



# When Neighbors Say No:

## Navigating Complex Property Owner Relationships



COMMITMENT & INTEGRITY DRIVE RESULTS





# Waterway projects within multiple jurisdictions are commonplace

Runnins River at Warren Ave:

**2**  
States

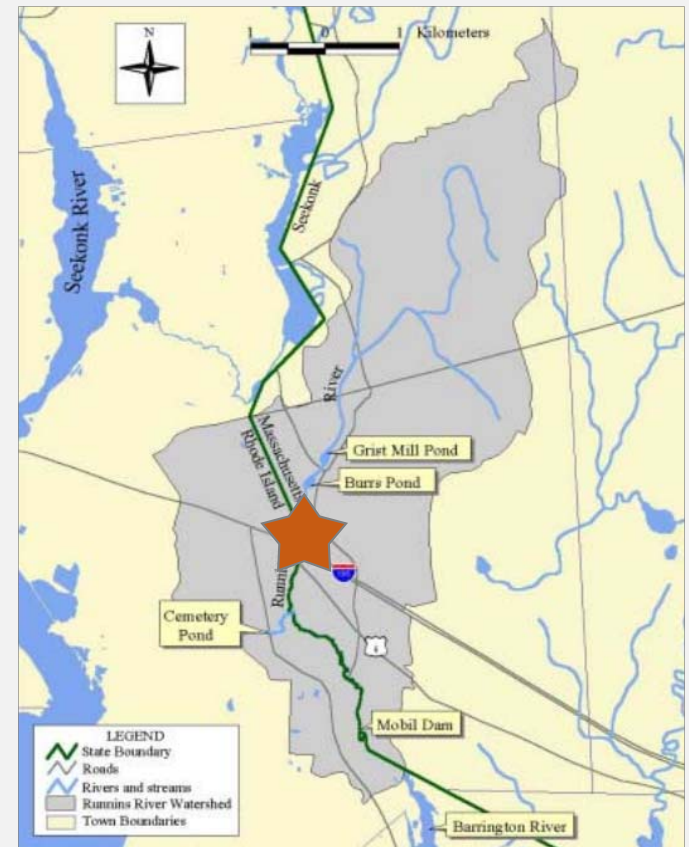
**2**  
Towns

**6**  
Property Owners



# Runnins River defines the RI/MA state line

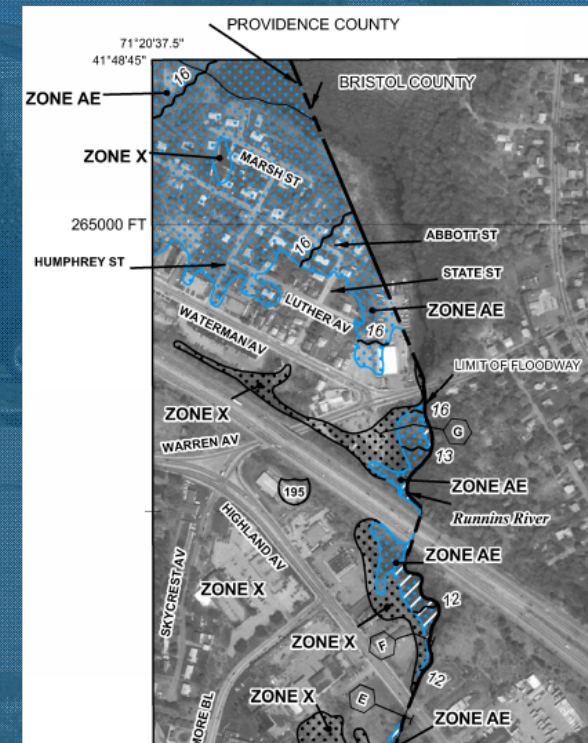
- 7.5 miles long
- 10 square mile watershed
  - 70% in Seekonk, MA
  - 23% in East Providence, RI
  - 7% in Rehoboth, MA







