

ANDOVER 40392

US Route 4 over Blackwater River (Br. No. 143/077) Public Informational Meeting

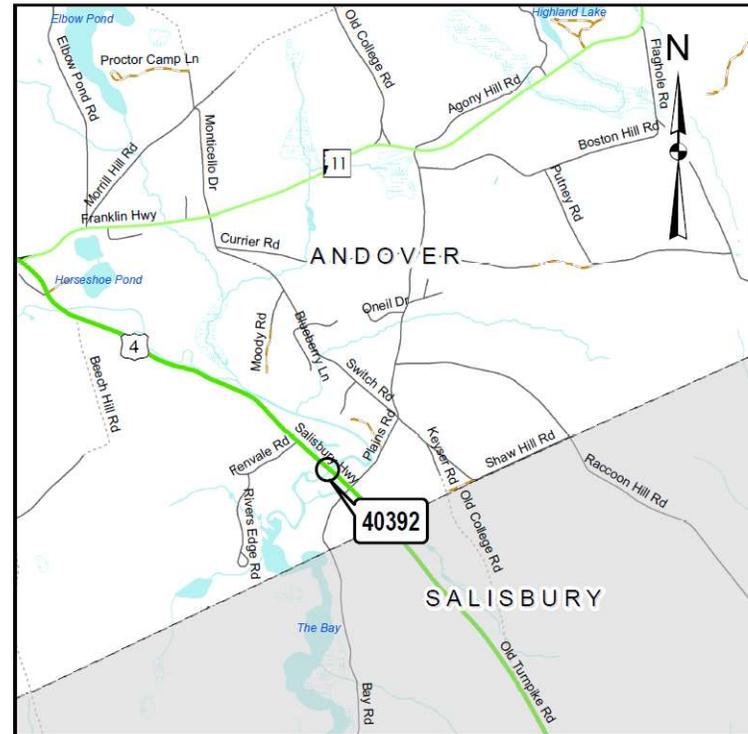


August 28, 2019



Project Location Map

