



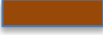





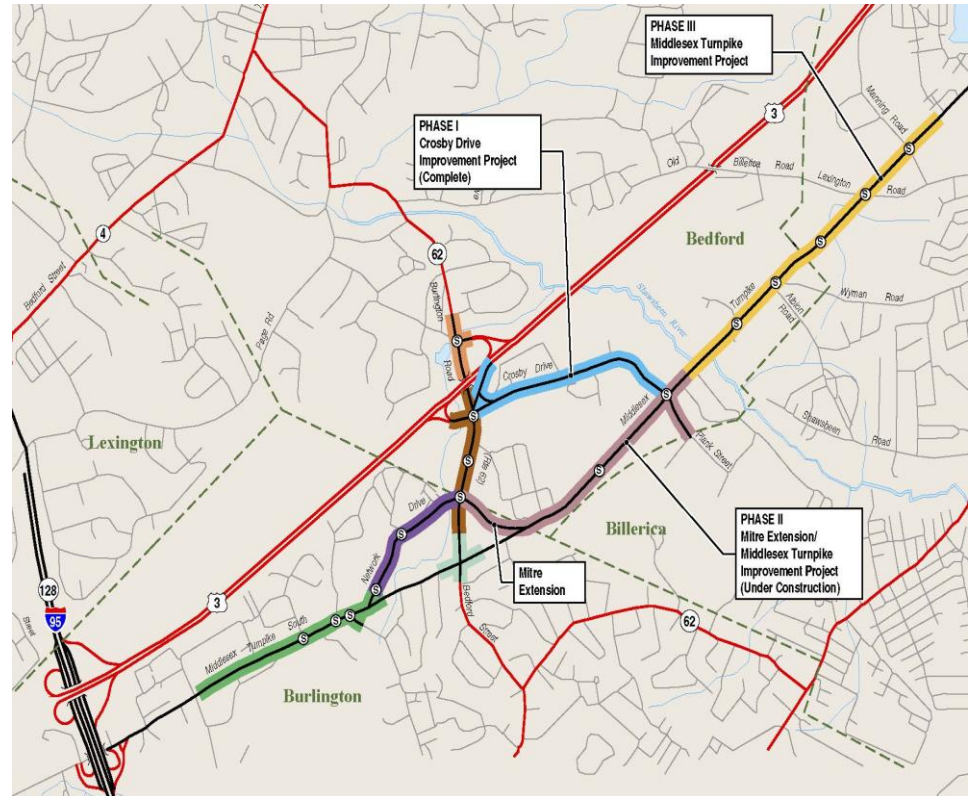
# **Bedford & Billerica Middlesex Turnpike - Phase 3 Transportation Improvements**

