

Burlington DAB/HPRC Meeting

Burlington-Winooski BF RAIZ(2)
Burlington STP 5000(29)

January 9, 2023



**BURLINGTON
WINOOSKI
BRIDGE**



THE CITY
OF **BURLINGTON**



Introductions

- **Bob Klinefelter** – VTrans Structures Project Manager
- **Mike LaCroix** – VTrans Traffic Project Manager
- **Josh Olund** – HNTB Structures Project Manager
- **Steve Spear** – HNTB Roadway Project Manager
- **Judith Ehrlich** – VTrans Historic Preservation Officer
- **Britta Tonn** – VHB Director of Cultural Resources

Agenda



Project Location



Past Efforts



Current Efforts



Future Efforts



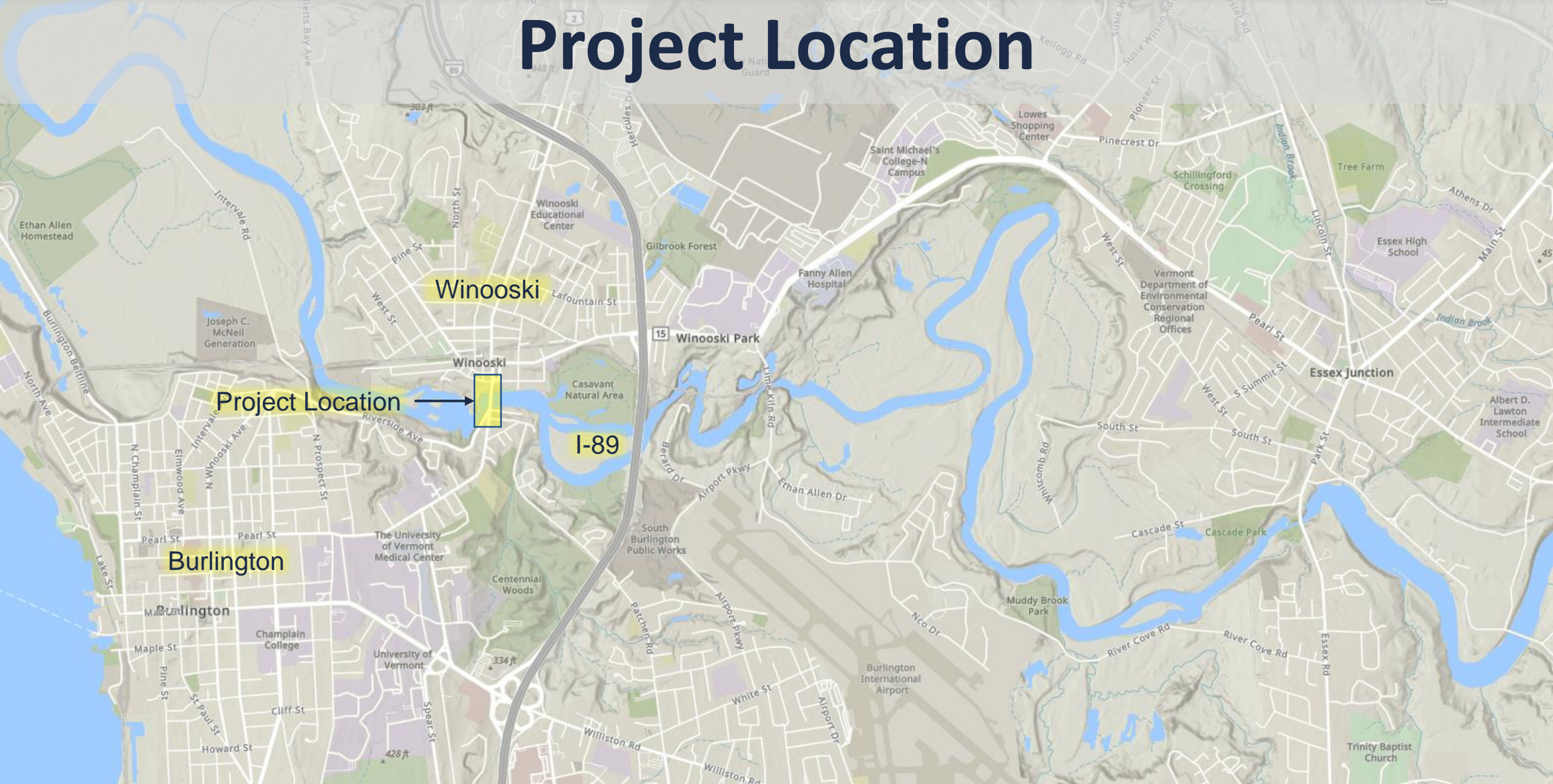
Project Delivery



Project Location



Project Location



Project Site



Image Landsat / Copernicus