Andover 40392 - US Route 4



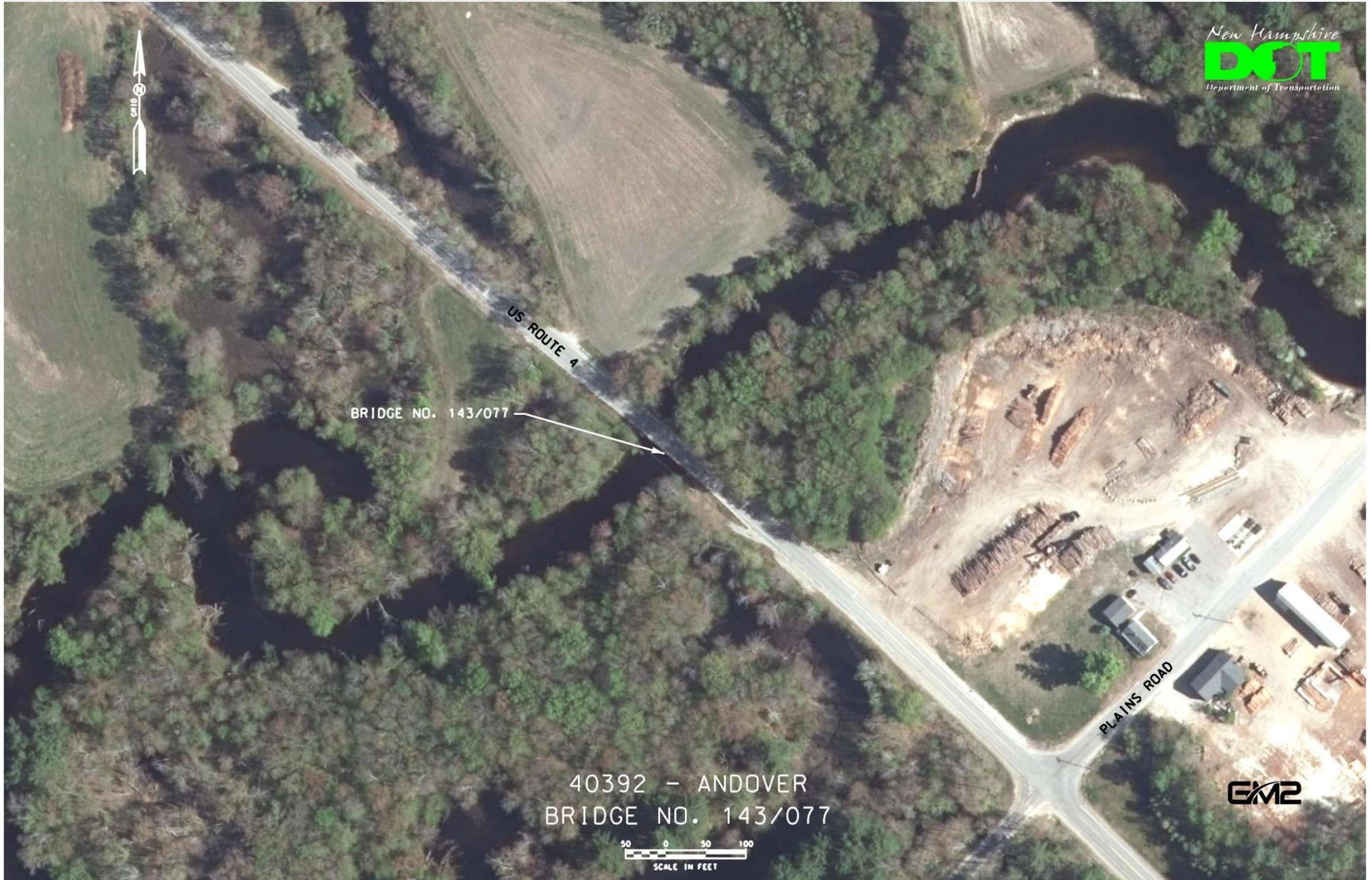
LEGEND	
	Streams
	Water Bodies
	US Routes
	State Routes
	Interstates
	Local Roads
	Town Boundary