Project File No. 029492

Contract No. 97932

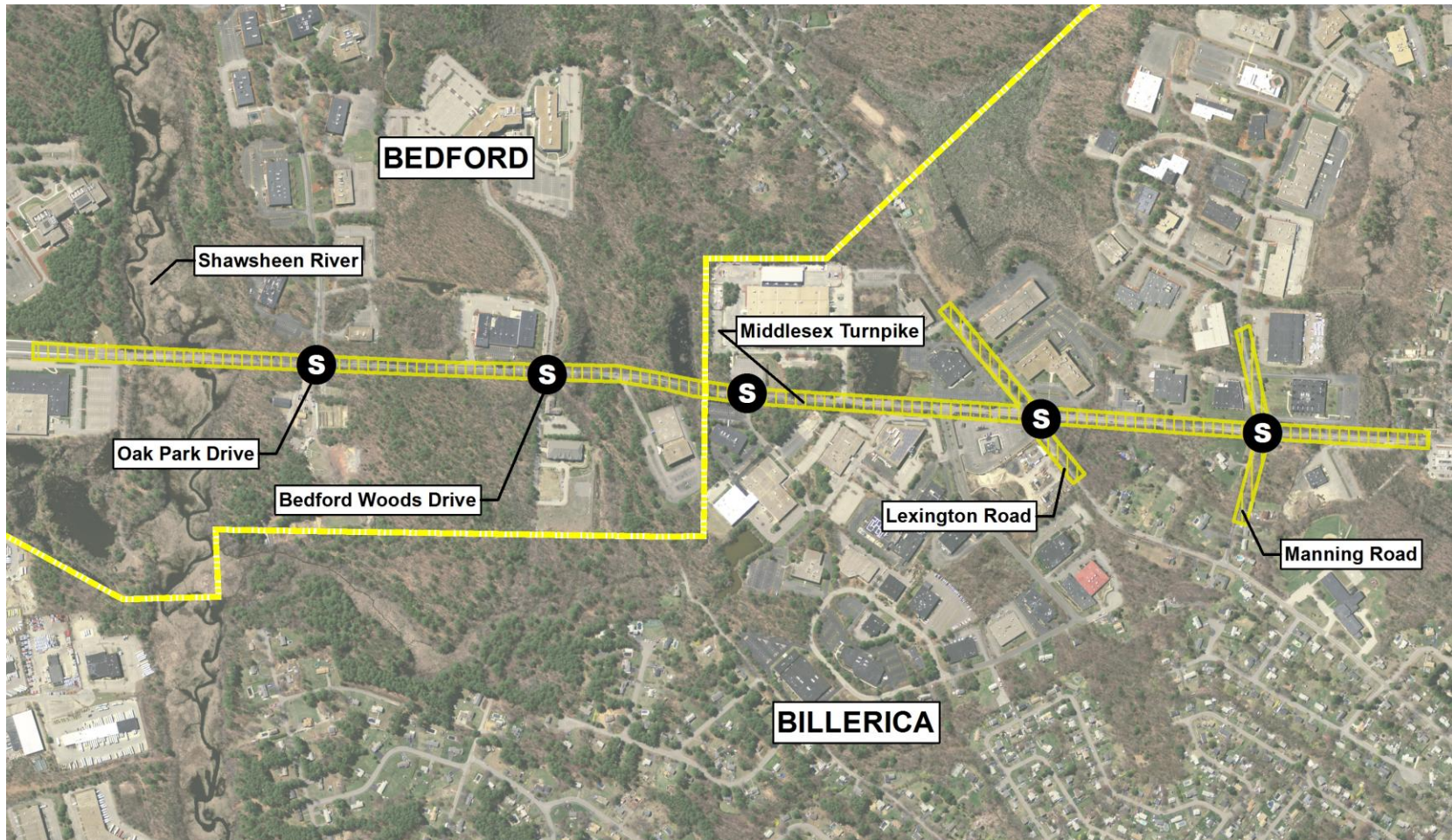
# Project History

- **Phase I—Crosby Drive—029490:**  
Construction Complete 2007  
\$3,809,203.84 
- **Phase II—Middlesex Tpke—029491:**  
Construction Complete 2016  
\$11,683,387 
- **Phase III—Middlesex Tpke—029492:** 
- Network Drive 
- Route 62 
- Route 3 Northbound Slip Ramp 
- Route 3 Southbound Ramps 
- Middlesex Turnpike, Burlington 





# Project Location





# Existing Conditions

## Traffic Congestion

- 16,135 vehicles per day in 2015
- Level of Service E or F at major intersections
- Excessive delay at unsignalized movements
- One-quarter mile queues on mainline during peak periods



# Existing Conditions

## Intersection Safety

- No crosswalks present
- The Lowell Regional Transit Authority service the project area.
- Passengers are currently discharged onto the roadway shoulder with no refuge area.





# Existing Conditions

## No Bicycle or Pedestrian Accommodation

- Lack of Sidewalks
- Lack of shoulder striping
- Lack of access to businesses and restaurants for pedestrians



# Existing Conditions

## Shawsheen River Culverts

- Structurally Deficient
- Overtop During Flood Events



# Project Purpose

- Traffic Congestion
  - Relieve congestion by adding capacity and coordinating signals
- Intersection Safety
  - Improve intersection safety by adding signals, cross walks and curb ramps.
- Bicycle and Pedestrian Accommodation
  - Improve safety and increase usage by bicyclists and pedestrians by providing 5-foot bike lanes and accessible 5.5-foot sidewalks on both sides of the roadway



# Project Purpose

- Shawsheen River Culverts
  - Mitigate flood impacts by raising the roadway profile at the river and providing new precast concrete culverts.
- Roadside Safety
  - Improve safety by installing guardrail where required.
- Drainage Deficiencies
  - Eliminate ponding of water in the roadway by installing a new drainage system that complies with Stormwater Management Standards

