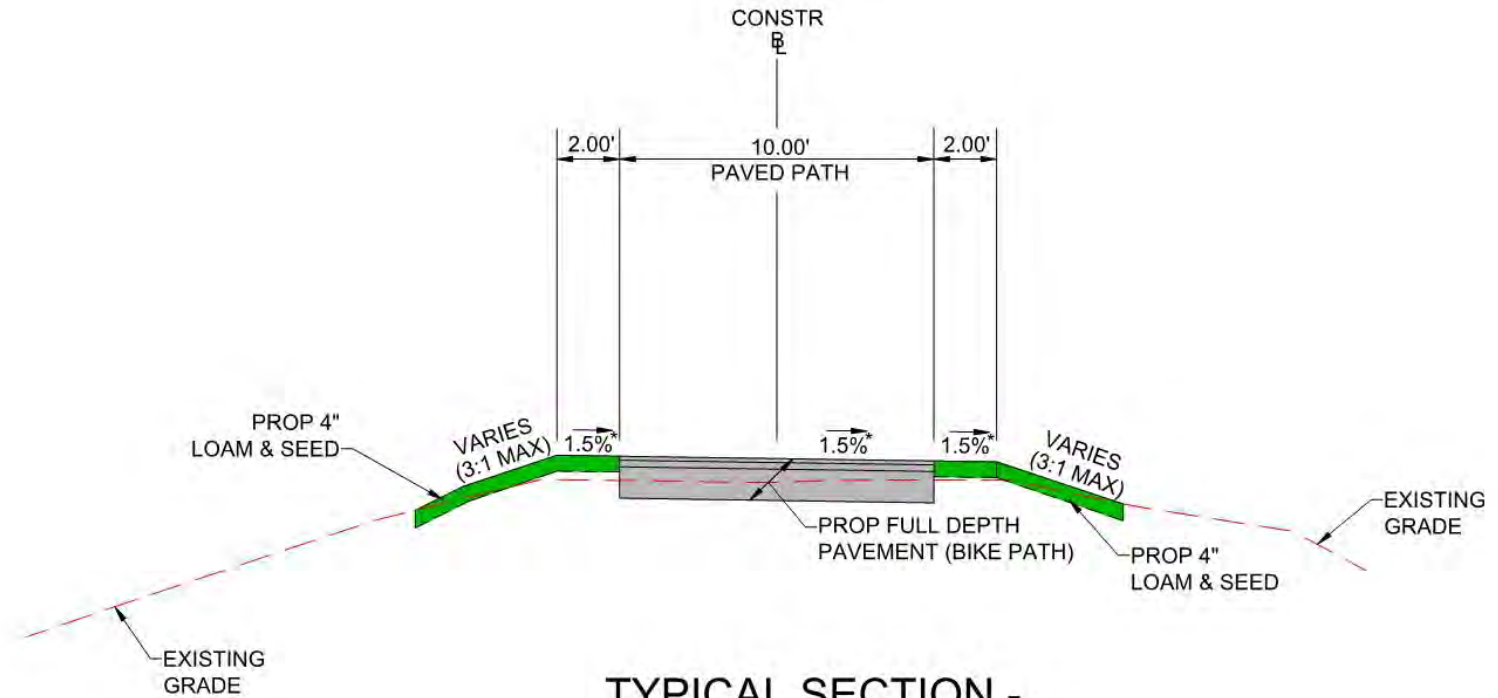
# Project Design Elements



## TYPICAL SECTION WITH DRAINAGE SWALE-

\*TOLERANCE FOR CONSTRUCTION  $\pm 0.5\%$

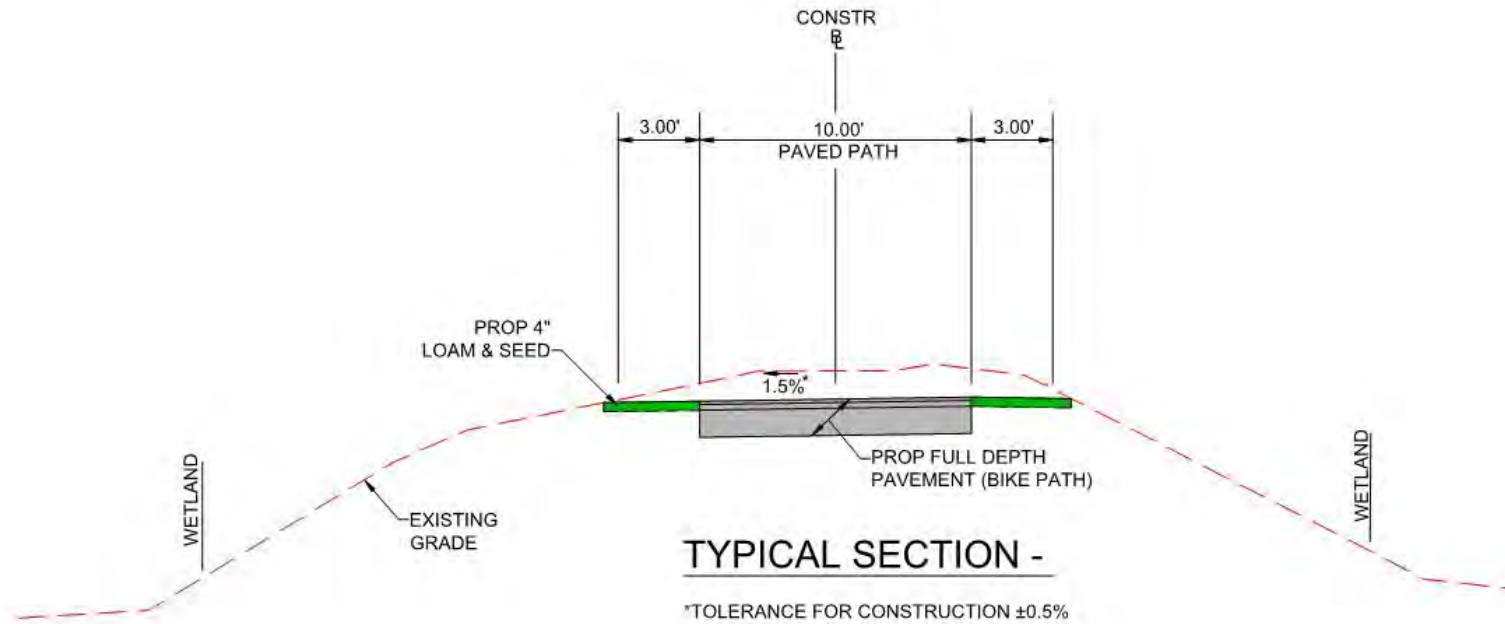