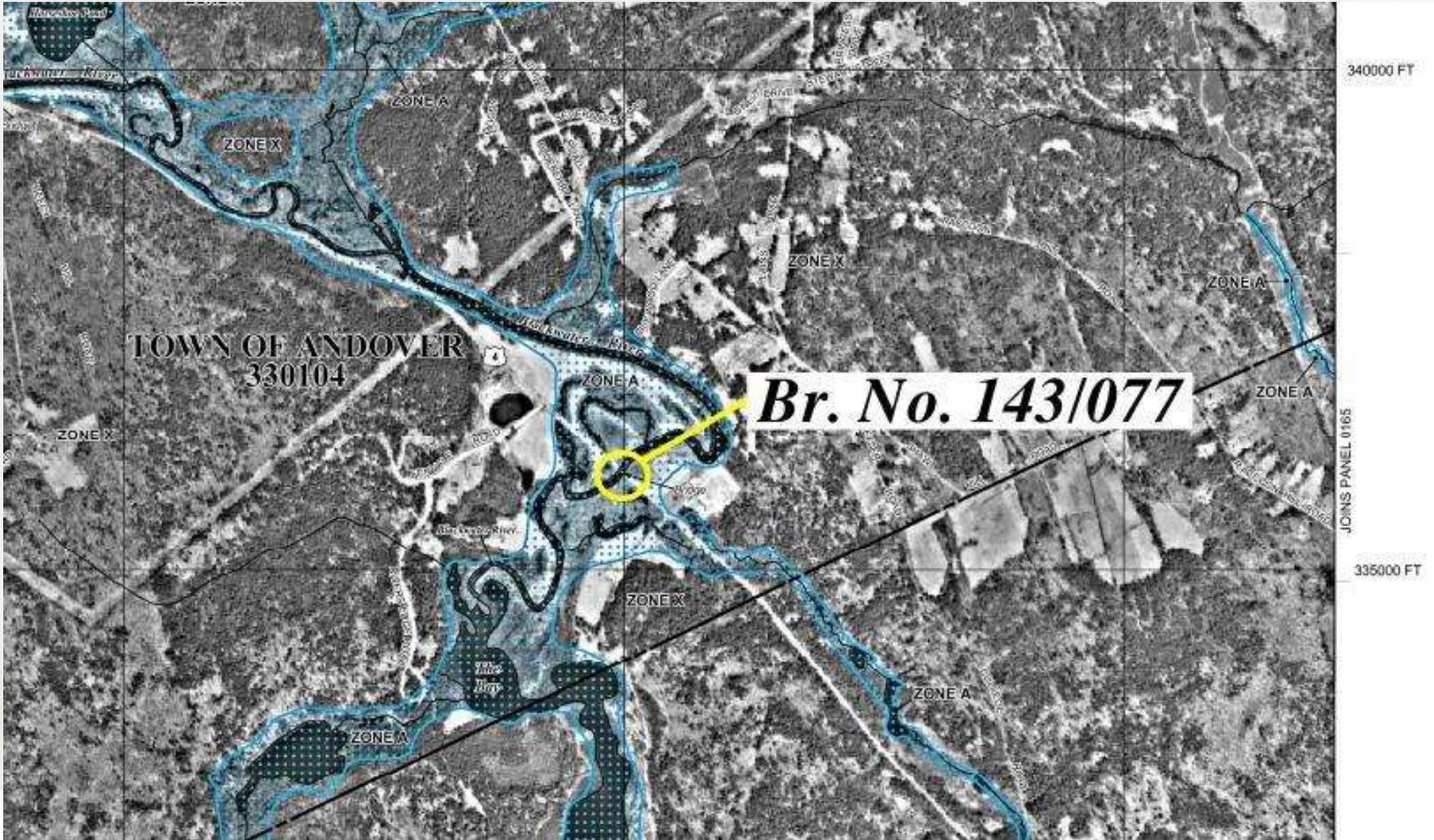
State # 40392
Federal # X-A004 (384)
LOCATION MAP



Project Location Aerial Photo



Floodplain Map



Existing Bridge Information

US Route 4 over Blackwater River - Br. No. 143/077

- Built in 1933
- Steel Through Plate Girders, Steel Floor Beams and a Reinforced Concrete Deck
- Reinforced Concrete Abutments on Spread Footings and Timber Piles
- Span Length: 70'-0"
- Bridge Skew: 0°
- Travel Width: 24'-0"
- Red List, 2014