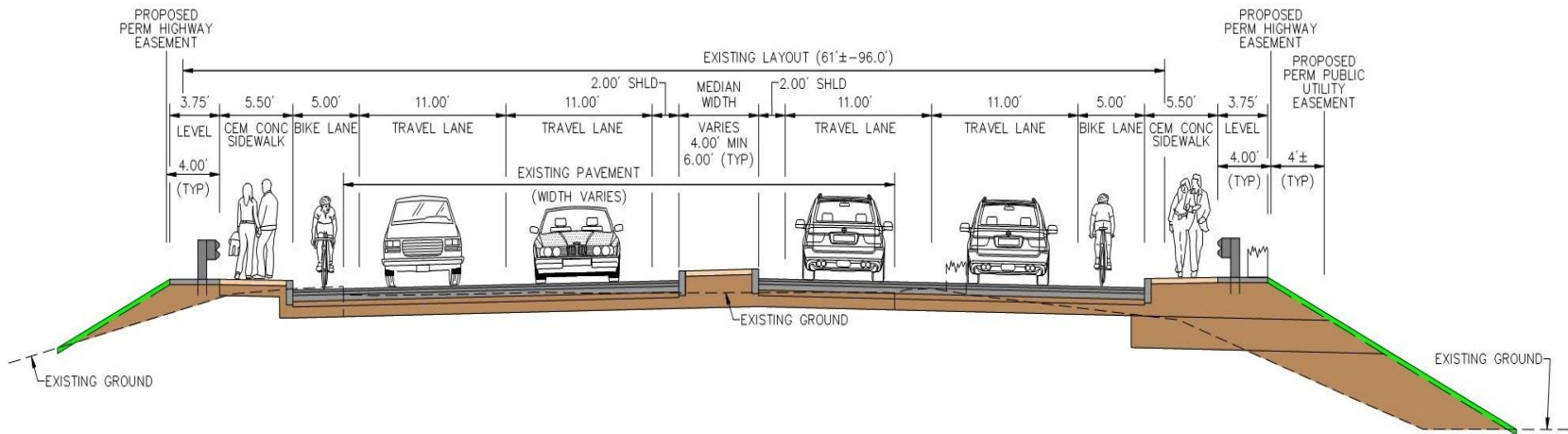
# Project Scope

- Approximately 1.6 miles of roadway reconstruction
- The existing 2-lane roadway will be expanded to 4-lanes with turning lanes to add capacity
- Signalized Intersections at Oak Park Drive, Bedford Woods, 900 Middlesex Turnpike, Lexington Road and Manning Road
- Replacement of the Shawsheen River Culverts