# Project Design Elements



## TYPICAL SECTION -

\*TOLERANCE FOR CONSTRUCTION  $\pm 0.5\%$

# Project Design Elements



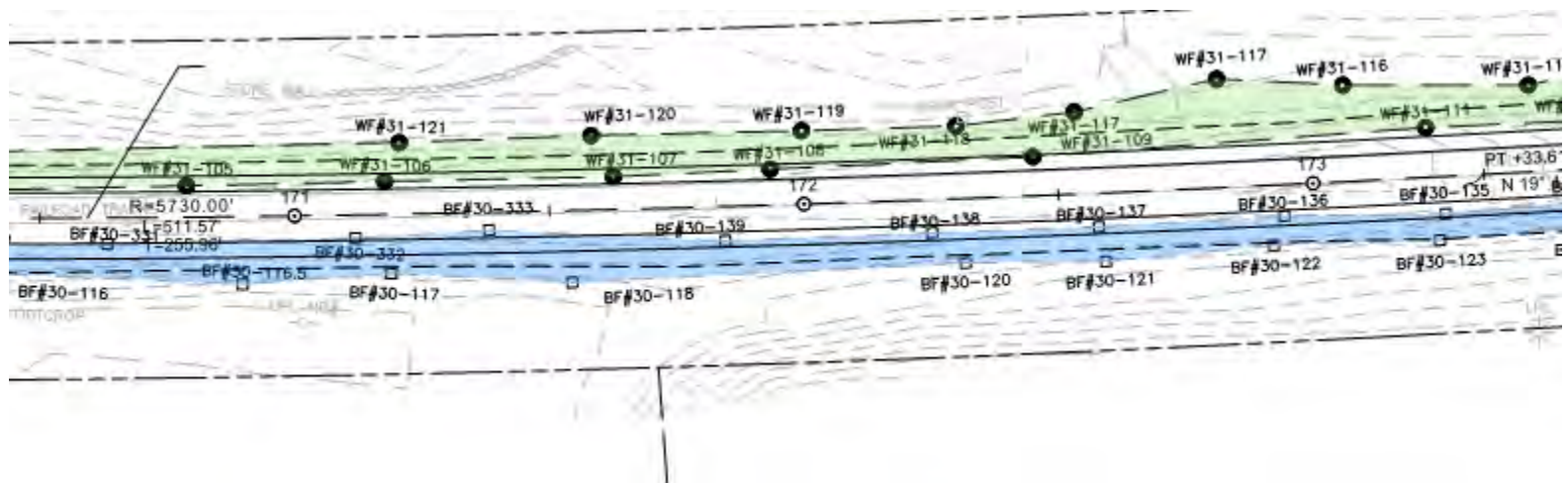
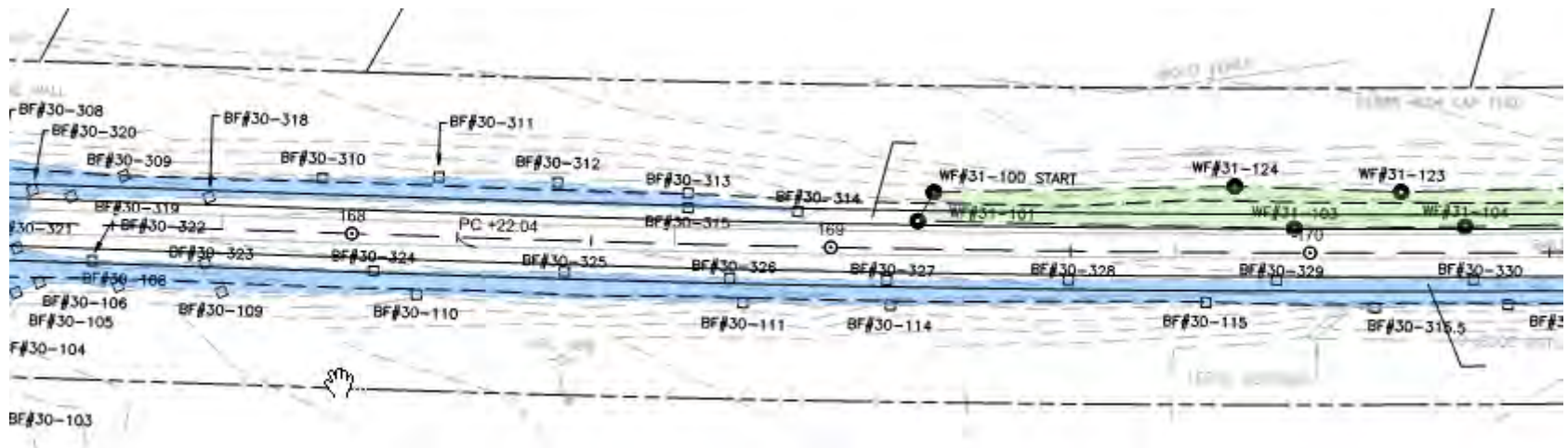
# Sta. 126+25 - Hop Brook Bridge