Site Photos



Looking Easterly over Bridge



Looking East along East Approach



Looking West along West Approach



Looking Westerly over Bridge



Looking Westerly at Bridge



Looking Westerly from Bridge

Existing Bridge Photos



Looking Downstream from Bridge



Expansion Rocker Bearing



Expansion Abutment



Looking Upstream from Bridge



Holes in Plate Girder



Section Loss in Bottom Flange

Existing Bridge Photos



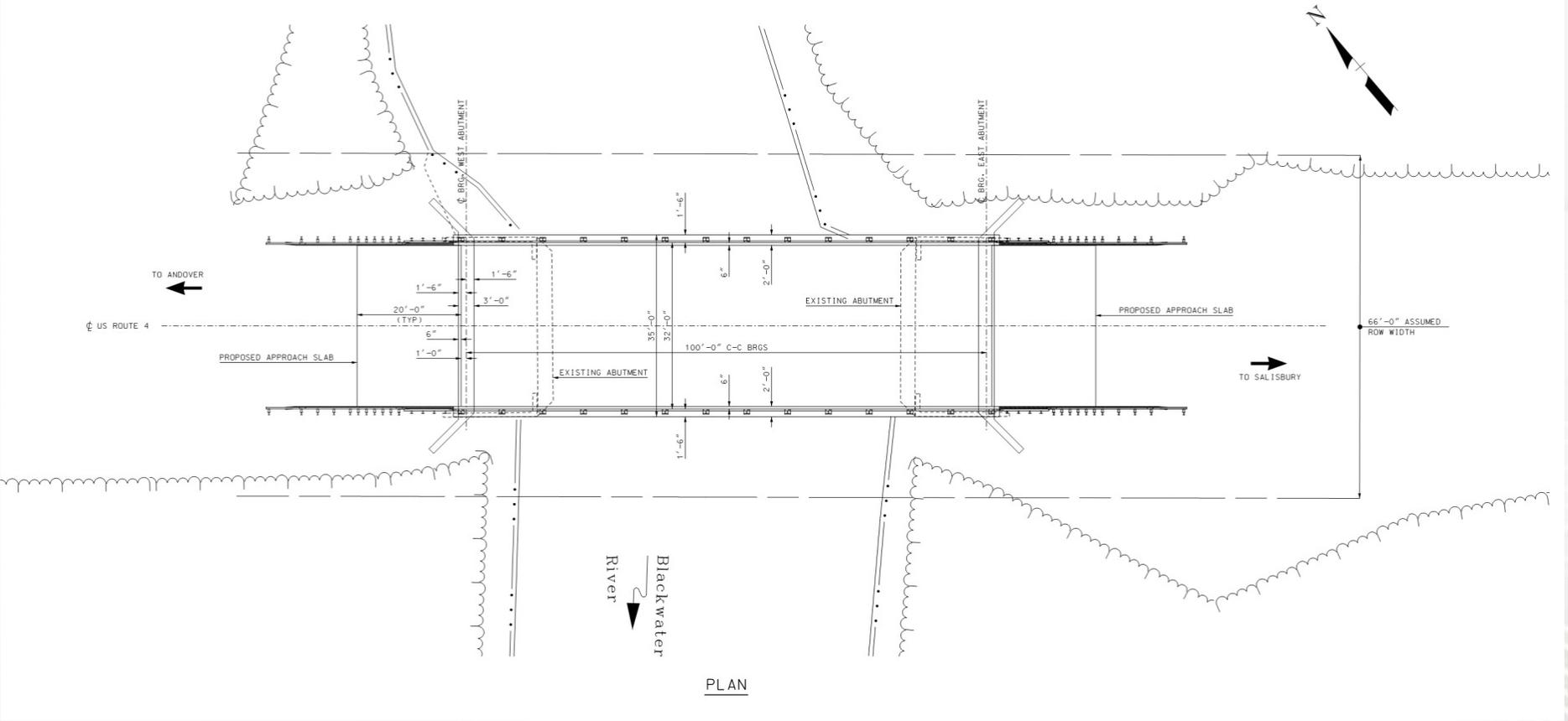
Emergency Repairs Fall 2014



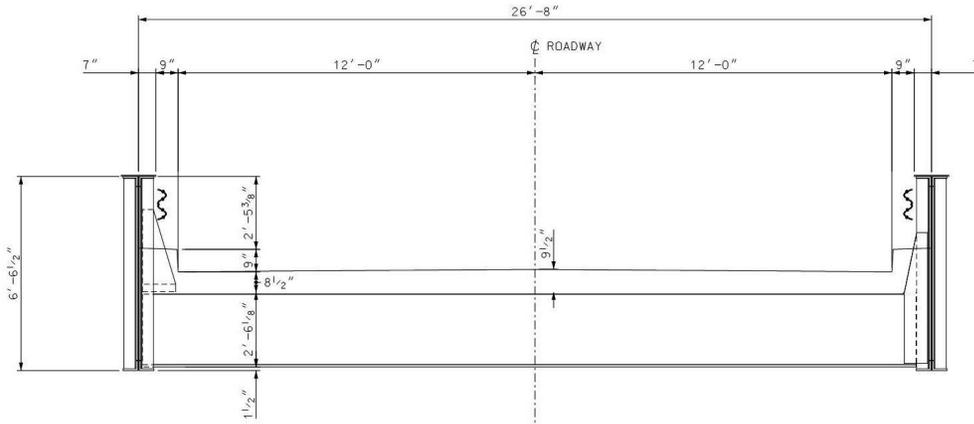
Bridge Replacement

- Proposed bridge at same location
- Span length = 100'-0" to accommodate Stream Crossing Rules
- Proposed steel girders with composite concrete deck
- Bridge travel width increased to 32'-0"
 - 11-foot lanes and 5-foot shoulders
 - 5-foot shoulders to accommodate bike traffic
 - 3-bar steel rail
- Integral Abutments on Steel Piles
 - Construct behind existing abutments
 - Part of existing abutments to remain in place
 - Use as cofferdam during construction
 - Scour protection