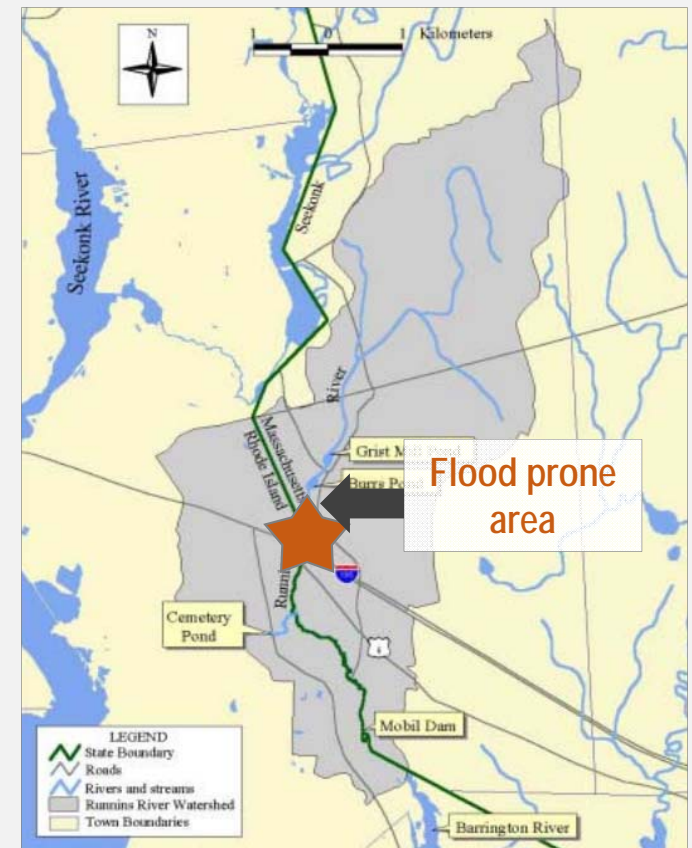
Increase in frequency of flood incidents over the past 40 years in this East Providence, RI neighborhood prompted mitigating actions.