Project Area



Image Landsat/Copernicus

Project Focal Points

Intersection

Bridge

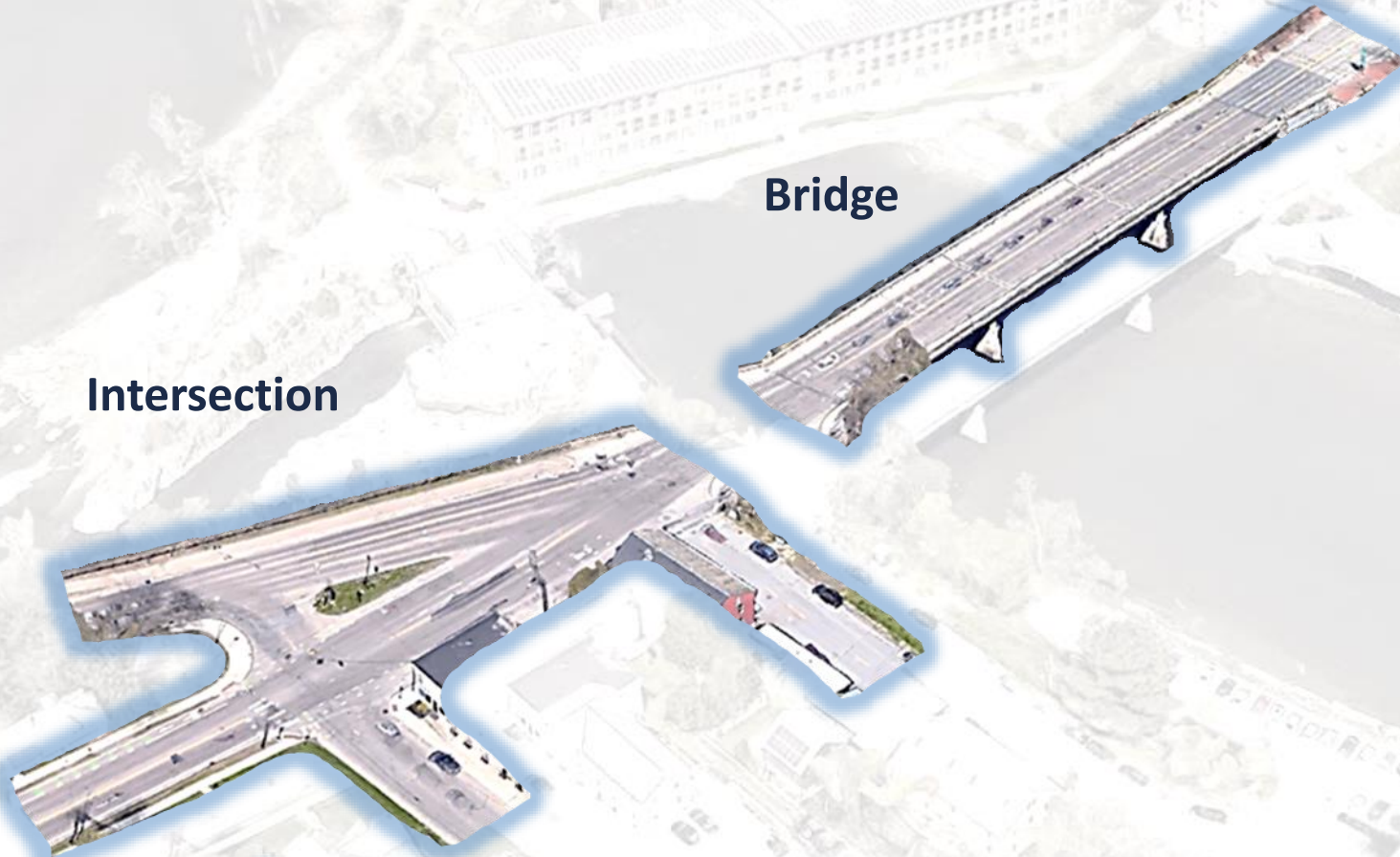


Image Landsat/Copernicus



Past Efforts



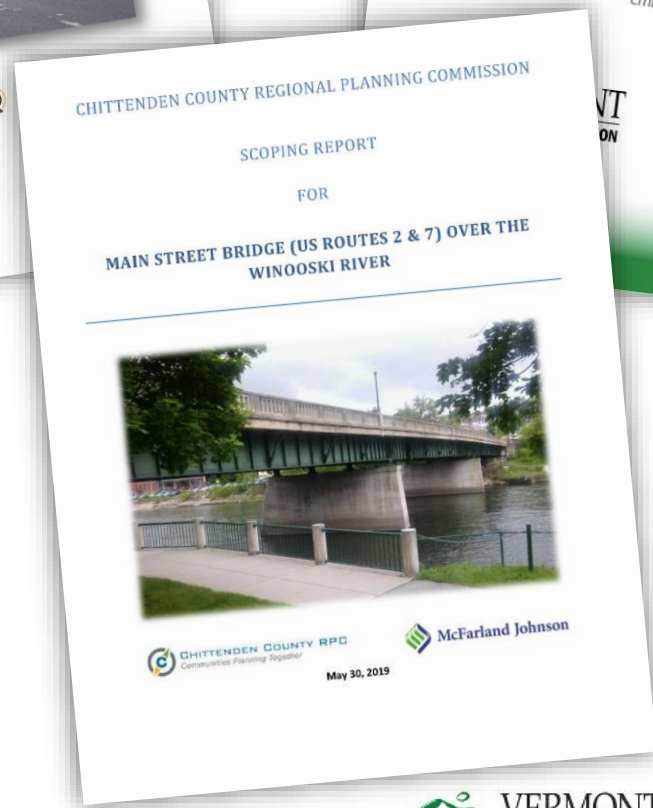
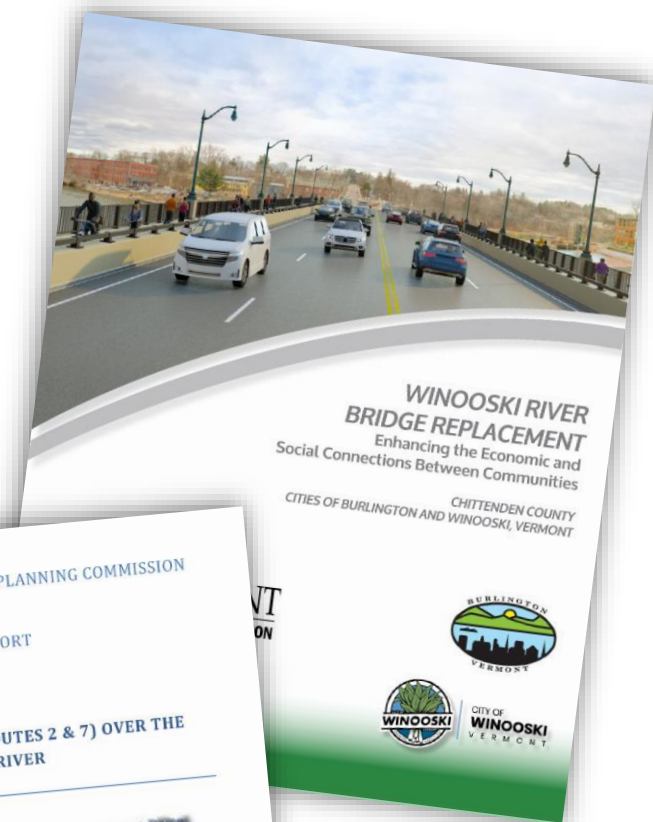
Project Definition

April 2017 – May 2019

- Purpose and Need Established
- Public Meetings
- Project Advisory Committee Meetings
- City Council Meetings
- Traffic Study
- Alternatives Evaluation
- Preferred Alternative Defined

Project Reports

- Bridge Scoping Report
- Intersection Scoping Report
- Bridge Grant Application



Bridge Scoping Report (2019)

- Recommended replacement
- Focus on bike/pedestrian accommodations
- Conceptual construction methods