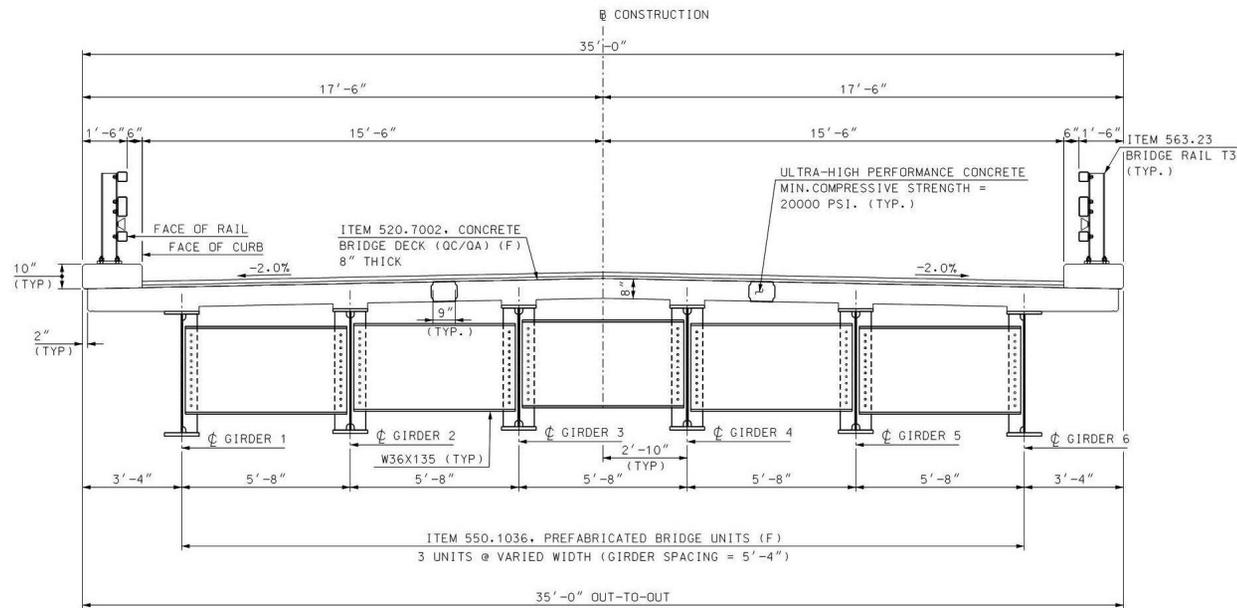
Proposed General Plan



Bridge Deck Sections



EXISTING



PROPOSED

Maintenance of Traffic

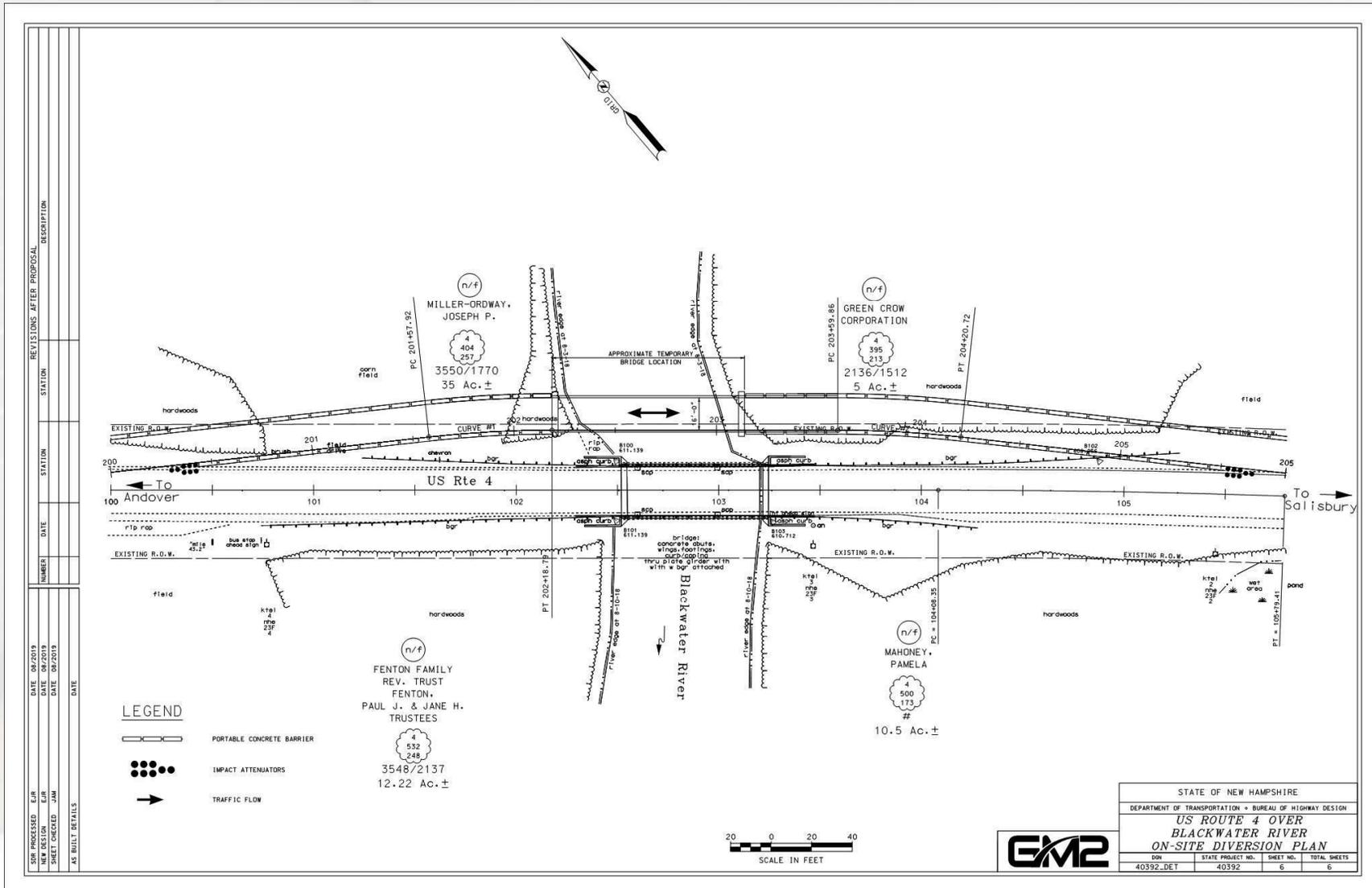
Three Alternatives

- Bridge replacement using Accelerated Bridge Construction (Approx. 28-day closure) and detour on state routes (16 miles for US 4 thru traffic; 22 miles from one side of bridge to other)
- Bridge replacement using conventional construction (3-4 month closure) and detour on state routes (16 miles for US 4 thru traffic; 22 miles from one side of bridge to other)
- Bridge replacement using conventional construction and a temporary on-site diversion upstream (north side) with temporary bridge to maintain alternating two-way traffic with signals (construction duration 4-5 months)