# Past Studies recommended replacing the Warren Avenue Bridge to increase the effective flow area

- 1986 Warren Avenue Drainage Study
- 2007 Runnins River Drainage Study





Hairline cracks with  
efflorescence

FW x 2'H x 6"D  
spall, see photo 9

2013 Rhode  
Island DOT  
Bridge  
Inspection did  
not support  
replacement

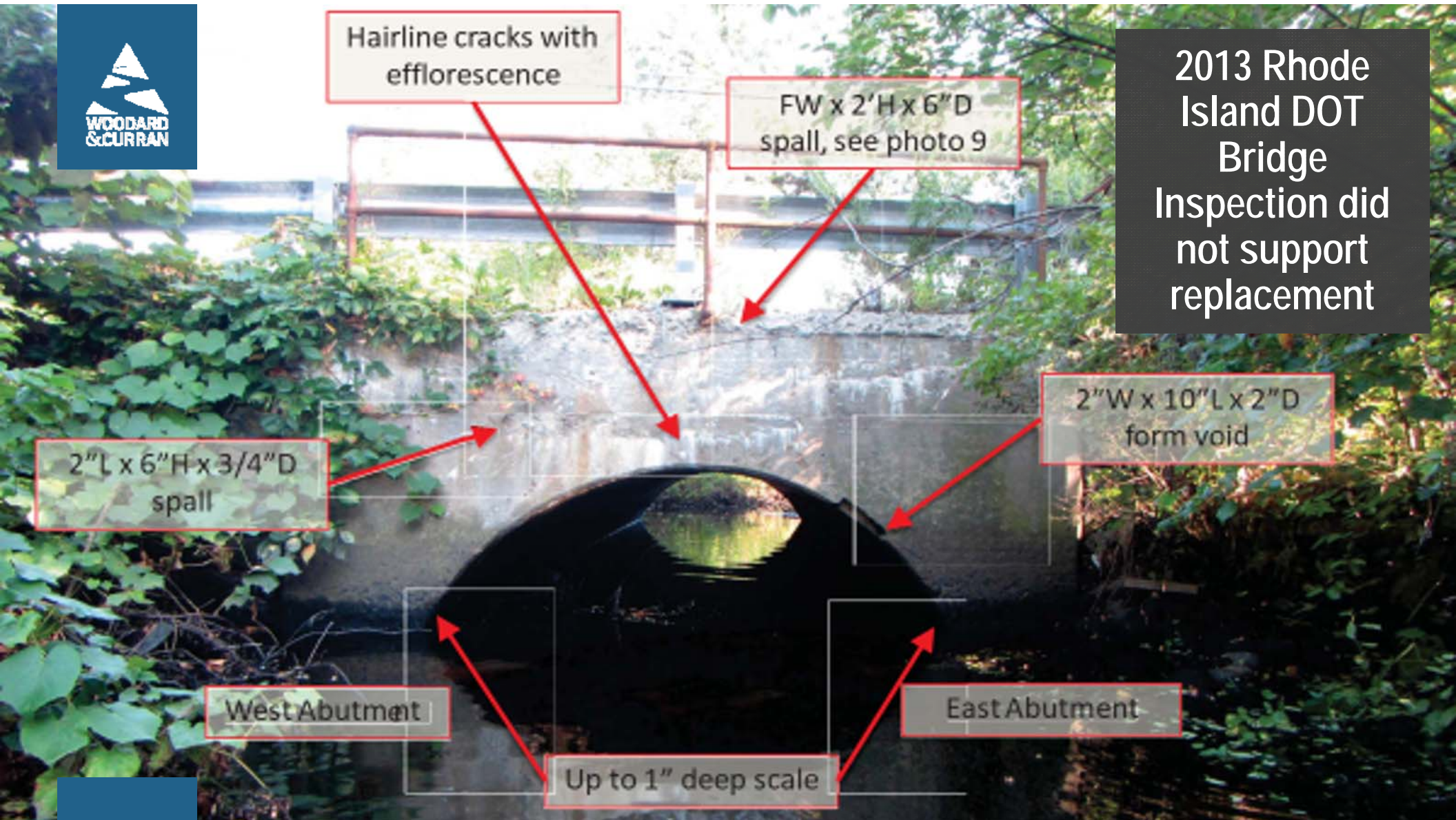
2"L x 6"H x 3/4"D  
spall

2"W x 10"L x 2"D  
form void

West Abutment

East Abutment

Up to 1" deep scale

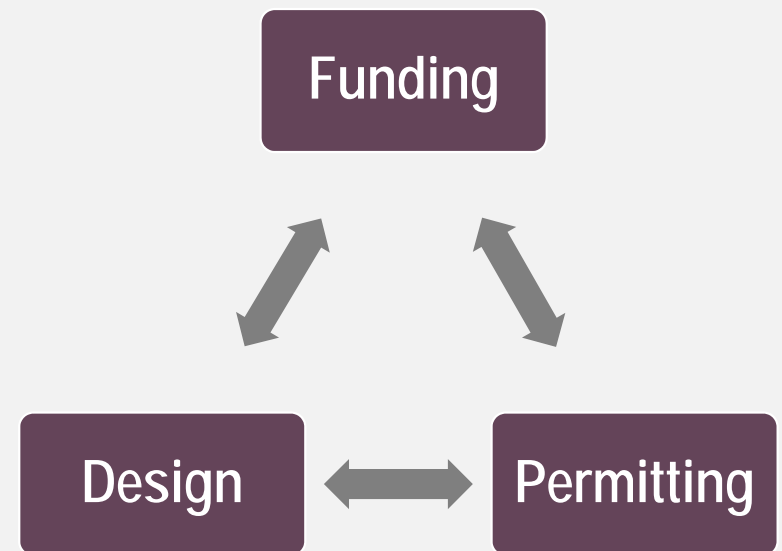




## East Providence Takes Action

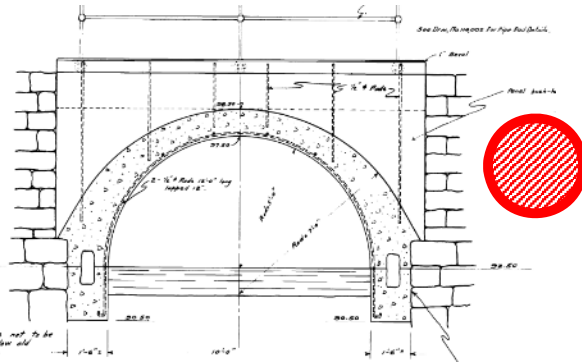
1. Secured a CDBG Disaster Recovery Grant for \$500,000.
2. Requested Design-Build proposals for construction of two 60-inch high relief culverts adjacent to the Warren Avenue Bridge.
3. J.H. Lynch & Sons, Inc. was the successful bidder and was awarded the contract in November 2015.

### The project begins...

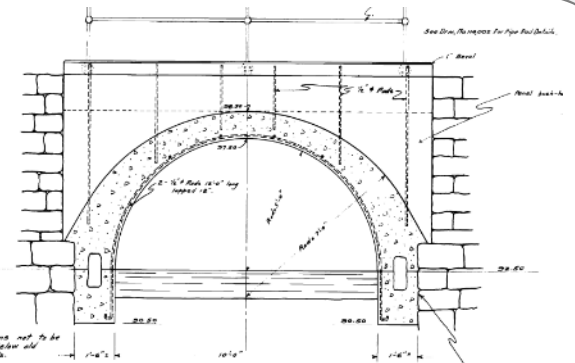
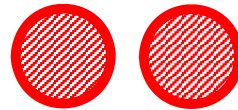