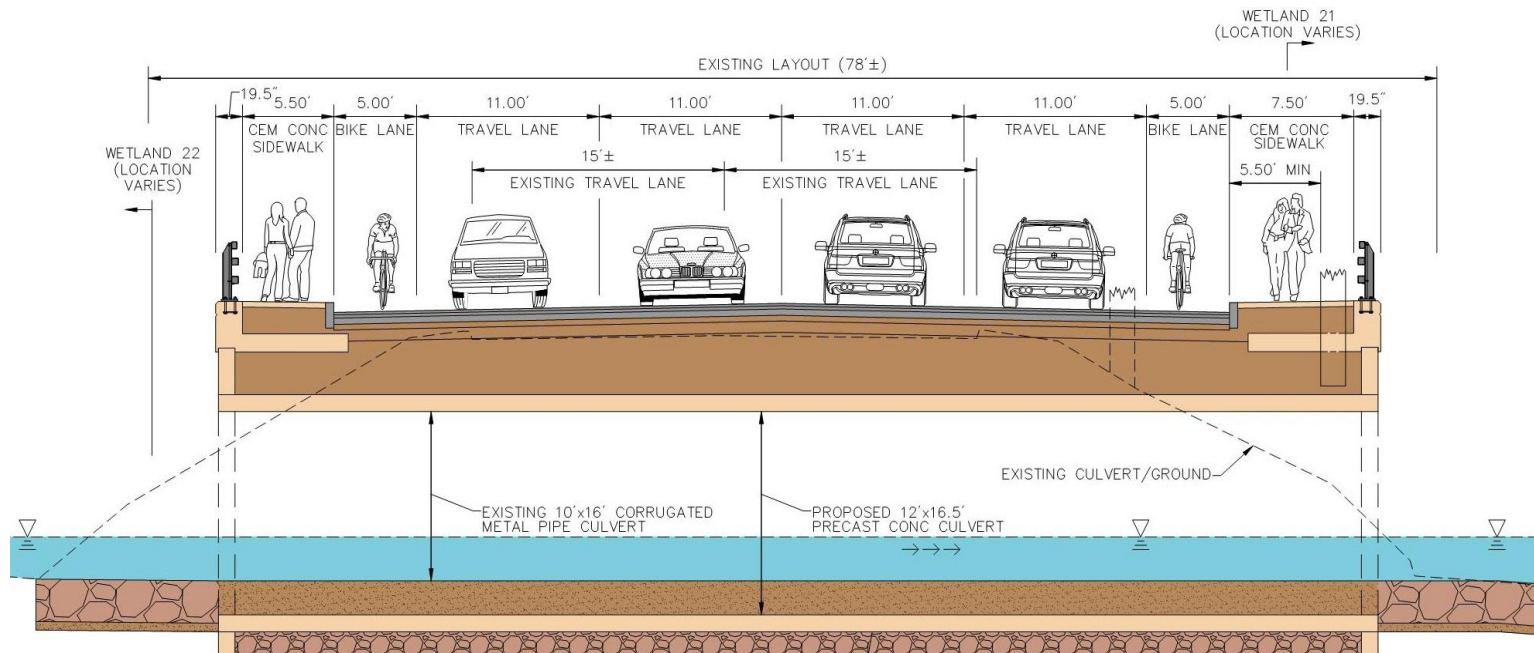
# Proposed Improvements

## Middlesex Turnpike Typical Section



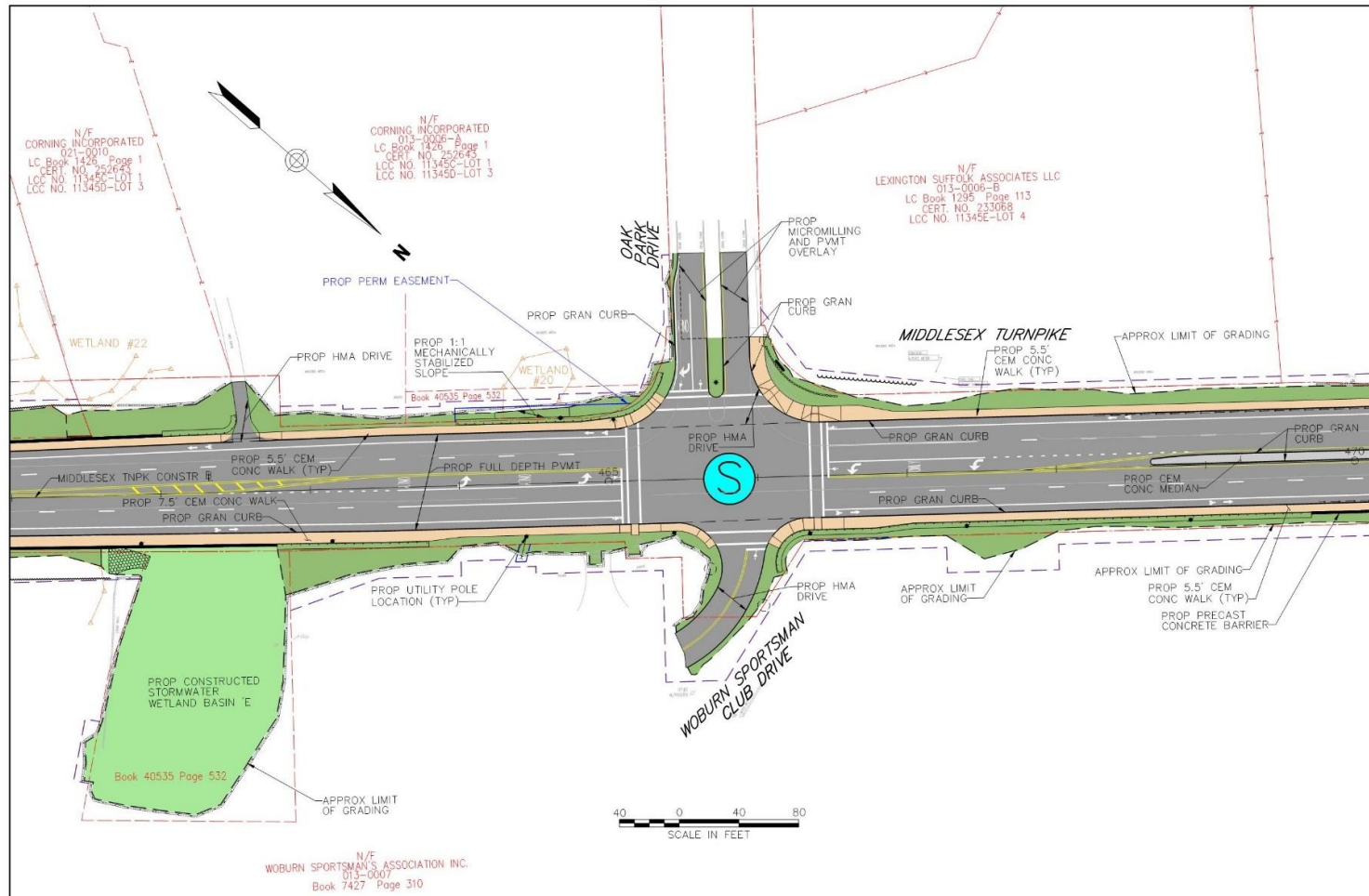
# Proposed Improvements

## Middlesex Turnpike Shawsheen River Culvert Section

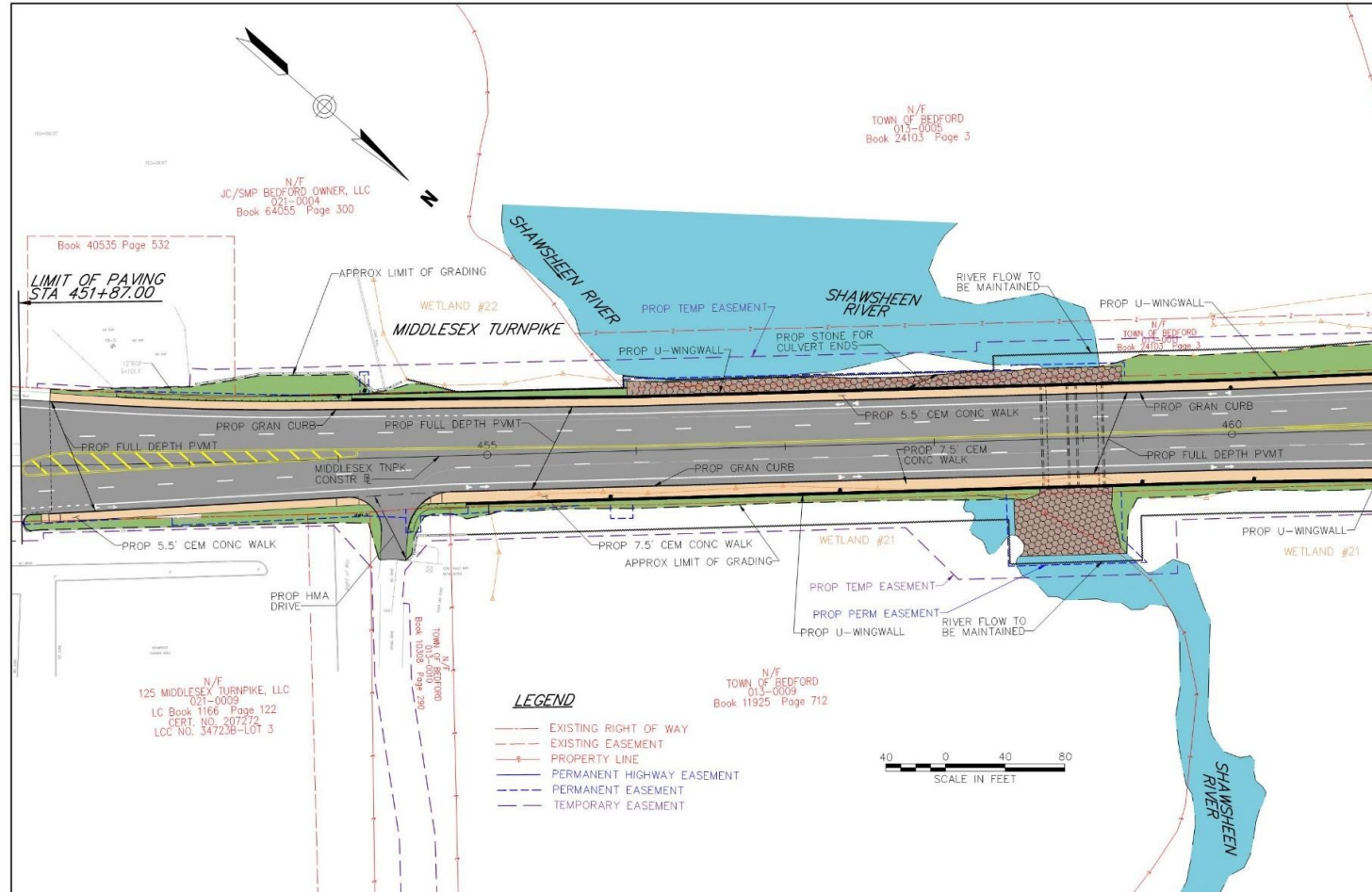




# Proposed Improvements Signal at Oak Park Drive



# Proposed Improvements Signal at Bedford Woods Drive





# Project Team

## **Municipality**

Towns of Bedford & Billerica

Responsible for funding and administering the consultant design contract.

## **Consultant Engineering Firm**

Designer of Record - VHB

## **MassDOT Highway Division**

Responsible for administering the Design Process and providing Resident Engineer Services during Construction

## **Federal Highway Administration**

Responsible for Oversight



# Project Costs

Office Estimate: \$31,233,881.50

Low Bid: \$34,475,000.00

Low Bidder: Barletta Heavy Division Inc.  
10.38% Above Estimate

## Other Bids:

- E T & L Corp. \$37,630,027.00
- Newport Construction Corp. \$39,967,000.00
- Baltazar Contractors Inc. \$40,058,978.40

# Contractor Performance

- At the time of the bid opening Barletta Heavy Division Inc. was prequalified in Highway Construction in the amount of \$250,000,000.
- A review of the Contractor Evaluation scores for Barletta Heavy Division Inc. on file with the Highway Division reflects an average score of 92.5.



# Project Costs

- This project was included in the SFY 2017 to SFY 2021 Capital Investment Plan in the amount of \$38,432,742
- Estimated Total Construction Cost:

|                     |                         |
|---------------------|-------------------------|
| Bid Amount          | \$ 34,475,000.00        |
| Contingencies       | \$ 3,407,867.36         |
| Traffic Police      | \$ 1,000,000.00         |
| Utility Relocations | <u>\$ 2,357,291.15</u>  |
| <b>Total</b>        | <b>\$ 41,240,158.51</b> |
- The Bid Amount includes items of work that are to be funded by the municipality and therefore are not included in the CIP.
- Utility Relocation Costs are identified in a separate Program in the CIP (Retainage and Utility Payments).
- The Construction Duration is 2,000 Calendar Days from Notice to Proceed (5.5 Years).