CHITTENDEN COUNTY REGIONAL PLANNING COMMISSION

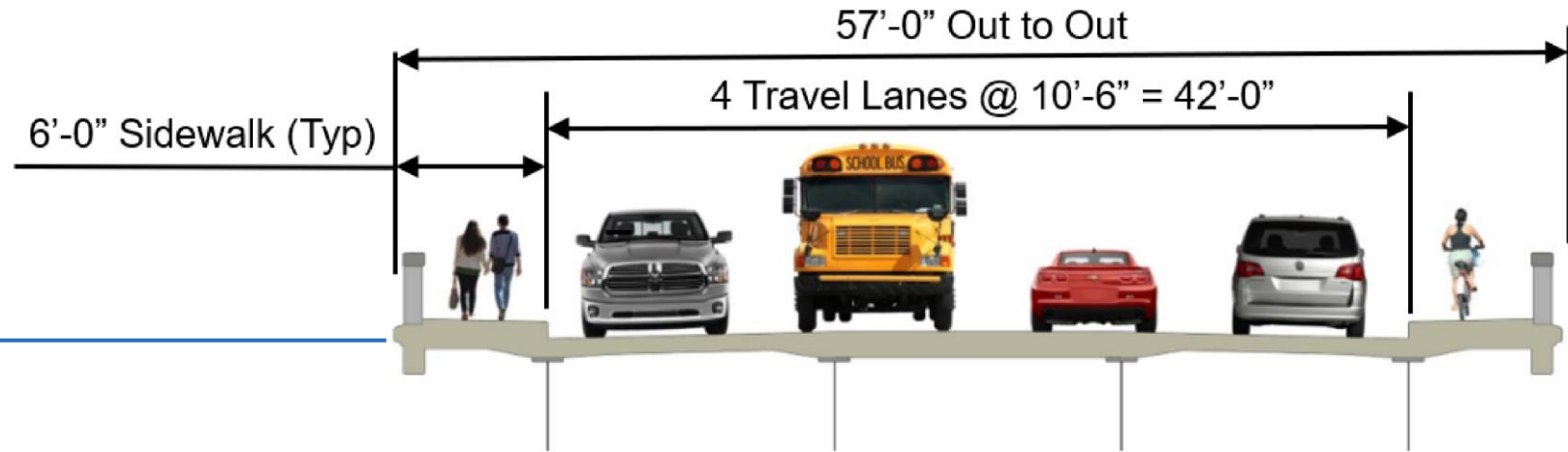
SCOPING REPORT

FOR

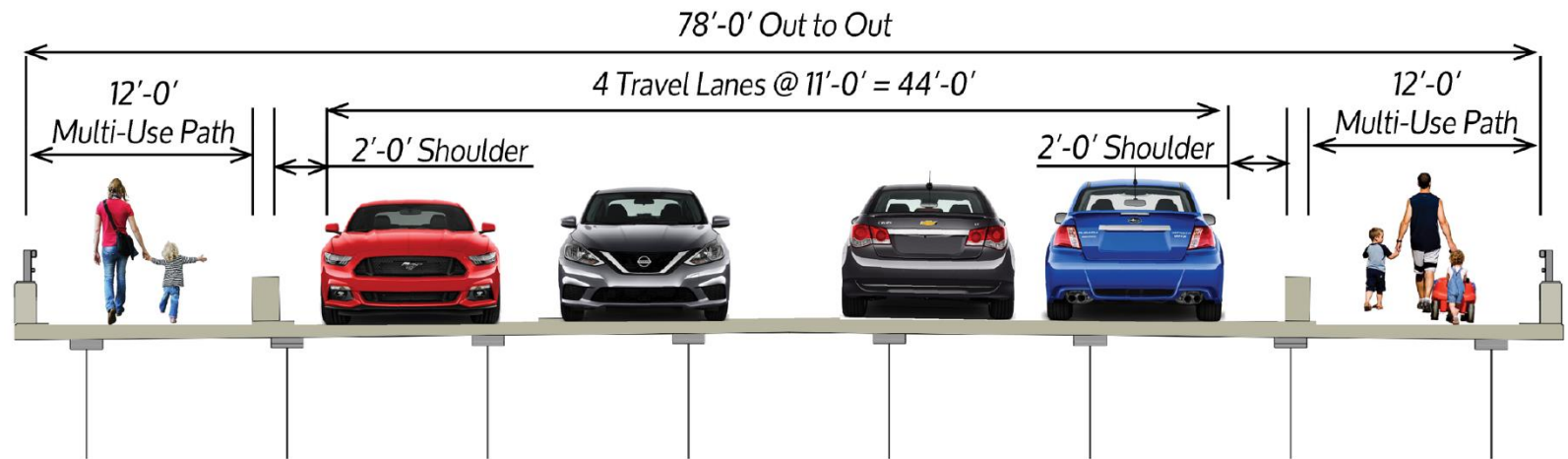
MAIN STREET BRIDGE (US ROUTES 2 & 7) OVER THE
WINOOSKI RIVER



Bridge Features



- Complete replacement
- Wider lanes and shoulders
- Separated multi-use paths



Intersection Scoping Report (2019)

- Recommended 4-Way intersection
- Focus on bike/pedestrian accommodations, mobility, and safety

COLCHESTER AVENUE/RIVERSIDE AVENUE
Burlington, Vermont

Final Scoping Report



Prepared by:

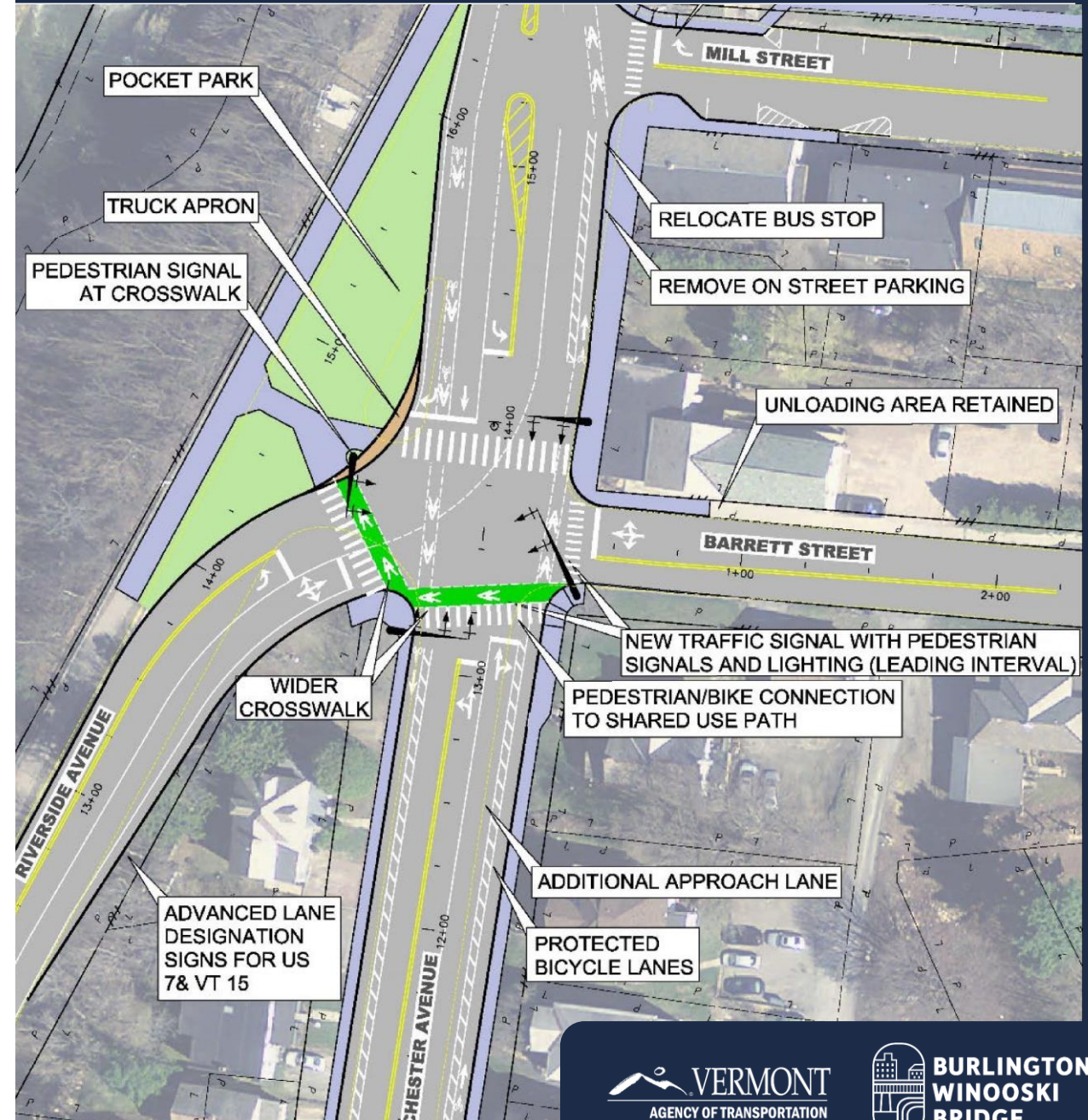


Prepared for:



Intersection Features

- Consolidated intersection
→ Improved safety and mobility
- Emphasis on Bike/Pedestrian improvements



Bridge Grant Application (2022)

- Obligated to:
 - Improve safety
 - Address bike/pedestrian accommodations
 - Complement the natural and cultural environment
 - Provide appealing bridge



