

MAIN BLACK BRIDGE, MONTMORENCY COUNTY, MI



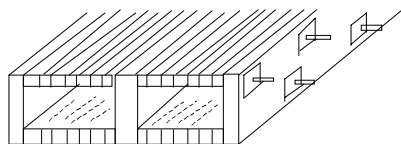
DESIGN TYPE: STRESSED BOXBEAM
YEAR BUILT: 1995
DESIGN ENGINEER: SUNDBERG, CARLSON &
ASSOCIATES
INSTALLED BY: CORDES CONSTRUCTION
SPANS OVER: BLACK RIVER
LOCATION: NW¼ OF SEC. 21 T32N R1E

FROM JUNCTION OF M-33 AND COUNTY ROAD 622 (8 MILES NORTH OF ATLANTA), GO WEST ON CR 622 ABOUT 4 MILES, TURN NORTH ON EAST BRANCH ROAD, GO ABOUT 4 MILES TO BLUE LAKES ROAD, GO WEST ABOUT 1¾ MILES TO BRIDGE (WHICH IS ABOUT 1½ MILES PAST BARBER BRIDGE).



Main Black Bridge

BRIDGE GEOMETRY



STRESSED TIMBER BOX

Spans:	1	Load Rating:	HS-25
Number of Lanes:	2	Average Daily Traffic:	100
Total Length (feet):	40	Abutment Material:	Timber Piling
Out-to-Out Width (feet):	30	Deck Lumber Tally:	21.4 MBF
Curb-to-Curb Width:	28	Superstructure Cost:	\$35,000
Chord Lamina Size:	2" x 7"	Superstructure Cost/ft ² :	\$29
Glu-Lam Beam Size:	5" x 24"	Total Project Cost:	\$198,000
slight skew			

BRIDGE MATERIALS

DECK

Species: Red Pine decks; SYP web
 Quantity: 19.5 MBF
 Preservative: Creosote
 Stressing Rods: 36

SUBSTRUCTURE

Type: Timber Piling
 Species: Pine
 Preservative: Creosote

GUIDERAILS

Species: 7" x 11" Douglas Fir
 Preservative: Creosote

WEARING SURFACE

Asphalt (3") over geotextile fabric

LOCAL IMPACT

This bridge and Barber Bridge, its sister bridge just a short distance east on the same road, is a major connecting route between the village of Atlanta area and Pigeon River County State Forest area. The new bridges allow for better logging access, quicker fire control access and better recreation access in both directions.

BRIDGE PERFORMANCE

Latest visual examination of the bridge by the road commission manager indicated no apparent structural problems with the bridge or sub-structure. Early after construction, it was noted that the stressing rods were loose and were re-stressed. There have been complaints from local citizens about creosote dripping into the stream.

FABRICATION & ERECTION

This bridge was fabricated by a contractor into panels. As noted, the bridge rods were loose after construction and later it was determined that the bridge was overstressed, thus causing the nuts to slip in the rods. It was also found out that some of the nuts were defective and replaced.

FUNDING SOURCES

USDA Forest Service: \$30,000

Other Sources: \$168,000

LOCAL CONTACT

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WIT Program Proposal Number: NA-39-92

Federal Grant Identifier: NA-92-0179

COOPERATING AGENCIES



USDA FOREST SERVICE
 NORTHEASTERN AREA
 STATE & PRIVATE FORESTRY

Huron Pines RC&D

