# Dairy Road Bridge Replacement Project

VDOT PROJECT NUMBER: U000-104-365, UPC 118295 FEDERAL PROJECT NUMBER: STP-5104(326)



# Frequently Asked Questions ("FAQs")

# **Project Need**

# 1. What's wrong with the current bridge?

The Dairy Road Bridge over Route 250 Bypass was originally constructed 72 years ago in 1953. Historically, bridges built during this period of time were designed for a 50-year life expectancy. The most recent bridge inspection report provided to the City of Charlottesville, dated March 6, 2025, classified the overall condition of the bridge as "poor." The bridge has exceeded its original design life, and any lower condition of the bridge will require more frequent monitoring, further load restrictions, and/or corrective actions to be taken.

# 2. Is the current bridge safe to drive on now?

Yes. The bridge is required by FHWA to be inspected every 2 years by a licensed Professional Engineer. It was last inspected in March 2025 and is on a 12-month inspection cycle. While heavier loads are restricted from the bridge, it is safe for small trucks and passenger vehicles.

# **Cost and Funding**

# 1. How much will this project cost? Who is paying for the project?

The current project is estimated to cost \$12,620,000, inclusive of engineering and construction. The City of Charlottesville is a recipient of a "State of Good Repair" (SGR) program grant from VDOT, which will use a combination of state and federal funds to complete the project. Project scopes for the SGR program are established to preserve, reconstruct, or replace damaged or deteriorated elements in the most practical and cost-effective manner and include measures (materials, technologies or details) to mitigate future deterioration.

# 2. Can we make enhancements to the bridge with the SGR funds?

No. Costs associated with additional scope elements beyond the recommended bridge repair/ replacement are not reimbursable from the SGR program and would be the responsibility of the City of Charlottesville.

# **Plan and Alternatives**

1. How will the current bridge be replaced?

The current bridge will be closed to traffic and then the structure and foundations will be demolished. New foundations, supports, and bridge structure will be constructed.

# 2. So the bridge will be completely closed during construction? How long will it take to open the new bridge?

Yes – construction will require a total closure of the current bridge. It's expected to be closed for 12-14 months while the existing bridge is demolished and a new bridge constructed in its place.

## 3. Can the bridge be built in phases to keep it partially open during construction?

A phased construction approach has been investigated for feasibility. This would allow for keeping one lane open and signalizing movement across the bridge with temporary traffic signals. The cycle length necessary to allow vehicles to cross the one lane bridge in the phased construction option was estimated to be upwards of a 4+ minute cycle length (or wait time) to allow each individual approaching roadway adequate time to safely traverse the work zone. Additionally, at times of peak traffic demand for vehicles waiting to cross Dairy Road bridge, it is expected that the queue length of traffic waiting to cross Dairy Road bridge will back up onto Route 250 Bypass, which poses safety concerns and potential hazards for the travelling public on the bypass. Therefore, in a phased approach the travel time benefits would be minimal, create safety problems, and would not justify the additional cost or longer construction duration required to build the bridge in this method.

The phased construction approach was also reviewed from a structural and foundation approach, in which a section of the existing Dairy Road bridge would be demolished to construct a section of the new proposed Dairy Road bridge adjacent to the existing. Additional heavier loads from the new construction would have adverse effects on the nearby existing foundations, potentially causing instability of the existing Dairy Road bridge in the phased condition. Costs to stabilize and monitor the existing Dairy Road bridge in the phased condition could be incurred, making the phased construction option more expensive than full closure of the bridge.

# 4. Can a new bridge be built to the side of the current bridge so that the current bridge can remain open until the new bridge is complete?

While possible, the option to either side has considerable drawbacks that offset the convenience to the public. Both are more expensive and/or more impactful to adjacent properties. Building a new bridge to the west would cause significant impacts to the private property at the northwest corner of the bridge and require the 250 off-ramp to be completely reconstructed due to its uphill grade, both of which would result in a significantly more expensive project. Building a new bridge to the east would require considerably more roadway approach work, would remove the pedestrian bridge the City completed in 2017, and could even impact Dominion's overhead transmission line tower – all of which would add significantly to the project's overall cost.