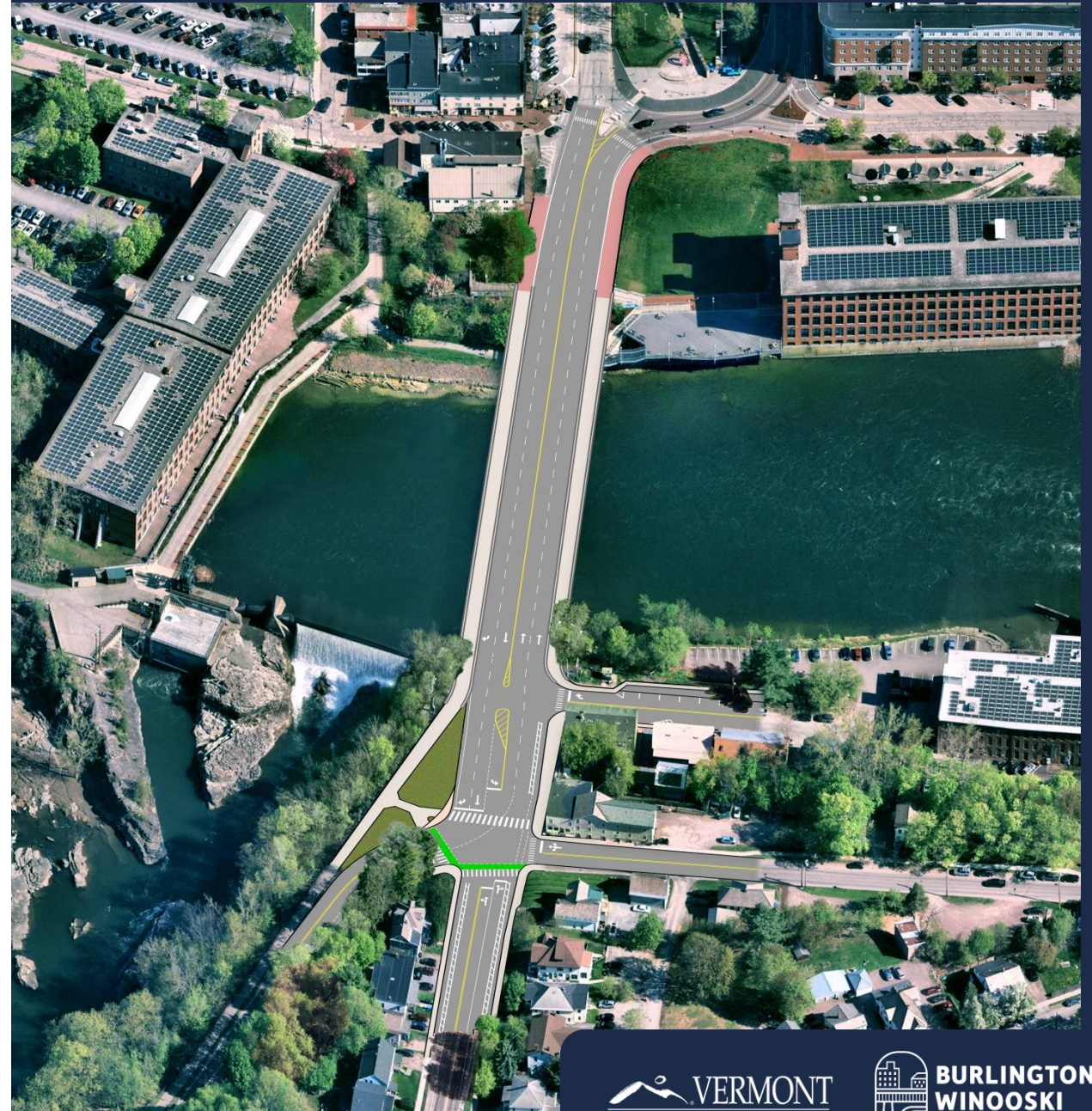
WINOOSKI RIVER BRIDGE REPLACEMENT

Enhancing the Economic and
Social Connections Between Communities

CHITTENDEN COUNTY
CITIES OF BURLINGTON AND WINOOSKI, VERMONT

Project Compilation

- Concept Plans complete
- Need to combine recommendations of intersection and bridge project





Current Efforts



Project Design

Feb 2023 – June 2026 *(est)*

- Preferred Alternative Refinement
- Preliminary Design
- Traffic Control
- ROW Process
- Utility Relocation
- Environmental Permitting
- RFQ and RFP Development
(Design-Build Contracting)

Project Design

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- Preferred Alternative Refinement
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Preferred Alternative Refinement

- Public Outreach
- Stakeholder Engagement
- Property Owner Meetings
- Initial Utility Coordination
- Initial Environmental Coordination

Traffic Calming

Aesthetics

Construction Congestion

Bike/Ped Safety

Mobility

Business Impacts

Construction Costs

Contaminated Soils

Historic Significance



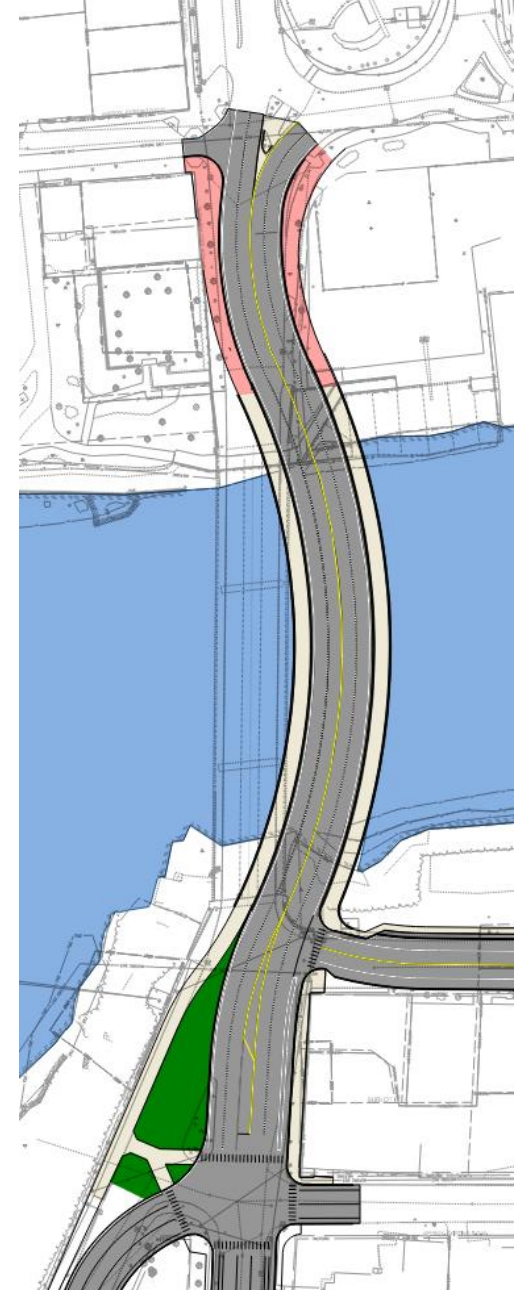
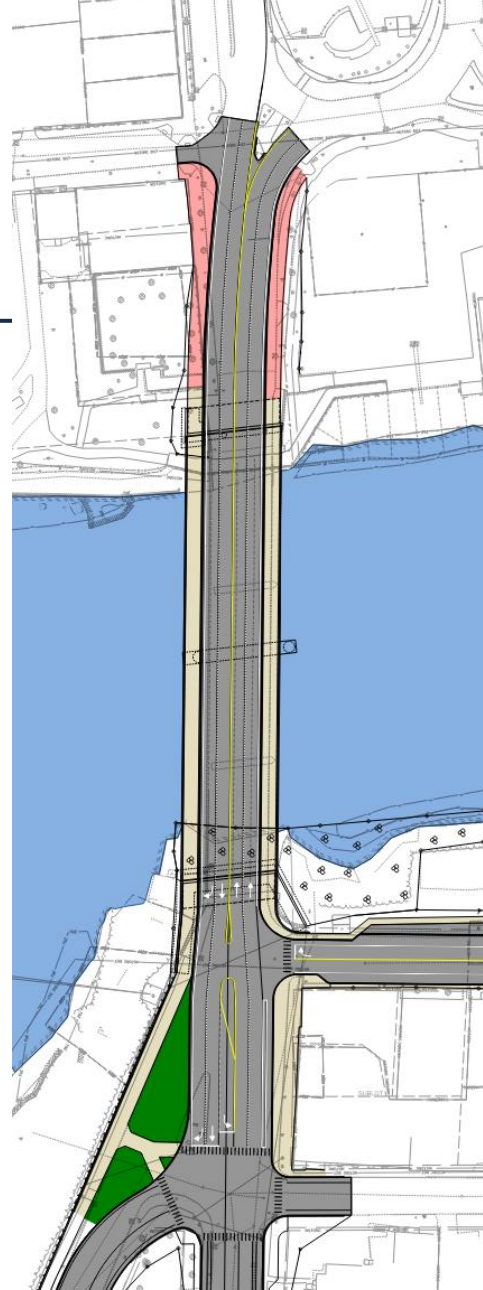
Preliminary Design

- Ground Survey
- Combining Bridge and Intersection
- Reviewing Constructability



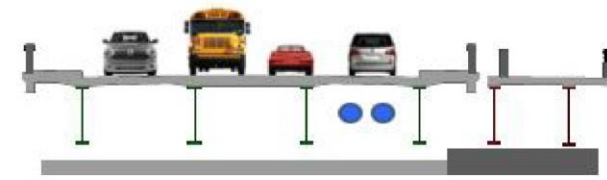
Alignments

- Multiple Variations Explored
- Different Phasing, Traffic Control

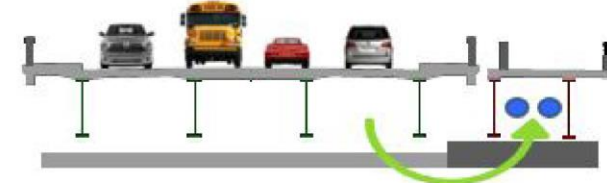


Bridge Phasing

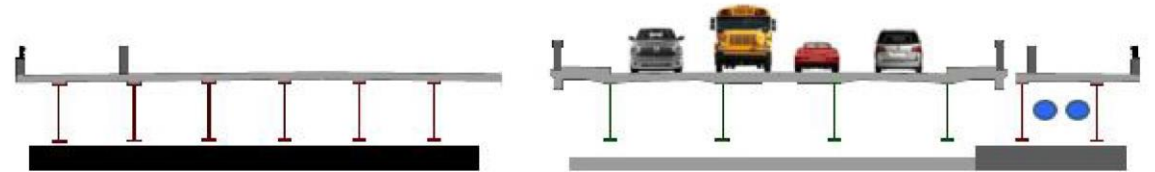
- Build new bridge, next to existing bridge
- Transfer Pedestrians and utilities
- Temporary 4 to 6 week closure for demolition and sliding new bridge together