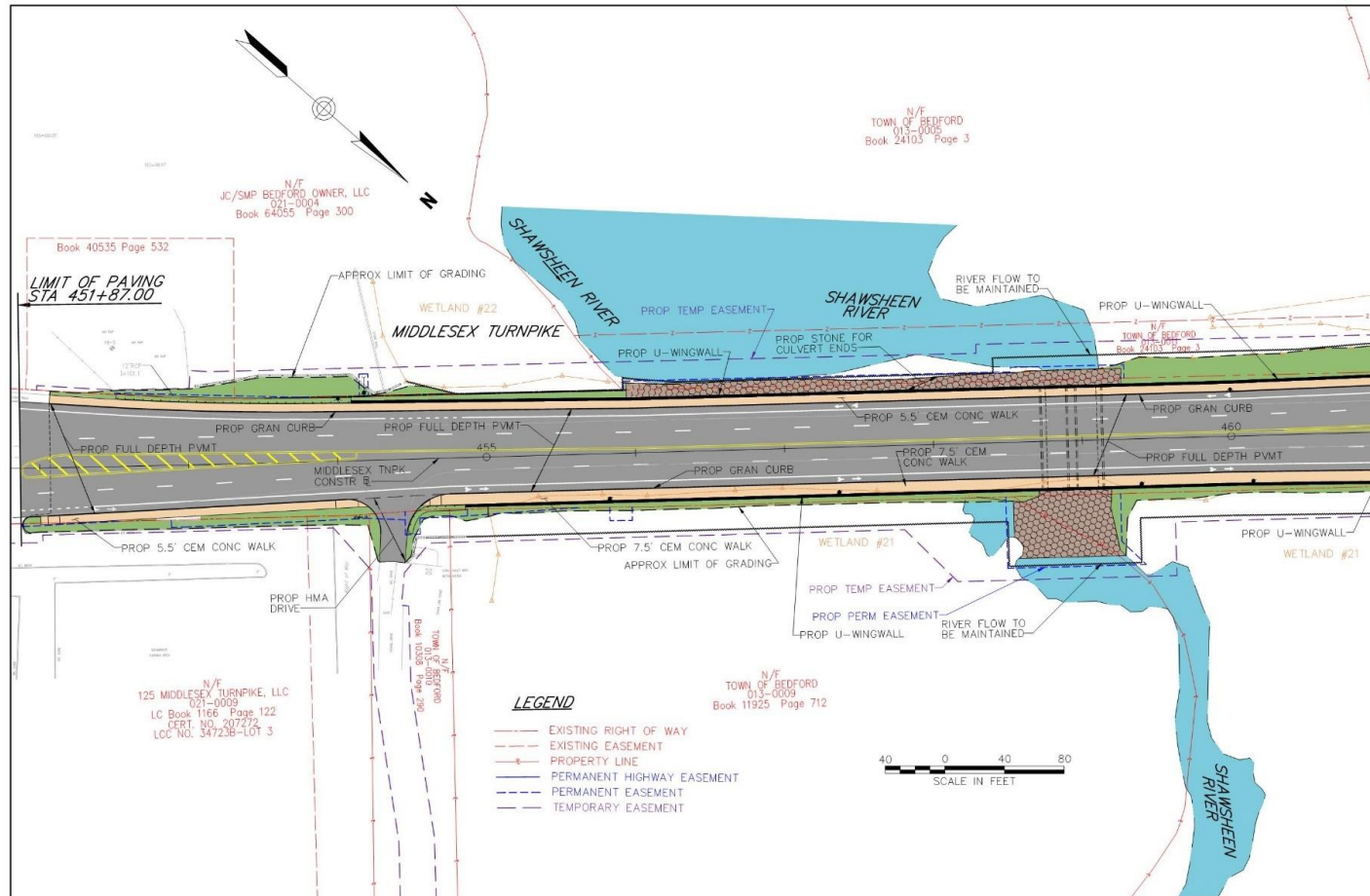
# DISADVANTAGE BUSINESS ENTERPRISE GOAL IS 11%

- Eastwind Corporation will furnish and install retaining walls in the amount of \$1,480,000.00.
- J.M. Fiske Environmental will prepare the Health and Safety Plan and provide environmental services in the amount of \$529,534.80.
- K. DaPonte Construction Corp. will install curbing, walkways and masonry in the amount of \$804,856.50.
- Medereiros Hydroseeding and Landscaping Construction, Inc. will provide landscaping services, in the amount of \$351,716.20.
- Saugus Construction Corporation will furnish and install bridge rail in the amount of \$676,800.00
- The aggregate value of this work is \$3,842,907.50 which represents 11.15% of the bid amount of \$34,475,000.00.