# Alternative Design Options Developed

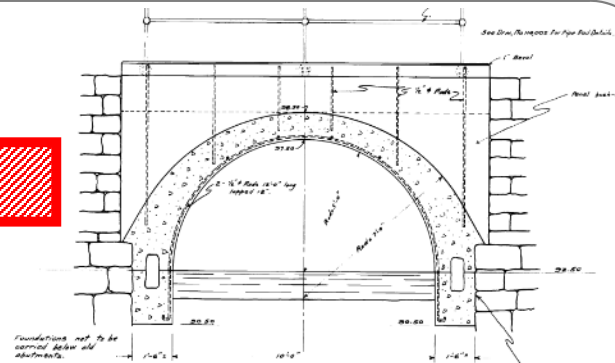
1



2



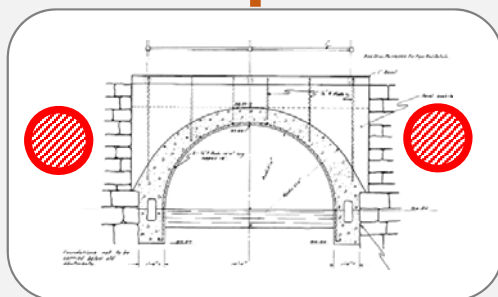
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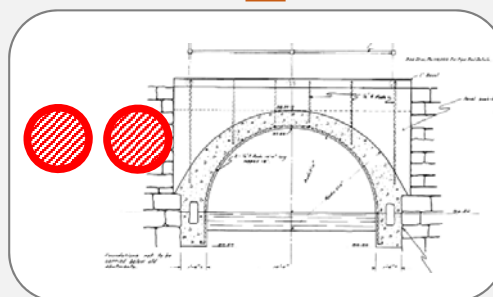


# Option Comparison

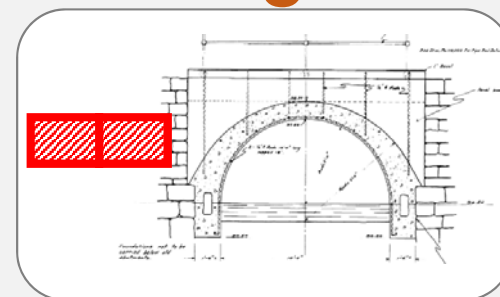
1



2



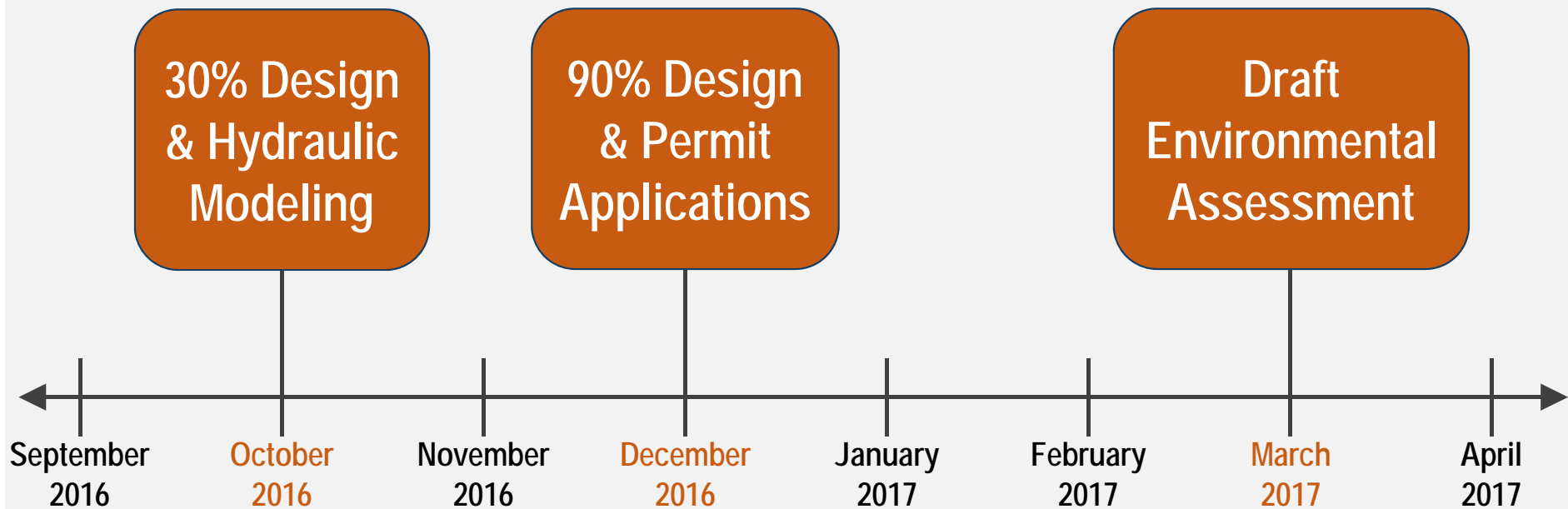
3



Added Cost	\$	\$\$	\$\$+
Added Road Closure	Days	Month	Month
Capacity (CFS)	285	285	345