Phase 1 – Widened Portion of Substructure Units and Superstructure Constructed



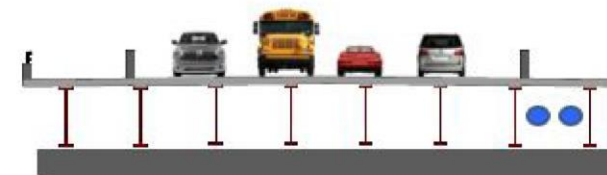
Phase 1a – Utilities Relocated



Phase 2 – New Bridge Superstructure Built Adjacent to Existing Bridge on Temporary Supports



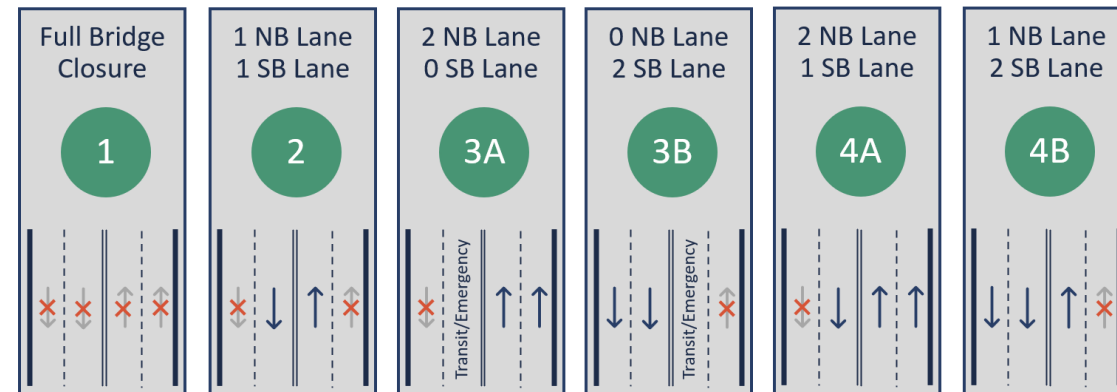
Phase 3 – Bridge Closed to Traffic, Existing Bridge Superstructure Removed, and New Bridge Superstructure Slid to Final Location



