Process/Schedule

**PHASE 1**

**STEP 1**
AWARENESS AND OPPORTUNITY
Identifying values, issues, and opportunities
- Steering Committee Meeting
- Stakeholder Group Meetings
- Mobility Fair
- MetroQuest Survey

**COMMUNITY ENGAGEMENT**

**STEP 2**
CRITERIA AND INITIAL CONCEPTS
Exploring and evaluating design alternatives
- Steering Committee Meeting
- Stakeholder Group Meetings
- Design Charrette

**STEP 3**
REFINEMENT AND REINFORCEMENT
Selecting a preferred concept
- Committee Meetings
- Steering Committee Meeting
- Community Open House

**STEP 4**
ENDORSEMENT AND ACTION
Advancing a preferred concept
- Steering Committee Meeting
- Planning Commission
- Board of Architectural Review
- City Council

**NEX PHASES**
ENGINEERING PERMITTING CONSTRUCTION

**Project Launch**
- JAN
- FEB
- MAR
- APR
- MAY
- JUN
- JUL
- AUG
- SEP
- OCT
- NEXT PHASES

**KEY**
- S Stakeholder Meetings
- C Committee Meetings
Conceptual Design Phase

Community Input → Constraints → Mobility Needs → Preferred Alternative
City Design Criteria

- Bridge is the gateway into downtown
- Maintain 25 MPH speed limit
- Two lanes – one in each direction
- Views to the mountains and of the railroad tracks should be preserved
- Innovated, entertaining design
- Separate pedestrian, vehicles, and bicycles
- Reduce the span
- Enhance the landscape elements on the approaches design
- Accent lighting to showcase the bridge
- Bike lanes 10’, pedestrian lanes, 10’ traffic lanes 11’
The Past 8 Weeks

- Held 7 Committee/Small Stakeholder Group Meetings
- Kick started coordination with Buckingham Branch Railroad
- Collected traffic data (vehicles, bikes, pedestrians)
- Launched www.belmontbridge.org
- Hosted the March 11th Mobility Summit
- Launched online engagement with Metroquest
  - Almost 900 participants
- Began environmental research and due diligence
- Began phase 1 geotechnical work
- Completed field survey
Charlottesville Speaks

1,000 participants

30,000 individual data points

900 written comments
What We’ve Heard
Common Themes and Key Takeaways

• Design a functional, integrated design
• Improve connectivity – emphasis on relationship between downtown and neighborhoods
• Design focus on multimodal functionality and safety
• Create safe bike and pedestrian facilities
• Include improved, safe street crossings – calm traffic to reduce travel speed
• Improve intersections and approaches (traffic functions, bike/pedestrian safety, aesthetics)
• Create safer environment under bridge
• Create opportunities for landscaping and public spaces
• Parking is a critical issue for a few people, but not the general public
Required vertical railroad clearance: 23’ from top of high rail
Minimum vertical clearance over Avon Street and Water Street: 14.5’
Budget: $23 million

No piers (bridge supports) within railroad right-of-way
Existing intersection touchpoints
Underpass and at-grade determined not-feasible
Steering Committee Outcomes
Parking

Interim and Long-Term
Diversified Parking Strategy

Interim and Longer-Term
Considerations

• Parking demand in vicinity of downtown is increasing
• The agreed upon short bridge span eliminates the surface parking under the existing bridge
• Efforts are being made to increase parking supply through structured facilities (parking decks), surface lots, and on-street
• Estimates suggest that 2/3 of the parkers under the bridge are municipal employees
• Construction of the bridge will last an estimated 2-year duration creating a need for an interim parking demand strategy
Parking Strategy - Interim

- Managing parking demand through organized participation programs (city)
  - Explore incentives to walk, ride, carpool, transit
  - Investigate the practicality of leveraging the existing municipal fleet for daily commute of employees
  - Expand parking voucher program

- Advance the development of an off-site park and ride lot
  - Coordinate with feeder bus service that increases headways during peak periods
  - Provide guaranteed ride home provisions (vouchers for taxi and share ride providers for infrequent evening activities that occur after transit service has ceased)

- Leverage existing City parking investments
  - Assuming a settlement at the Water Street deck, apportion some of the available spaces for municipal parking

- Leverage existing private surface lots
  - Inventory existing private parking facilities near downtown
  - Investigate negotiated rates for mass quantities of parking and incorporate in the existing employee voucher program

- Temporary off-site parking
  - Identify vacant lots in the nearby environs for use as temporary parking
    - Coordinate with the bridge contractor to ensure their employees are parking offsite and enforce
    - Monitor nearby neighborhoods for parking encroachment concerns during the construction period

- Communicate the diversity of options directly to employees, monitor, and amend as needed
Long-Term Strategy

- **Market Street Deck**
  - Size the future Market Street deck to accommodate increasing demand and consider apportionment for city use
  - Minimize impacts to intersection operations
    - Identify optimum ingress and egress locations and design to minimize queuing of vehicles
    - Consider optimum ways to reduce stacking at ingress locations
  - Investigate the greatest value for choice parkers in the Water Street and existing Market Street deck (@ City Hall)

- **Maximize On-Street Parking Supply**
  - The addition of on-street parking in the areas south of the railroad (with any amendments to the street network happening in conjunction with the bridge replacement as well as when incremental development occurs

- **Monitor and parking in the Belmont Neighborhood**
  - Consider district parking requirements to ensure residents maintain priority

- **Enforce parking requirements**
  - New development south of the railroad should “self-park) and include bike parking accommodations
Typical Sections

Cars, Bikes, and Pedestrians
BRIDGE CROSS SECTION
PROTECTED OPTION

10' SIDEWALK
7' BIKE LANE
3' BUFFER
11' TRAVEL LANE
11' TRAVEL LANE
3' BUFFER
7' BIKE LANE
10' SIDEWALK
Intersections
Traffic, Safety, Bikes, and Pedestrians
Performance Measures

Vehicle Delay
This measure reflects intersection performance based on how long it takes an approaching vehicle to enter and pass through the intersection or turn onto another route.