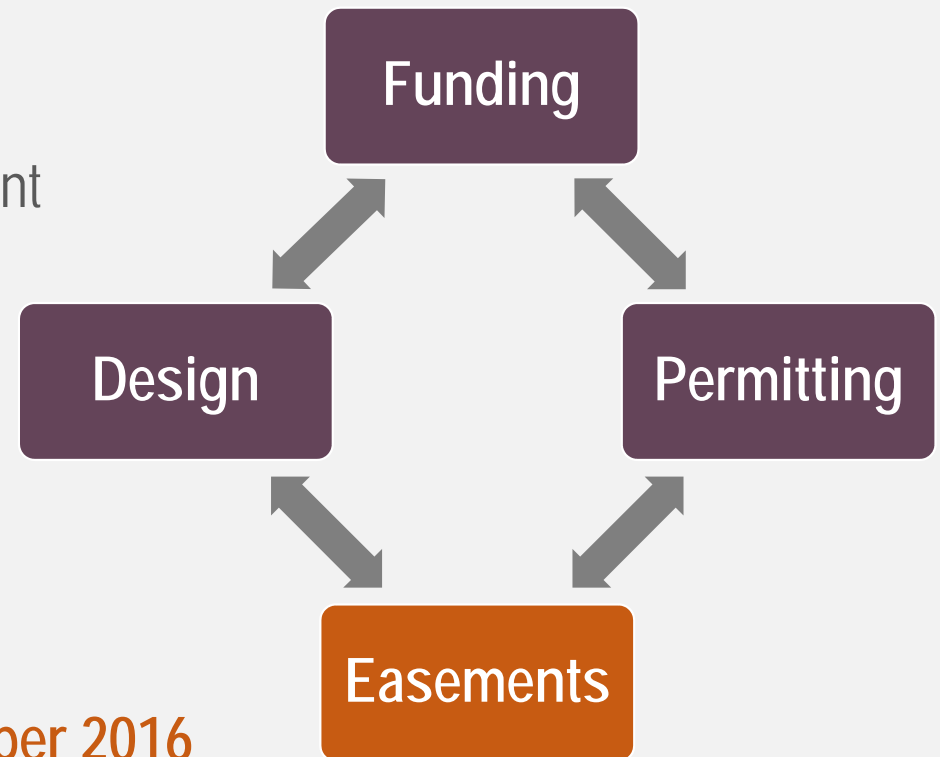
## The CDBG grant conditions drove the schedule





## Easements then become the primary driver

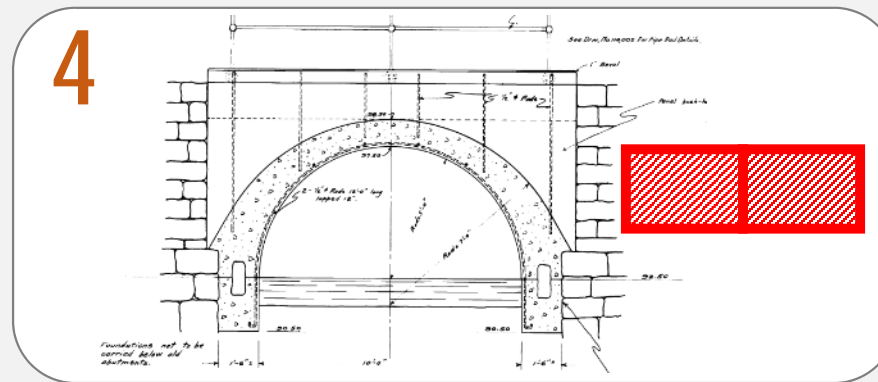
- RIDOT required a temporary construction easement and a perpetual maintenance easement
  - AND
- The selected option required easements from four private property owners



Easement pursuit begins in December 2016

## By June 2017 one opposing property owner forces Option 4

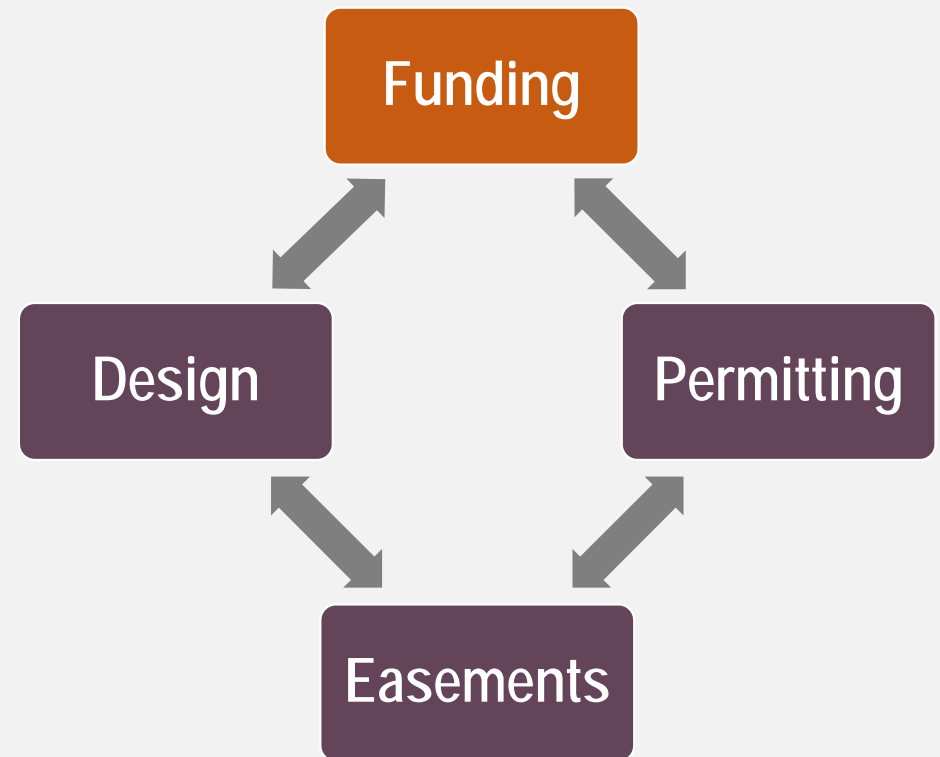
- An East Providence property owner would not allow a temporary construction easement.
- The potential loss of business from the 30-day bridge closure could not be overcome by property improvements or sale of a portion of that property to the City.