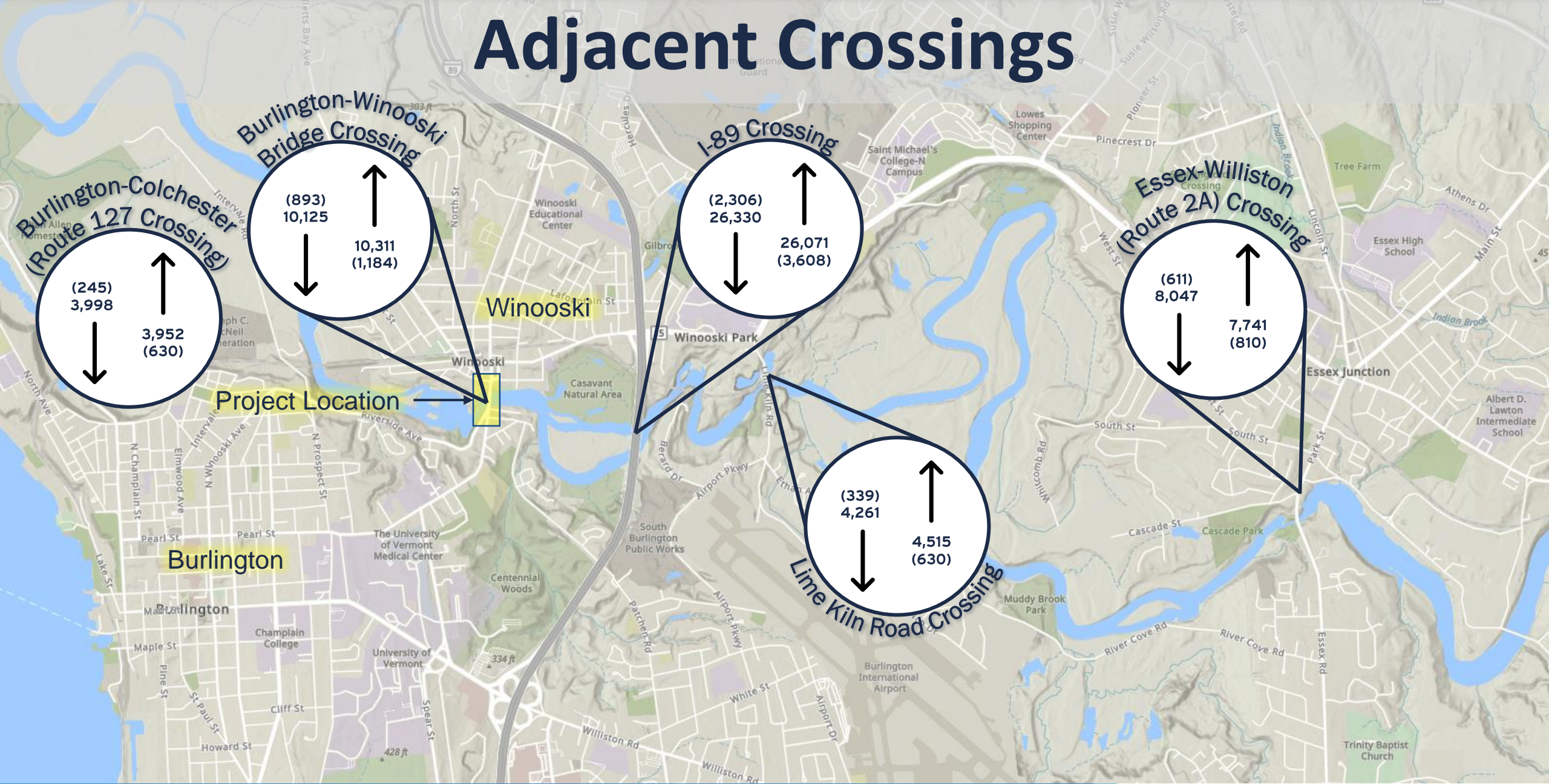
Phase 4 - New Bridge Opened to Traffic

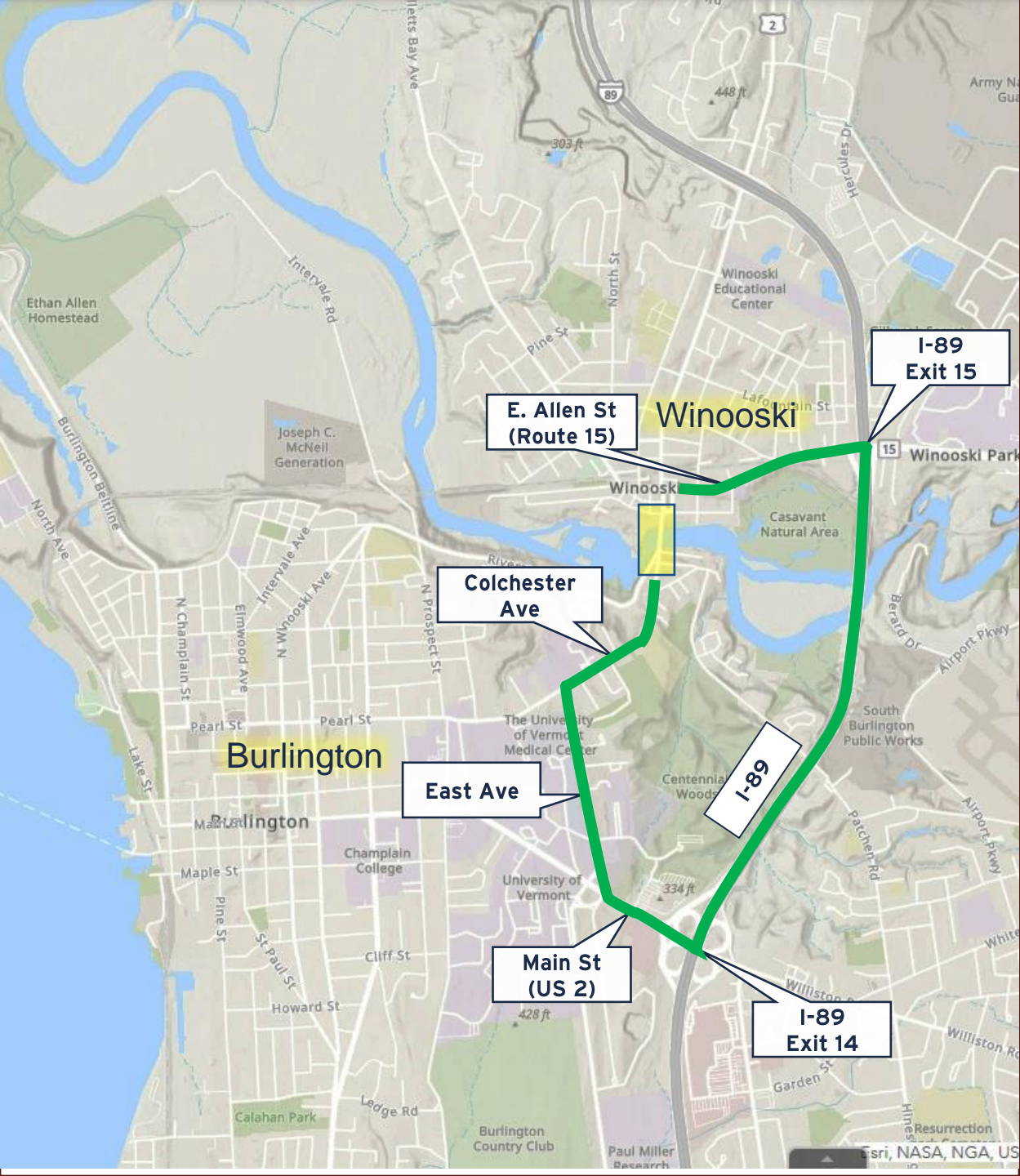
Maintenance of Traffic

- 25,000 Vehicles & 300 Pedestrians per day
- Need to balance:
 - Minimize impact to traveling public, and
 - Safe, sufficient construction site
- Utilize combination of:
 - Temporary lane closures
 - Temporary bridge closure



Adjacent Crossings

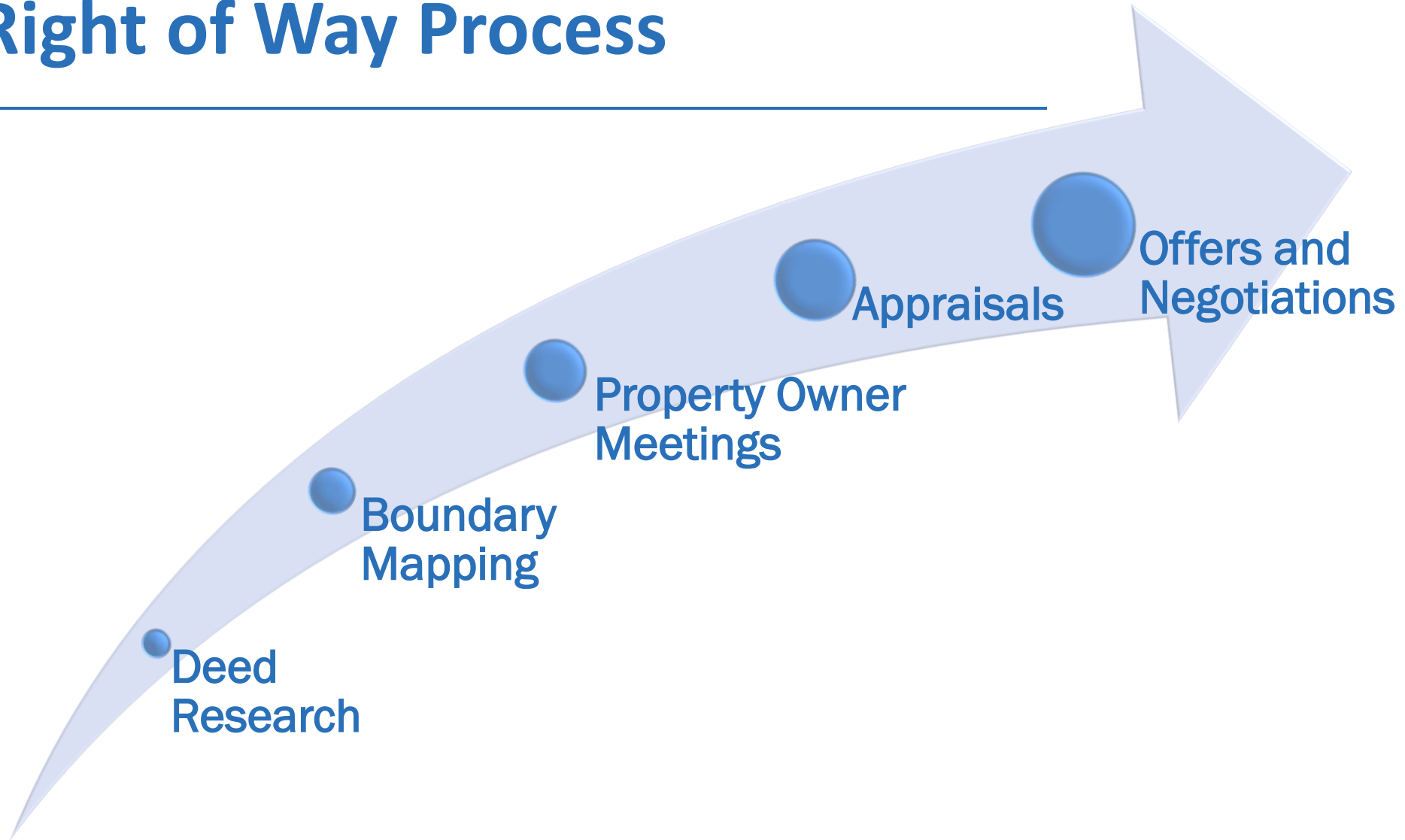




Temporary Detour

- Shortest vehicular detour
- Effects on adjacent roads and intersections
- **All Pedestrians Maintained On Site!**