Vehicle Stacking
This measure reflects intersection performance based on the length of vehicle queues as vehicles wait to enter and exit an intersection.

Bicycle
This measure accounts for the comfort, safety, and efficiency of entering and passing through the intersection or turning onto another route by an average bicyclist.

Pedestrian
This measure accounts for the comfort, safety, and efficiency of entering and passing through the intersection or turning onto another route as a pedestrian, regardless of physical ability.
The southbound includes a left turn lane and a through-right. The bike lane is to the right of the through-right lane.
The southbound approach includes dedicated lanes for left turns, through movement, and right turns. The bike lane is to the left of the right turn lane.
9th Street @ Market Street
The northbound approach includes a dedicated left turn lane and a through-right lane. The bike lane is to the right of the through-right lane.
The northbound approach includes a dedicated lane for left turns, through movement, and right turns. The bike lane is to the left of the right turn lane.
9th Street @ Market Street

The northbound approach includes a continuous left turn lane.

Report Card:
- Traffic: ★☆☆☆☆
- Transit: ★☆☆☆☆
- Biking: ★★★★★
- Pedestrian: ★★★★★
Design Framework
Opportunities, Partnerships, Complementary Design
Steering Committee Vote

• In March, the Steering Committee voted to proceed with a short span option
• Charrette will seek ways to mitigate the loss of 53 parking spaces.
• Charrette explored multiple options based on the short span option

Short Length
• 3 spans (~80 feet)
• Most cost effective
• Parking below the bridge would be removed
Issues
Opportunities
Garrett Street Intersection

A glimpse into the future
Design Themes and Architecture

Bridge Design Detail Options
Priority Ranking

Constraints such as time, space, and money will require us to make informed decisions during the design process. Participants were asked to identify which design elements were important to them.

- **Pedestrian Facilities**: most frequently ranked and highest average ranking
- **Intersections and Approaches** and **Bicycle Facilities**: ranked a similar number of times but Intersections and Approaches usually ranked slightly higher
- **Parking**: gap between the intensity and frequency shows that while not everyone sees it as an important consideration, those that do think it’s very important

**Comment Notes**
- Many comments suggested a simple design with a focus on functionality for all travel modes, now and in the future.
Ultimately, the design process will require thoughtful consideration of various tradeoffs. Participants were asked to choose between two tradeoffs.

Should look good but the connection is more important.

Space under the bridge should be safe.

Budget constraints likely will prevent an iconic design.

Iconic doesn’t need to be highly visible.

Complement the existing aesthetics.

Aesthetically pleasing can occur with materials and attention to detail.

Complement rather than compete.
Compatibility Index

Helps determine which area (or features) of Charlottesville the bridge should be designed to be compatible with. Participants were asked to place a dot on the area from that they would like to see the bridge draw inspiration from.

Most participants placed their dots on the line between Downtown and the Surrounding Neighborhoods.

84% of the dots were placed on Downtown, Surrounding Neighborhoods, or on the line separating these areas.

Clearly indicates a preference for the design to serve as an aesthetic link between the two areas and draw inspiration from each side.
Design Elements

- Skirting
- Railings
- Fencing
- Vertical Circulation
- Piers
- Lighting
- Walls
Design Themes
Endless Options Abound... Where do you fall?

Traditional  Unique  Modern  Funky
Skirting

A design cladding that conceals the plan supports and acts as a façade for the bridge...don’t you wish the existing bridge had some?
Skirting
Endless Options Abound... Where do you fall?

Traditional  Vintage  Modern  Funky
Railings

Railings are required and can be decorative, functional or both
Railings

Endless Options Abound... Where do you fall?
Fencing

Railroad requirements suggest protection fencing *may* be required
Fencing Designs
Endless Options Abound... Where do you fall?

- Traditional
- Vintage
- Modern
- Funky
Vertical Circulation
Connections to Waters and Avon St
Vertical Circulation

Finite options...which do you prefer?

- Stairs
- Ramps
- Elevators
- Combination
Vertical Circulation

*The installation of a ramp eliminates the need for an elevator*

- Cost per Ramp Approximately $170,000 to 250,000 per Each
- Cost for Plaza Approximately $600,000 to $1,000,000
- Cost per Stair Approximately $85,000 to $125,000
- Cost per Elevator Approximately $150,000 to $300,000
Piers

The supports under the bridge will be most visible from Water and Avon Street.
Piers
Endless Options Abound... Where do you fall?

Traditional  Vintage  Modern  Funky
The bridge can include bridge deck lighting as well as decorative lighting if desired.
Lighting
Endless Options Abound... Where do you fall?

Traditional  Vintage  Modern  Funky
Walls

The areas on either side of the bridge will be vertically retained with structural walls.
Wall Designs
Endless Options Abound... Where do you fall?

Traditional  Vintage  Modern  Funky
Issues
Discussion & Next Steps

Opportunity to look in more detail...