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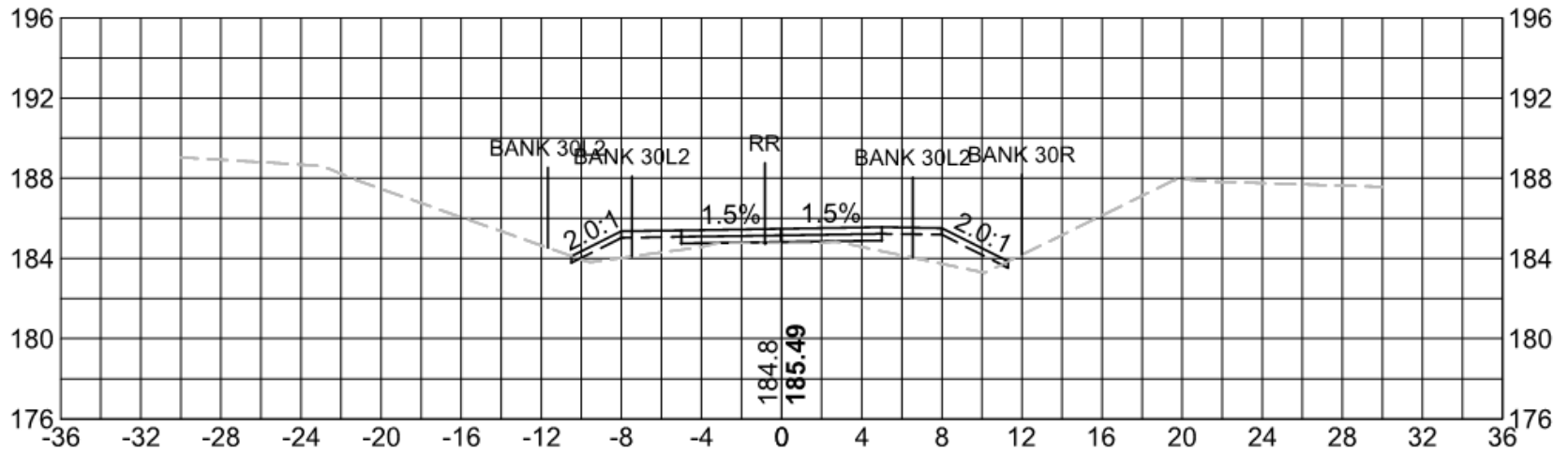