Right of Way Process





Future Efforts



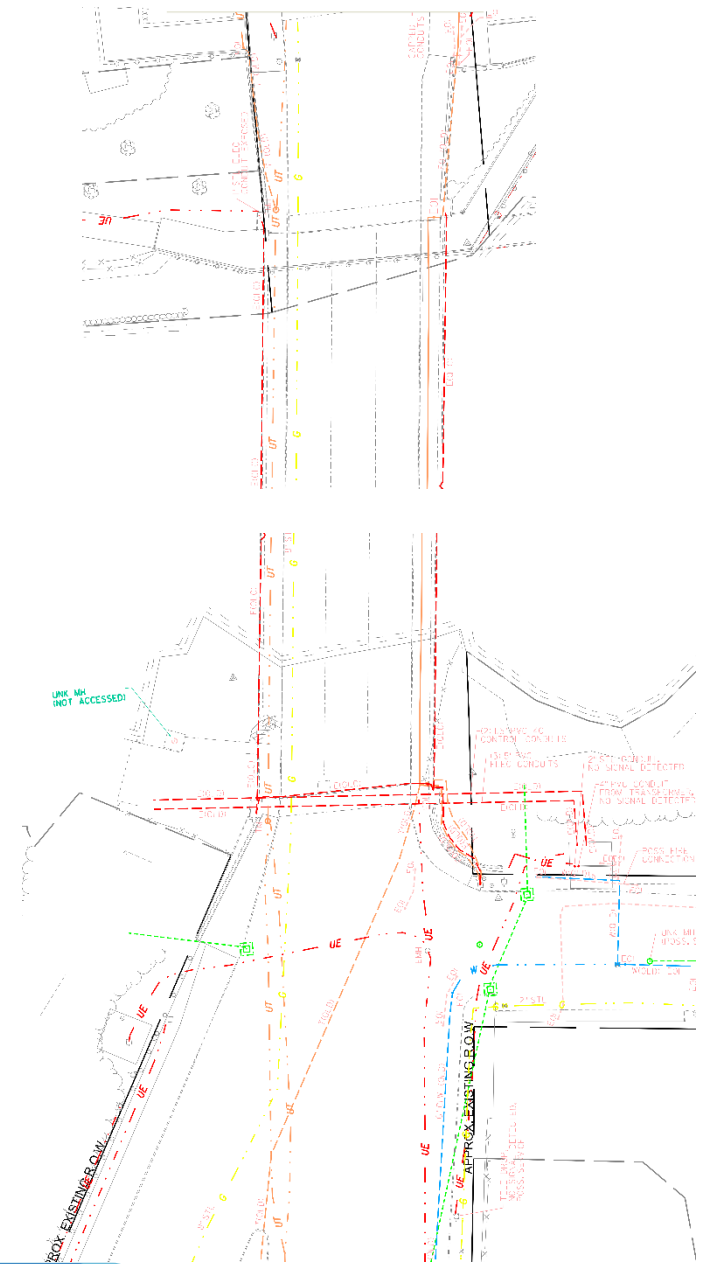
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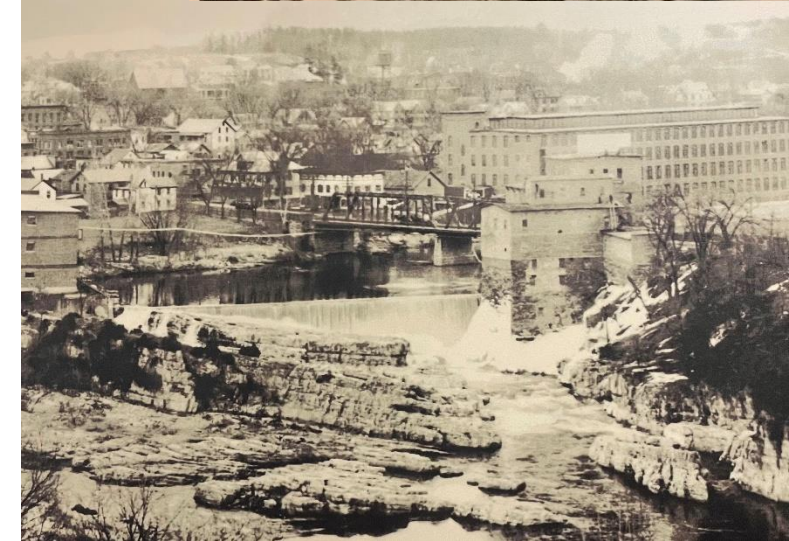
Utility Relocation

- Test Pits
- Relocation Plans and Construction Sequencing
- Utility Agreements
- *Municipal Utility Relocations are Project Reimbursable*

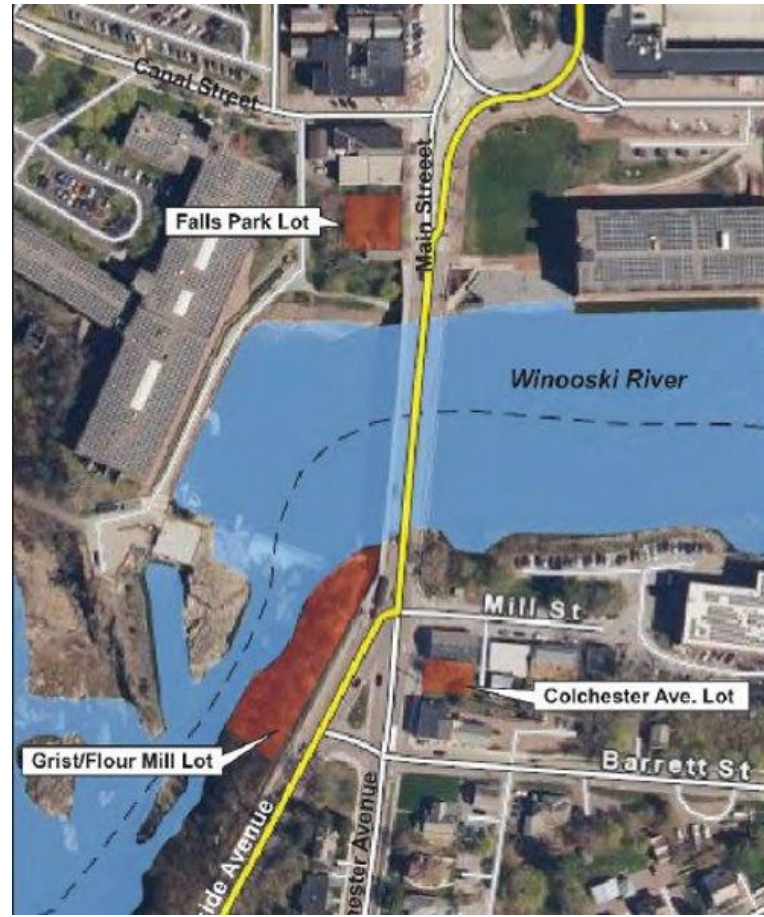


Environmental Permitting

- Permitting Restriction Commitments
- Historic Process (Section 106)
 - Bridge is listed on National Historic Register
 - Replacement will be an Adverse Effect
 - Consultation process for mitigation
 - Winooski Falls Historic District
 - Multiple Historic Properties



Archaeological & Historical



Historic Properties



What is Design-Build Contracting?

Project delivery method that:

- Incorporates final design and construction into a single contract.
- Places increased responsibilities on the Contractor in an attempt to reduce risks and costs to the State.

Why Use Design-Build Contracting?



Promotes Innovation



Improves Design/Construction Efficiencies



Reduces Construction Costs



Reduces Construction Schedule

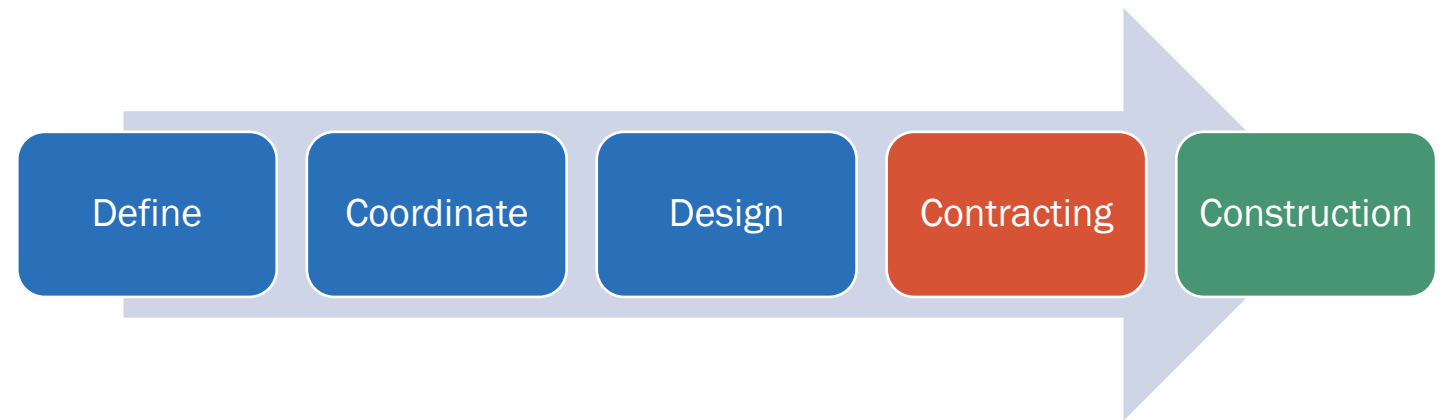
Design-Bid-Build (Traditional) Contracting

VTrans

- Preliminary Design
- Environmental Coordination
- Final Design
- Right of Way Process
- Permitting
- Utility Relocation
- Construction Contracting
- Public Outreach
- Construction Inspection
- Construction Oversight