## Funding then becomes the project driver

- The CDBG-DR grant could not be used for construction in Massachusetts.

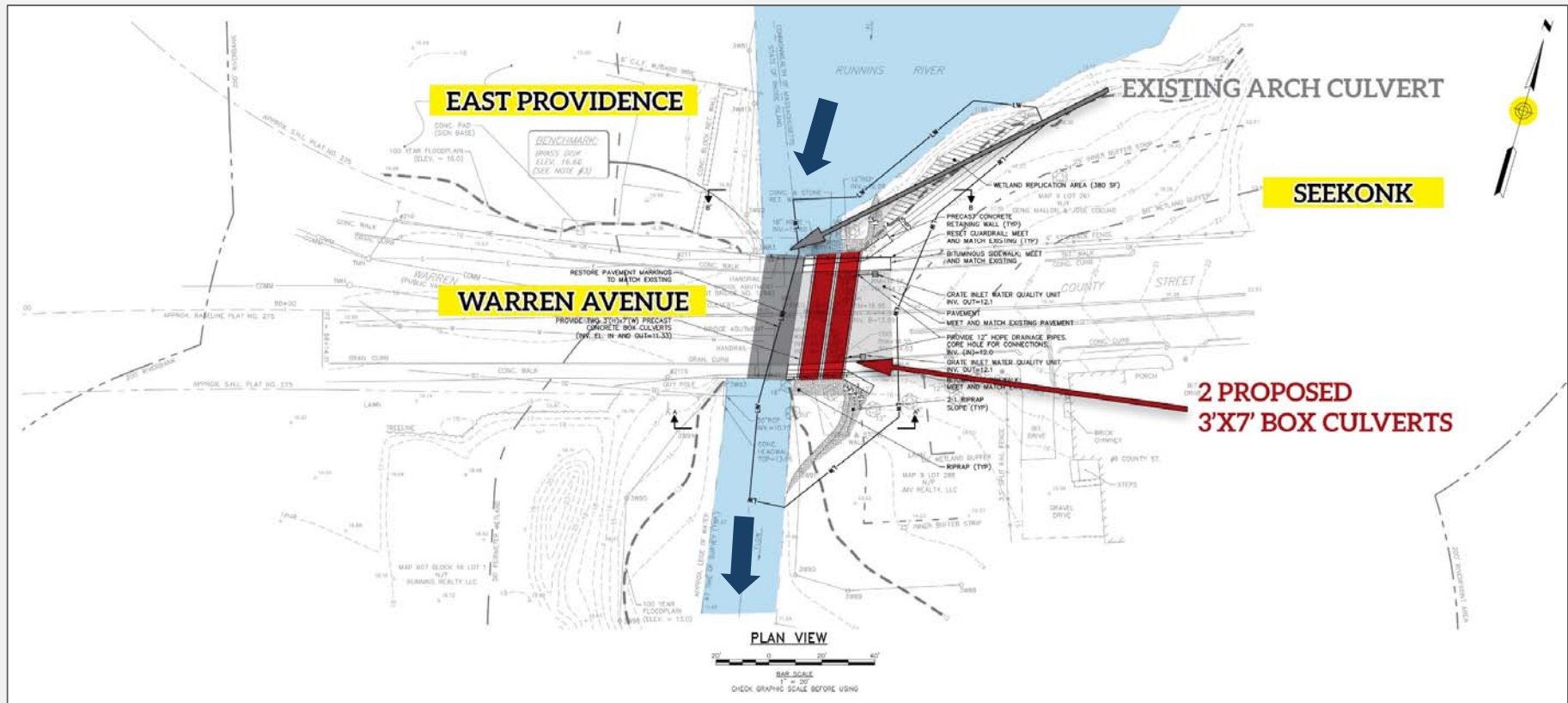


## The BWRF rescues the project

- Rhode Island's Narragansett Bay and Watershed Restoration Fund (BWRF) added a new Flood Prevention and Mitigation Sub-fund in 2017.
- The project was eligible because it mitigates flooding problems in Rhode Island.
- East Providence applied for and received a \$544,025 grant.