# Sta. 167+50 – Sta. 174+00



# Sta. 167+50 – Sta. 174+00

168+50





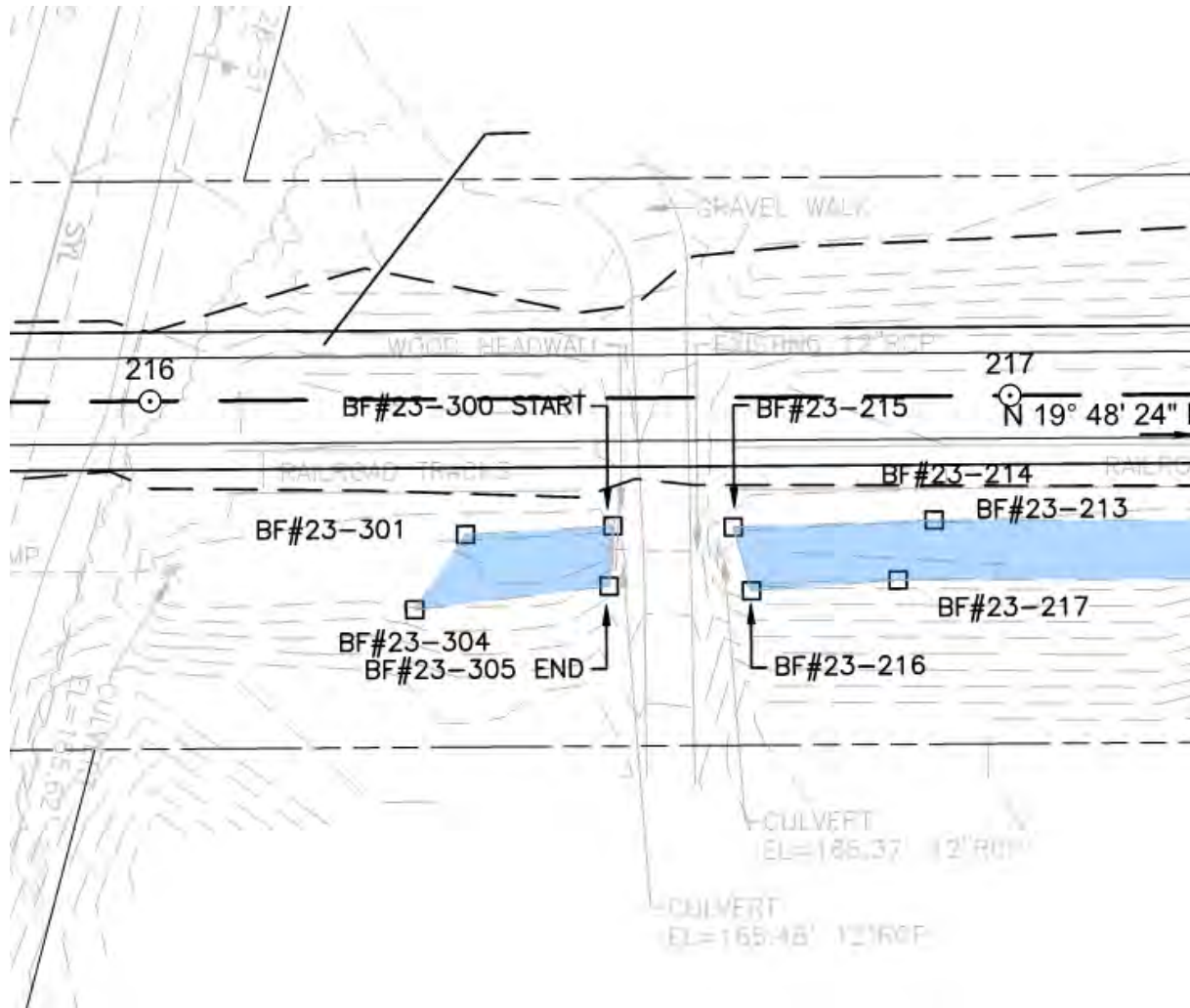
# Sta. 167+25



# Private Crossing - Sta. 216+50



