

West Main Bridge

Keeping OUR Community Connected **Project**

Luray Virginia

Age: 80 years, *expected life of bridge 40-50 yrs*

Date Built: 1934

Built By: Virginia Department of Transportation

Number of Previous Bridges at this Site: 3 documented (1 steel, 2 wooden)

Average Daily Vehicle Trips: 6,600 (VDOT-2012)

Average Daily Pedestrian Trips: 100+

Federal Bridge Sufficiency Rating: 32.3 out of 100 (50 requires action by VDOT)

Bridge Facts

Bridge Description

Three span, reinforced concrete bridge deck atop 6 reinforced concrete "tee" beams with a six foot sidewalk on each side, post & rail-style railing

Number of Significant Repairs: 5 in the records since 1976

Load Rating: 30 tons (Operational Rating for Vehicles)

Length: 105.97 feet

Total Width: 47.90 feet

Travel Area Width: 34.12 feet (non-standard; does not allow parking)

Bridge Deck Area: 5,076.04 square feet

Skew Angle to Street: 29 degrees

Estimated Weight:

Bridge Deck	400 tons	400 tons
Tee Beams (6)	25 tons each	150 tons
Piers & Footings (2)	100 tons each	200 tons
Abutments (2)	50 tons each	100 tons
Sidewalks (2)	50 tons each	100 tons
Railings (2)	<u>45 tons each</u>	<u>90 tons</u>
TOTAL	2,080,000 pounds!	1,040 tons

Sewer Line in the East Abutment:

6 inch line from north side of West Main Street

Water Line:

8 inch main on the south side that supplies all of western Luray

Electric: one decorative pole light at each corner (upgraded from the originals) plus added electrical circuits for special events, no through-circuits on the bridge

Communications:

4 conduits for telephone lines on the south side of the bridge

Abutments: quarried limestone from the previous steel bridge with concrete overlays added

Greenway Trail Deck on Western Abutment:

Designed by Racey Engineering, Built by Barber Construction in 2005-2006 and funded by the Luray Rotary Club

Proposed New Bridge Design

Similar to current look and size!

- Two Span Steel Beams with a poured-in-place reinforced concrete deck
- New single in-stream pier
- New abutment seats behind the existing abutments
- Two sidewalks and a similar railing with integrated electric conduits
- Water main pipe-around, and additional conduits for power and communications
- Greenway trail and walking bridge will be replaced and upgraded
- Estimated weight of new bridge and all listed components: **600 tons**

West Main Bridge Project

Planning and Prep Dates: 2013-2015

Construction Dates: 2016

West Main Street will be closed in necessary areas for staging and safety during construction.

Town of Luray

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