Given the state and federal funding from the SGR program is fixed, cost increases would be the responsibility of the City of Charlottesville, redirecting funding from other City programs, and delaying the project while funds are identified – which further increases the overall costs as inflation continues upwards pressure on construction costs.

# 5. I've heard of Accelerated Bridge Construction (ABC) where bridges can be built nearby and then slid into place to reduce the duration of the roadway closure. Is this an option for Dairy Road?

Accelerated Bridge Construction (ABC) utilizes prefabricated bridge elements to minimize typical issues associated with conventional construction, such as prolonged construction time, disruption to traffic, and project safety. Constructing the Dairy Road bridge using ABC methods to erect the bridge faster will likely add an additional 20- 30 % to the overall construction cost of this local bridge. As a rule of thumb, ABC methods are cost effective for bridges that carry a high volume of average daily traffic (ADT), such as an interstate corridor, where closures will incur a high user cost to the travelling public. It should also be noted that ABC methods do not mean accelerated bridge design. Time for design and fabrication of bridge elements will be extended beyond that of a conventional bridge project. This additional time is imperative to ensure that complex elements and ABC procedures are carefully planned and ready for execution in the field. Considering the added cost and schedule impacts, using ABC methods is not the most practical choice for this project.

# **Detours**

### 1. How long will the bridge be closed?

The bridge is anticipated to be closed for 12-14 months to allow for demolition of the existing bridge and construction of a new bridge in its place.

### 2. How will I navigate the area with Dairy Road closed?

The City of Charlottesville has developed official detour routes that will be signed for the duration of construction. The routes were analyzed and selected to minimize inconvenience to the traveling public. However, the general public may choose any alternative route at their convenience. Maps of the signed detours are included in this brochure. They are as follows:

- Southbound Dairy Road: Take Meadowbrook Heights Road south, turn right onto the 250-Bypass westbound, turn right on Hydraulic Road, use the roundabout at Hillsdale Drive to make a u-turn, turn left onto 250-Bypass eastbound, exit to Dairy Road.
- Northbound Dairy Road: Take Gentry Lane to the 250-Bypass eastbound on ramp to 250-Bypass eastbound, exit to Rugby Ave, turn left on Rugby Ave, turn left onto the 250-Bypass westbound on-ramp, follow the 250-Bypass and turn right onto Meadowbrook Heights Road.

### 3. What will the City do to address traffic on the detour routes?

During construction activities, the City will perform the following temporary improvements along the proposed detour routes to help minimize the impacts of traffic:

- Install a temporary traffic signal at the intersection of Rugby Avenue and the US-250 Bypass eastbound off-ramp to help facilitate traffic flow through this intersection
- Review and adjust traffic signal timings along the detour routes while the detour is in place.

The City will continue to monitor traffic conditions on the detour route during construction and will consider additional improvements, as needed.

#### 4. Will there be other roadway closures during construction?

Yes, bridge construction activities will require the closure of the Route 250 Bypass for short-term activities. This will only occur when absolutely necessary for bridge demolition and construction activities and will be limited to nights and limited weekends.

# **Construction Impacts**

#### 1. Will the existing pedestrian bridge remain open during construction?

Yes, the pedestrian bridge will remain open during construction, except for short-term closures as bridge construction activities dictate the closure of the bridge for the imminent safety of pedestrians/cyclists.

#### 2. What time of day will construction be done? Daytime? Nighttime?

Most activities will occur during the daytime. However, to limit the impact on traffic operations on Route 250, some activities will occur overnight.

#### 3. How will noise be abated during construction?

The construction will be bound by the City of Charlottesville's noise ordinance (City Code Section 16). Construction activities are exempt from the daytime (6:00am to 10:00pm) prohibition on noise set forth in city code Section 16-8(b). The contractor will generally be required to comply with nighttime (10:00pm to 6:00am) noise ordinance requirements.

#### 4. What effect will the bridge construction have on emergency services?

Public Works has begun coordination with City police, fire, and the Charlottesville-Albemarle Rescue Squad to ensure their awareness of the closure. Public Works will work closely with each to notify them of the exact timing and duration of closures prior to and during construction.

## 5. What will happen with the CAT bus route that uses Dairy Road?

Public Works has begun coordination with CAT regarding the operations of the Route 9, which uses Dairy Road. CAT is working on an alternative route and will communicate in advance of and during construction with system patrons of the route changes.