# Private Crossing - Sta. 216+50

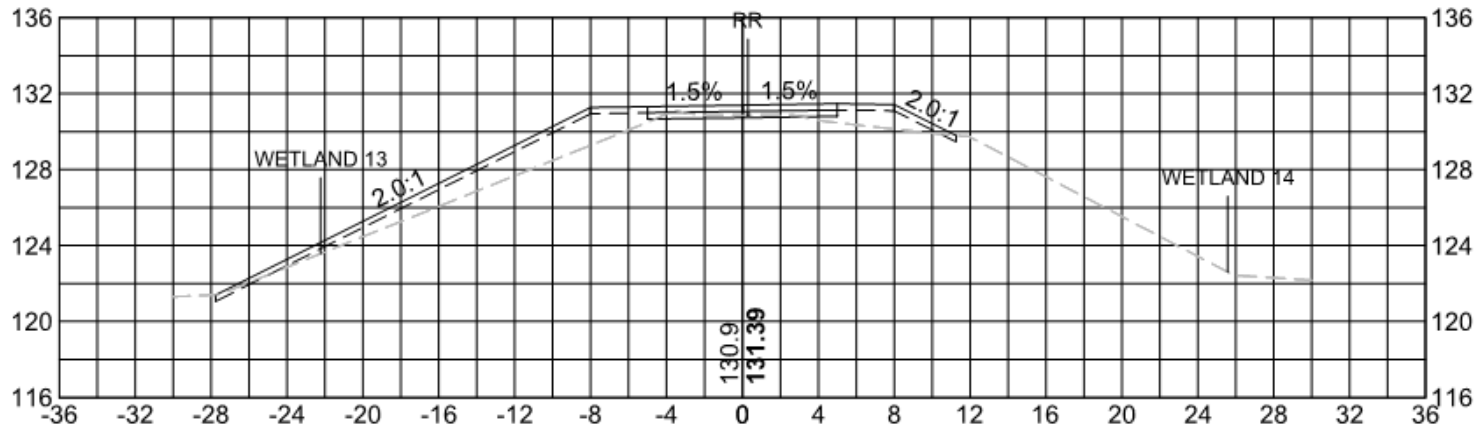


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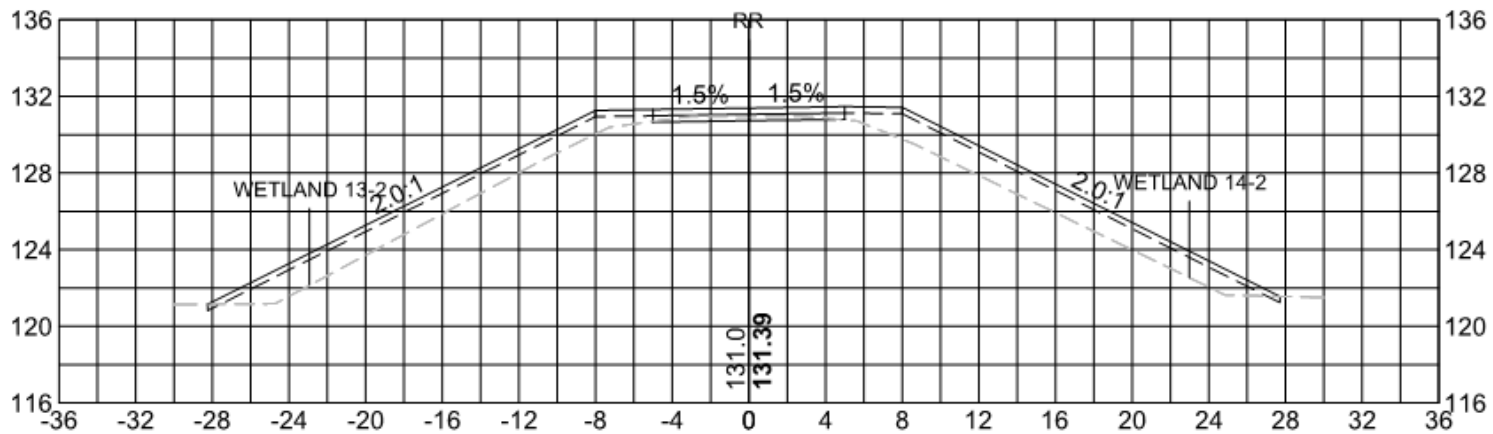