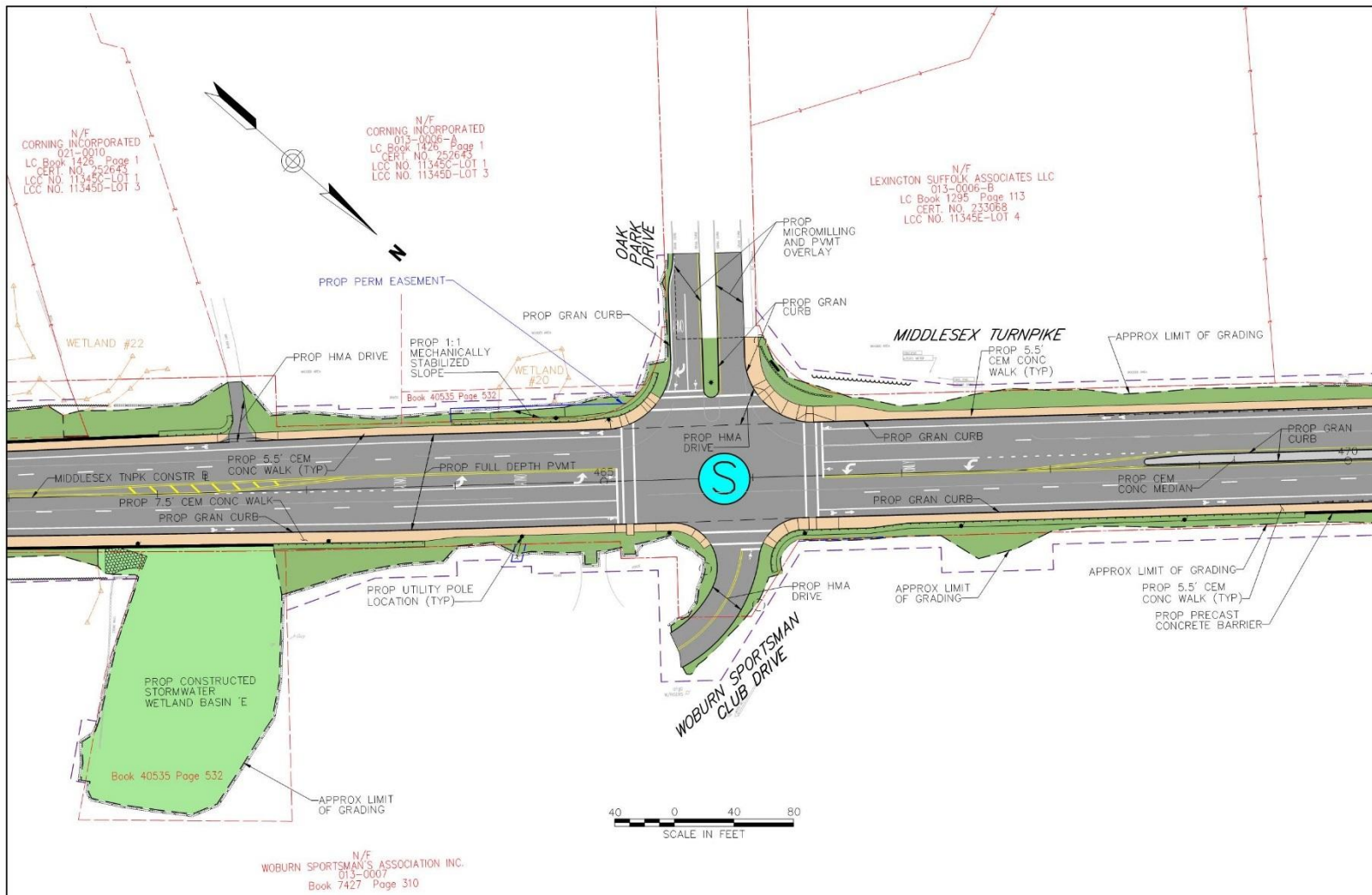
# Appendix



# Shawsheen River Culvert Crossing



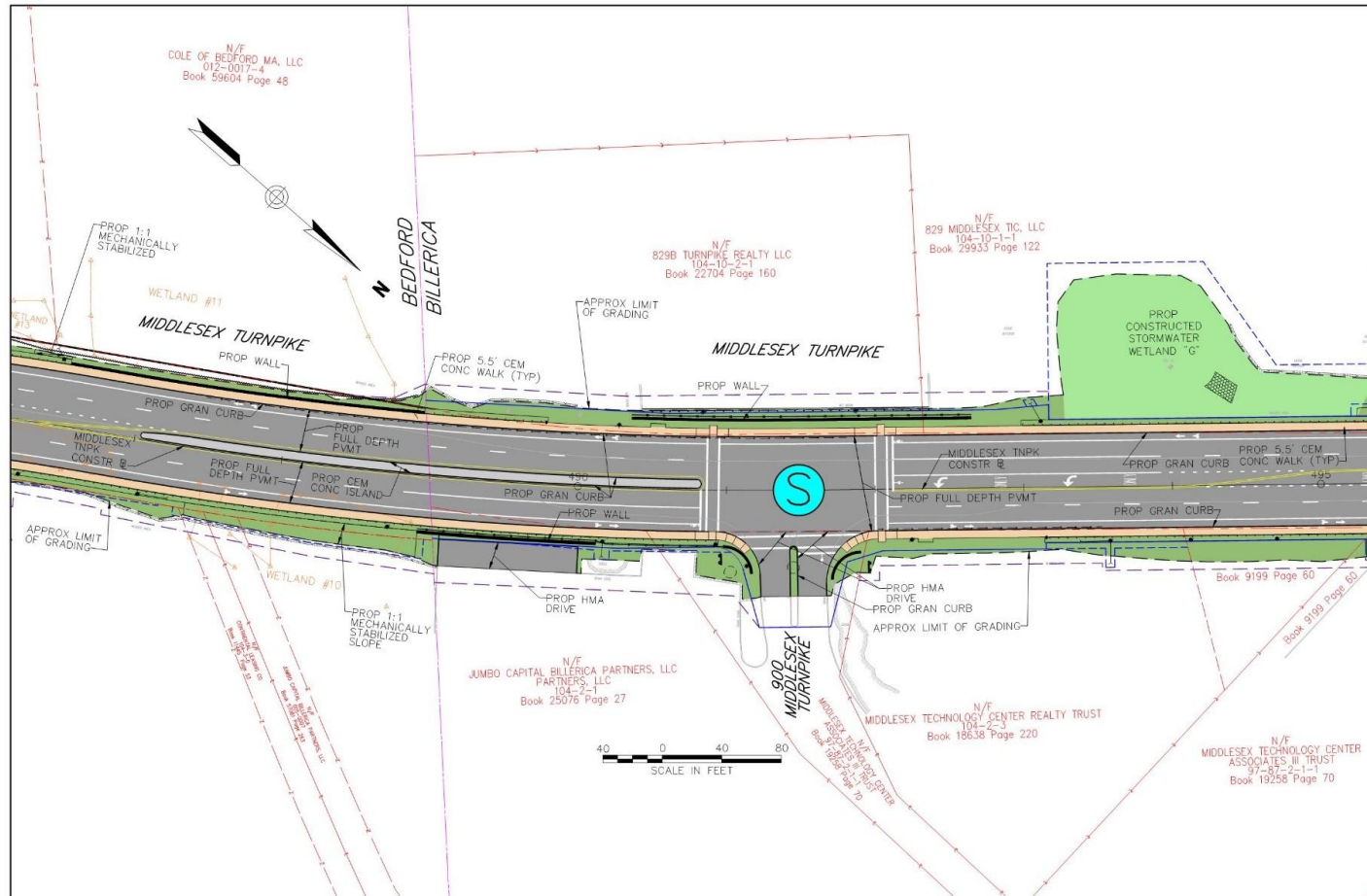