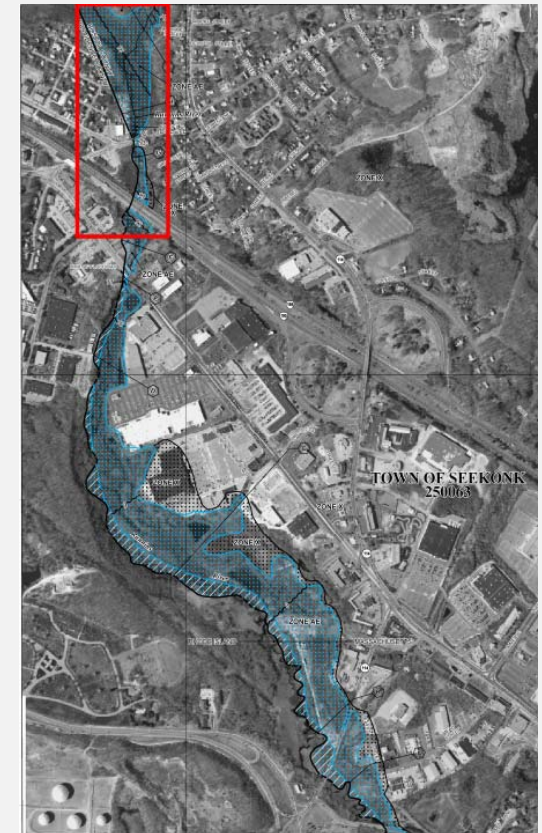






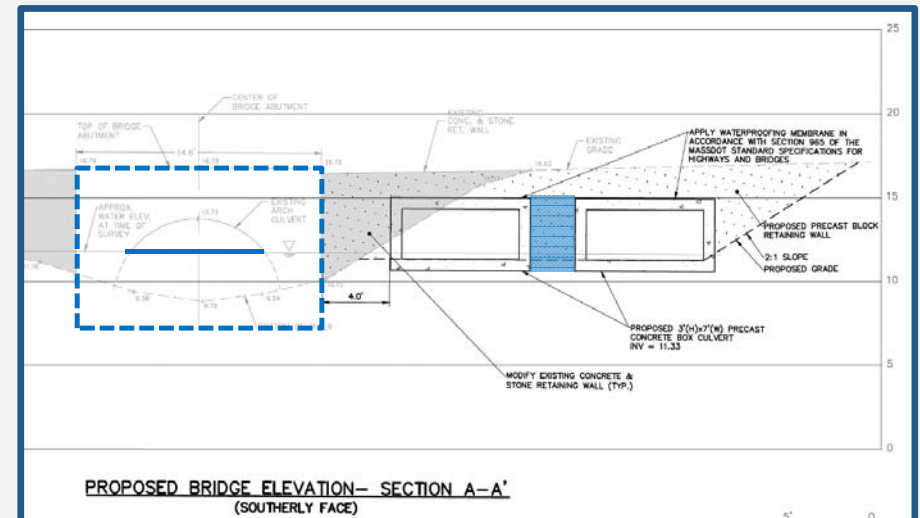
# Hydrologic/Hydraulic Modeling

- Plans of Record
- Peak flow rates developed using RI and MA GIS
- HEC-RAS Model
- Supplemental Dynamic H/H Model
- Findings
  - Significant drop in water elevation upstream (objective of the Project)
  - No adverse impact downstream
  - A FEMA No-Rise Certificate was required



# Design Considerations

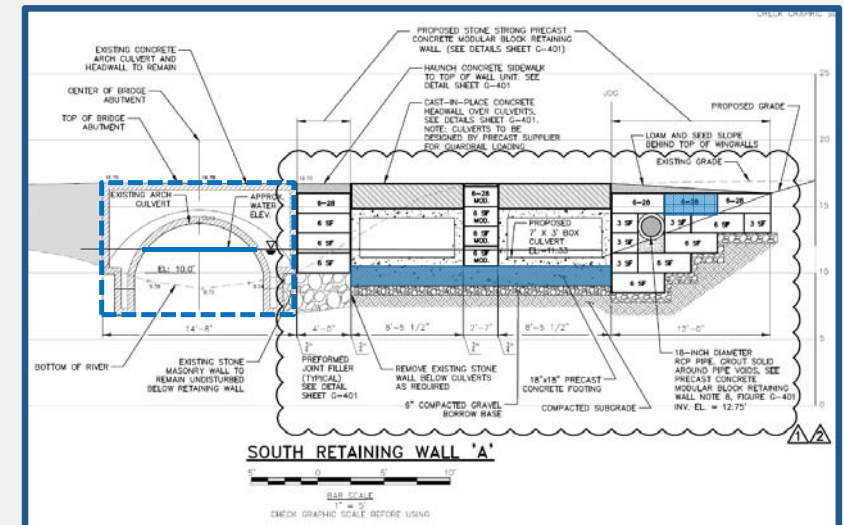
- Base Flow / Low Flow
- Existing RIDOT Arch Culvert
- Existing Utilities
- Town Drainage System Connections
- Future RIDOT / Town of Seekonk Projects
- MassDOT Small Bridge Criteria