# Sta. 262+50 to Sta. 266+00

264+00



265+00



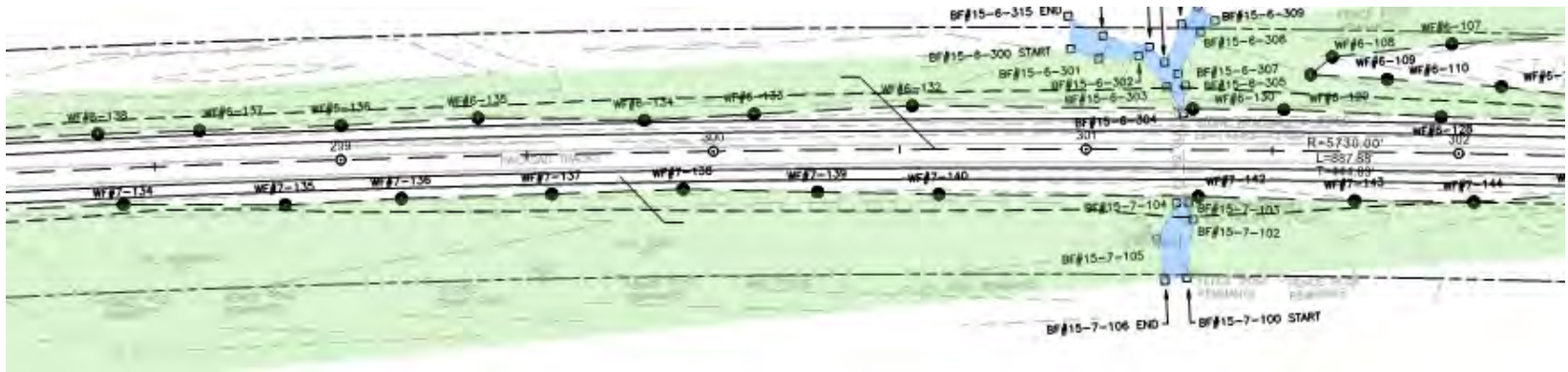
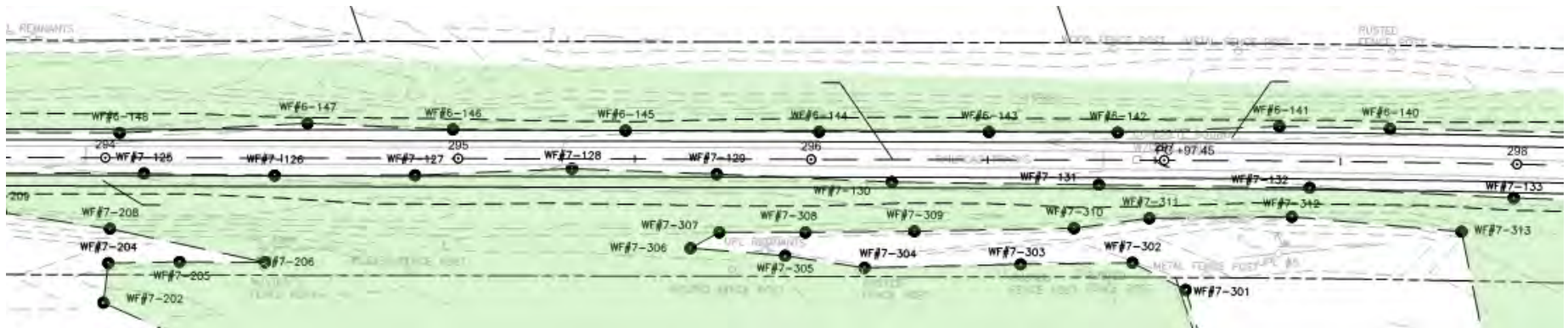
# Pantry Brook – Sta. 264+50