Contractor

- Construction



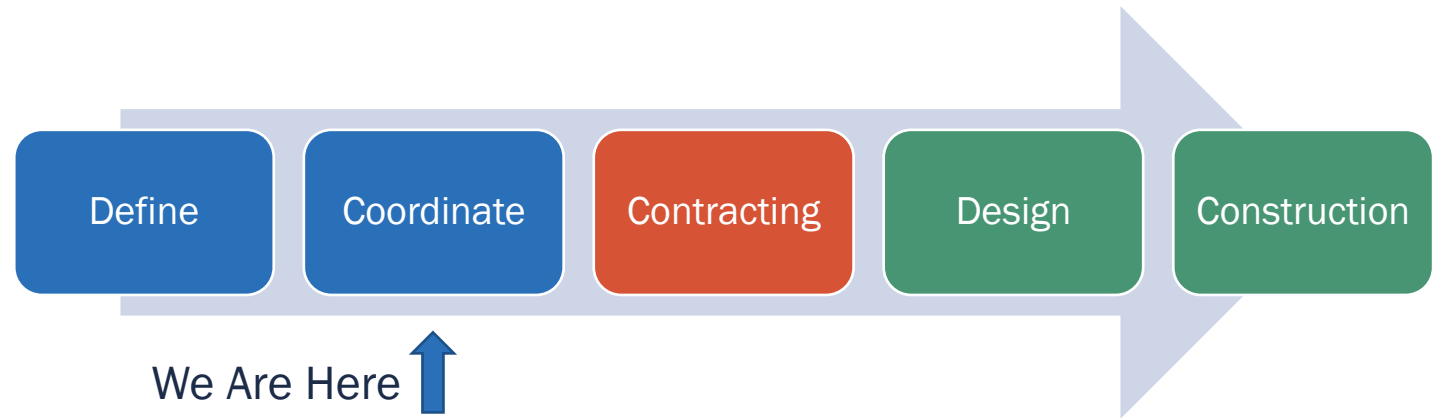
Design-Build Contracting

VTrans

- Preliminary Design
- Environmental Coordination
- ~~Final Design~~
- Right of Way Process
- ~~Permitting~~
- Utility Coordination
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- Construction Oversight

Contractor

- Final Design
- Utility Relocation
- Permitting
- Public Outreach
- Construction



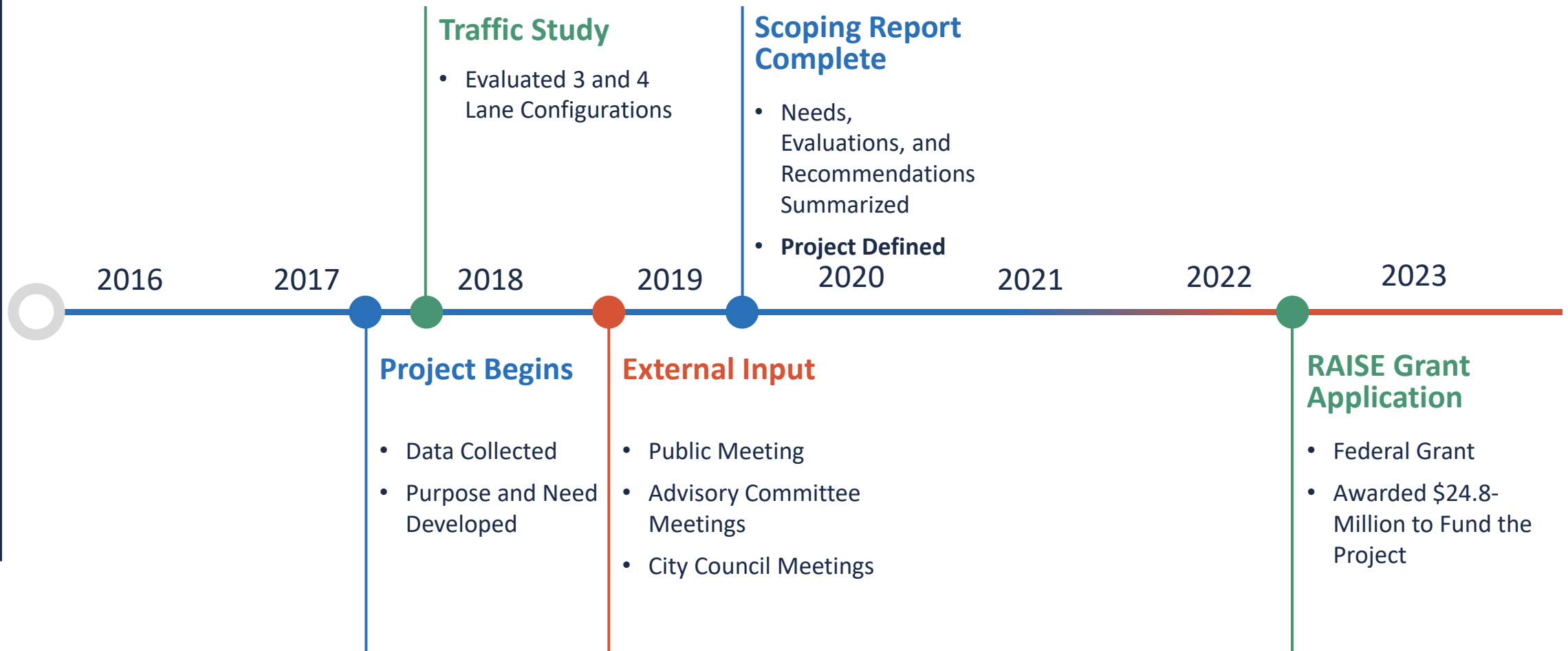
What Does This Mean?

- VTrans will develop design and construction guidelines – need to provide leeway for innovation to occur
- Final features (number of bridge girders, site restoration, etc) may be the decision of the Contractor
- Checks and balances with VTrans maintained

Project Delivery



Schedule – Past

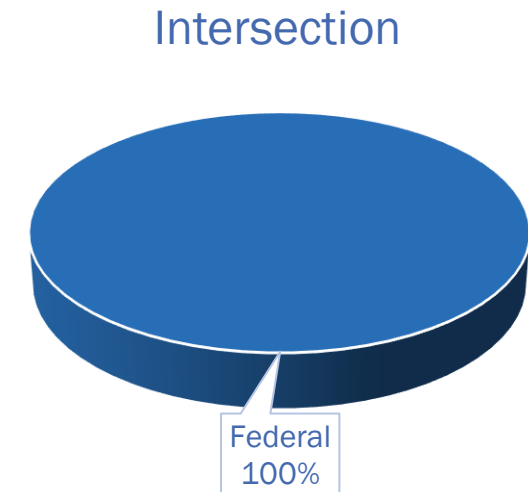
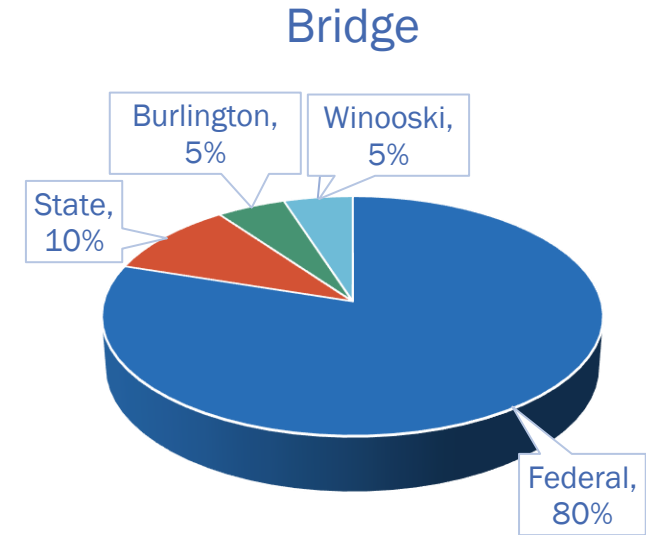


Schedule – Current and Future



Project Costs and Funding

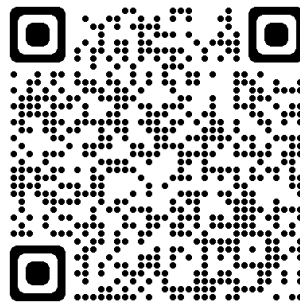
- Project Received a Federal RAISE Grant worth approximately \$24.8-million
- Total Project costs are *conceptually* estimated to be approximately \$60-\$80-million



Questions?



**BURLINGTON
WINOOSKI
BRIDGE**



<https://burlingtonwinooskibridge.vtransprojects.vermont.gov/>