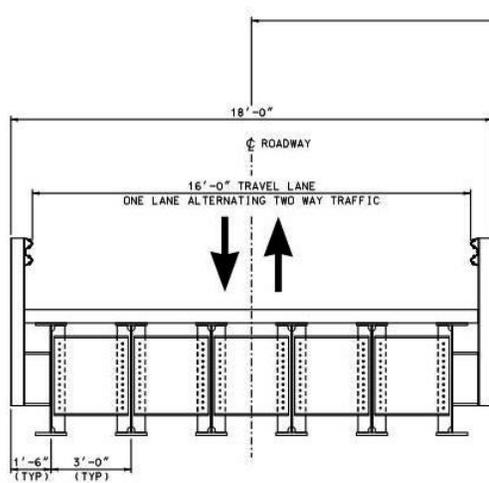
Detour Plan



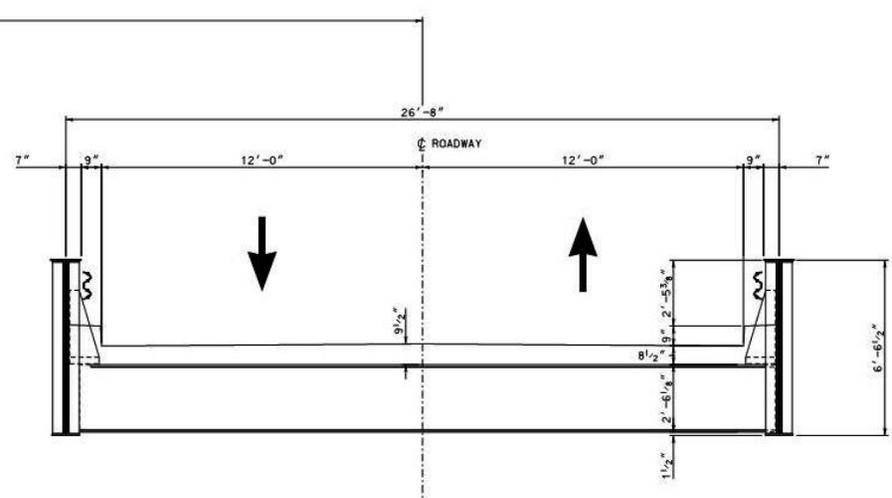
On-Site Diversion Plan



On-Site Diversion Section



TEMPORARY BRIDGE SECTION



EXISTING BRIDGE SECTION

Cultural and Natural Resources

Cultural Resources

- No Cultural Resources have been identified currently
 - The bridge was determined to be **Not Eligible** for National Register of Historic Places
 - If temporary on-site diversion for traffic control is proposed, an Archeological Phase 1A survey will need to be done

Natural Resources

- Prime Wetlands south of bridge
- Endangered Species
 - Northern Long Eared Bat survey will be done
 - Brook floater mussels (survey may be required if impacts to channel are anticipated)
- Entire project in Zone A Floodplain
- Conservation Land: Conservation easement located south of US Route 4 and west of Blackwater River (Avoid impacts)

Right-of Way

- Assumed to be 66 feet wide
- Some property right acquisitions and/or easements are anticipated

Schedule

- Advertise Winter 2021
- Construction Begin Spring 2022
- Construction Completion Fall 2022

Input Needed

- Bus Route
- Pedestrian Usage on US Route 4
- Bike Usage on US Route 4
- Local Events that impact traffic or bring more traffic to US Route 4
- Emergency Response
- Preferred closure time, if ABC used (Spring, Summer, or Fall)
- Flooding History
- Other Concerns or Comments

Questions???