## Pantry Brook – Sta. 264+50



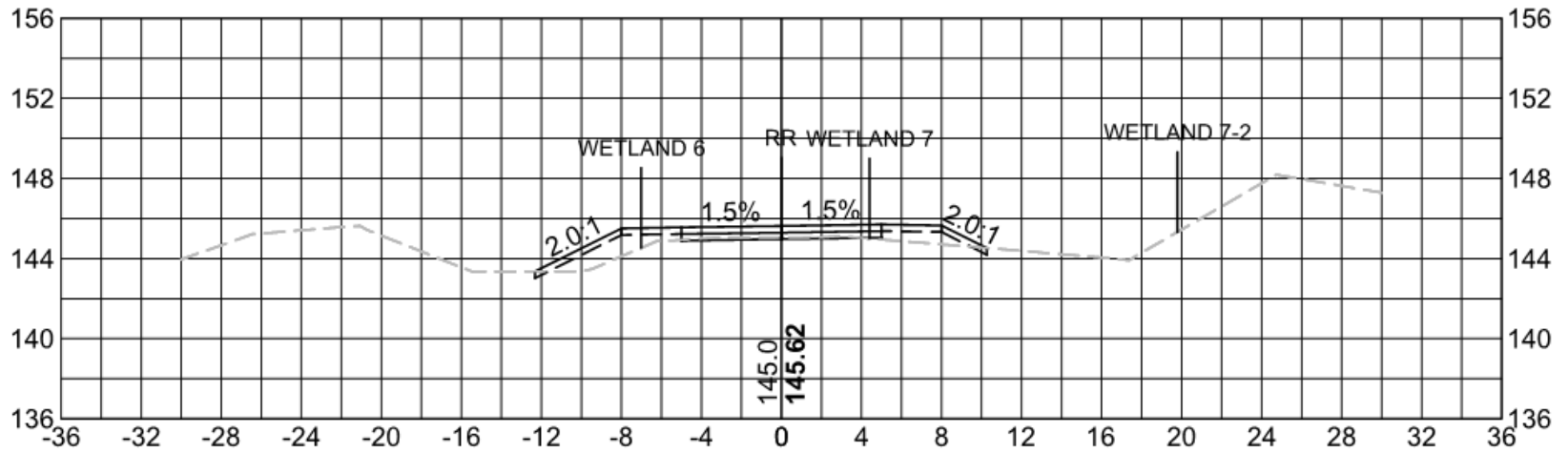
# Sta. 292+00 to Sta. 304+00





# Sta. 292+00 to Sta. 304+00

294+00



# Cattle Crossing – Sta. 199+55



# Cattle Crossing – Sta. 258+50



# Cattle Crossing – Sta. 269+80



# Cattle Crossing – Sta. 321+55