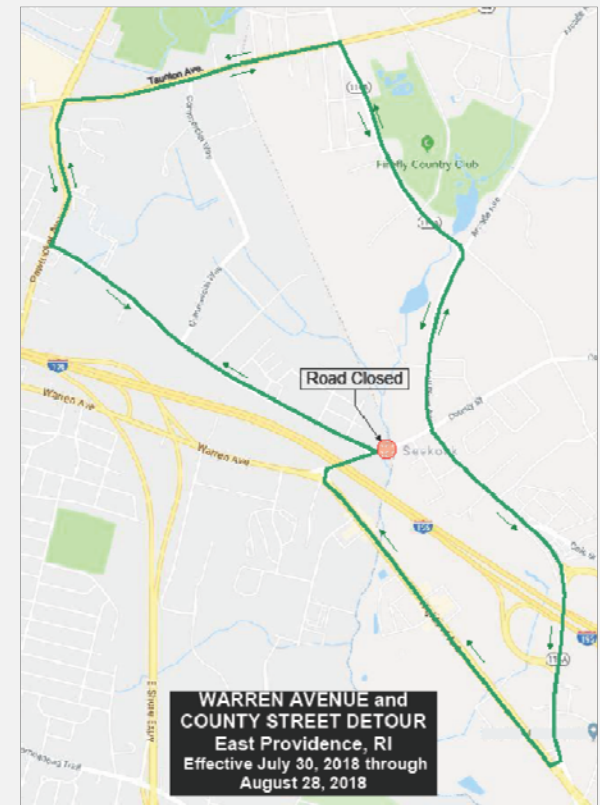


- Structural Stability of Existing Arch Culvert
- Poor Subgrade Conditions
- Dewatering
- River Bypass
- Accelerated Construction Techniques



## Permits were received from:

- RI Department of Transportation:
  - Physical Alteration Permit
  - Traffic Management Plan
- Massachusetts Department of Transportation:
  - Traffic Management Plan
- Seekonk Conservation Commission:
  - Order of Conditions
- Army Corps of Engineers:
  - General Permit 10 for Linear Transportation Projects and Stream Crossings



## Construction was ready to proceed in July 2018

- Temporary easements for construction
- The schedule met the MA Division of Marine Fisheries Time of Year restrictions
- Notifications were sent to all stakeholders two weeks in advance







## When suddenly...

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**The Town of Seekonk realized construction was imminent.**

- The road opening permit was withheld until:
  - A second peer review was performed on the river hydraulics;
  - The culvert design was revised to separate the two new culverts by 2+ feet to avoid classification by Mass DOT as a BRI bridge;
  - The Seekonk Conservation Commission approved the modified design with the culvert separation; and
  - Miscellaneous additional amenities to County Street were incorporated into the project.



## Two months later

- The Division of Marine Fisheries approved the work within the fall time of year restriction.
- Heavy rains throughout September and October 2018 foretold problematic construction.
- The team decided to delay construction to July 2019.





# Construction



Existing Utilities



Drainage



Dewatering





# Construction







## Construction was completed within 30 days





The Project removed 25 homes from a 100-year flood area



The Project removed 30 homes from a 10-year flood area







## Key project take-way:

### Communicate early in the project and aggressively seek responses from all stakeholders

- Early easement negotiations with the property owners would have confirmed the Massachusetts location before design began and avoided:
  - RIDEM permitting
  - Permit modifications
  - Preparation of an Environmental Assessment
  - CDBG time extensions
- A visit to the Seekonk DPW could have prompted the director to perform a detailed project review months earlier, thus avoiding the one-year construction delay.
- A pre-application meeting with the RIDEM grant administrator contributed to the BWRP grant award.





# Questions?



**Jan Greenwood, P.E.**

[jgreenwood@woodardcurran.com](mailto:jgreenwood@woodardcurran.com)



**Paul Jacques, P.E.**

[pjacques@woodardcurran.com](mailto:pjacques@woodardcurran.com)