# Signal at Oak Park Drive



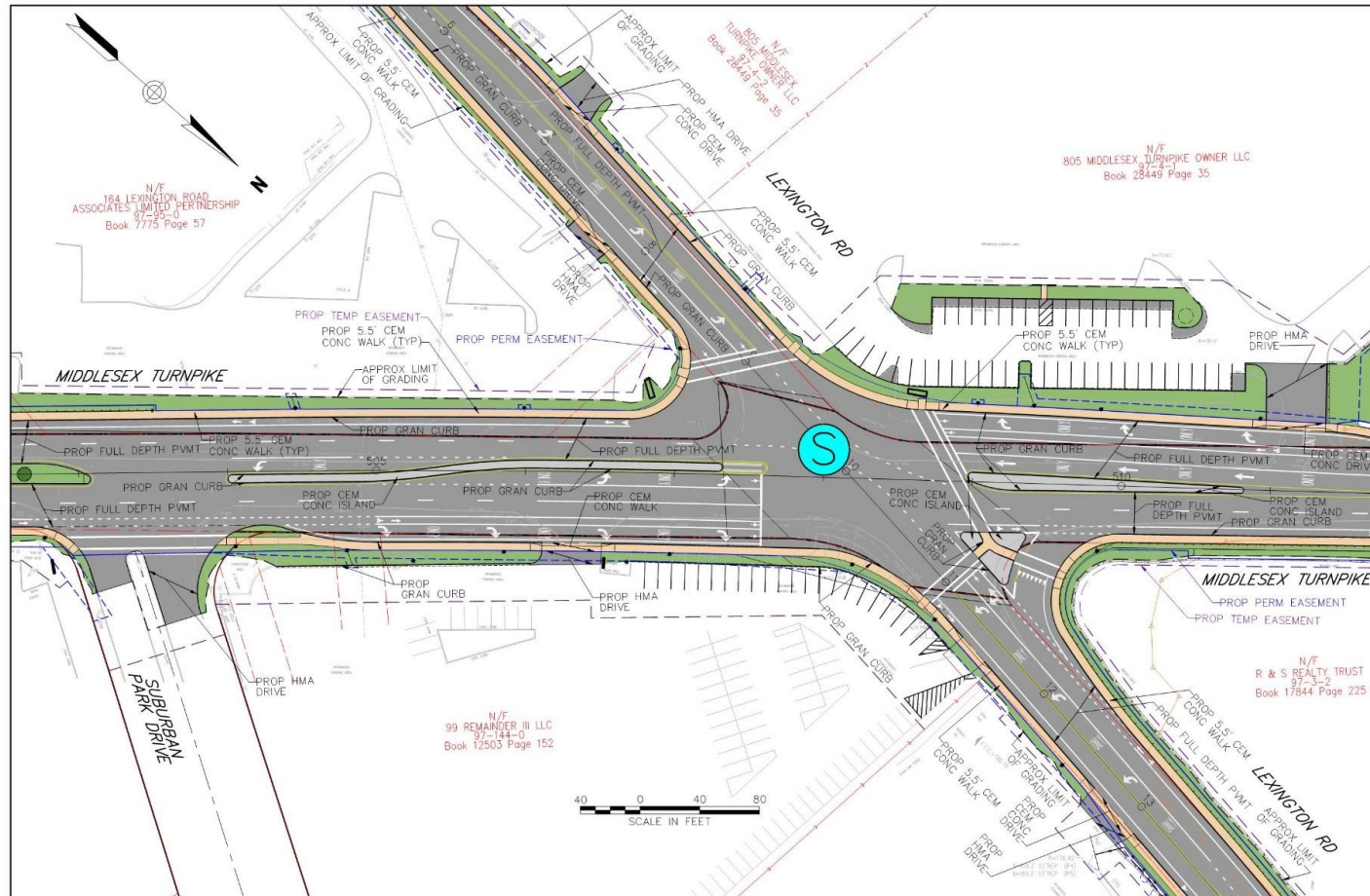




# Signal at 900 Middlesex Turnpike



# Signal at Lexington Road



# Signal at Manning Road

