

IL 100/106 Alternatives Comparison Matrix (April 2017)^A

Alternatives Proposed to be Carried Forward are highlighted in BLACK

Category	Measure	1	2A	2B	3 ^B	4A	4B	4C	4C/D	4D	5A	5B	3 & 4B
New Right-of-Way	Acres	0	85	70	60	30	10	20	50	65	95	95	70
Estimate of Probable Construction Cost	Current (Millions of Dollars) \$ M	\$ -	\$100.5M	\$110.0M	\$23.5M	\$73.5M	\$64.0M	\$70.5M	N/A ^C	\$97.0M	\$129.5M	\$103.5M	\$87.5M
Main Bridge Length	Feet	0	2,260	2,630	0	2,810	2,800	2,830	N/A	2,800	2,340	1,640	2,800
New Roadway Length	Miles	0	2.6	2.0	5.6	0.9	0.4	0.8	N/A	1.8	3.4	3.3	6.0
Adverse Travel (Florence)	User Delay Cost (\$/yr.)	0	\$74.1K	\$37.9K	\$720.1K	\$ -	During Construction	\$ -	N/A	\$29.0K	\$132.7K	\$136.8K	During Construction
Adverse Travel (Through Travel)	User Delay Cost (\$/yr.)	0	\$129.3K	\$14.4K	\$1,537K	\$ -	During Construction	\$ -	N/A	\$ -	\$ -	\$ -	During Construction
Constructability ^D	Subjective (described)	-	2	2	4	1	1	1	1	3	4	4	1
Forest Land	Acres		66.9	97.7	0.6	18.1	21.9	17.0	38.4	84.4	24.87	30.3	22.5
Wetlands	Acres		16.9	20.7	11.4	16.8	16.2	15.2	16.0	14.0	10.0	7.3	27.6
Permanent River/Stream Crossings	Each		1	1	1	1	1	1	1	1	1	1	2
Floodplain	Acres		57.0	50.0	0.0	28.0	30.7	27.4	25.5	41.5	33.2	38.3	30.7
Prime Farmland	Acres		47.6	35.4	40.4	13.5	4.4	10.6	22.4	22.1	55.2	61.8	44.8
Inventoried Natural Areas and Park Space ^E	Acres		0.0	0.0	0.0	1.3	1.4	1.5	1.0	1.5	0.0	0.0	1.4
T&E Species Areas of Occurrences ^F	Present - #		1	2	0	4	4	3	3	4	1	1	4
Bald Eagle Sightings ^G	Present - #		1	1	0	1	1	0	0	0	0	0	1
Community (Section 4(f))	Listed Properties - Each		0	0	1	0	0	0	0	1	0	0	1
Cultural (Section 106)	Listed Properties - Each		0	0	0	0	0	0	0	0	0	0	0
Displacements (Residential)	Each		0	0	0	0	0	0	0	1	5	6	0
Displacements (Commercial)	Each		0	0	0	1	0	0	0	0	0	0	0
Displacements (Industrial)	Each		0	0	0	0	0	0	0	0	0	0	0
Divided Parcels	Each		6	6	4	4	0	0	6	5	7	9	5
Hazardous Waste Sites	Each		0	0	0	0	0	0	0	0	0	0	0

- A. Impacts Assessment included the mainline alternative only and were based on designs from March 2017. The preliminary screening was done using a database of information available in April 2017. This table does not include an assessment of any connector roadways.
- B. Alternative 3 was evaluated and will not move forward because it does not meet the Purpose and Need.
- C. Not Applicable. Alternative 4C/D was not one of the original proposed designs and was not evaluated by the same criteria as the other alternatives. Alternative 4C/D is a compromise between two designs and was evaluated for environmental impacts. Alternatives that were not chosen to be carried forward after the Citizen Advisory Group (CAG) meetings were not re-evaluated for cost.
- D. "Constructability" refers to impacts during construction, subjectively rated, with 1 being the most impacts and 4 being the least impacts.
- E. Acres coincident with the Florence Bridge Bed (Illinois Natural Area Inventory Site #1658), identified as Category VI. for an unusual concentration of flora or fauna and high quality streams.
- F. Zones around a point of occurrence.
- G. Bald Eagle sightings are a record in the Illinois Natural History Survey (INHS) database, but are not indicative of geospatially located nests. They are included in the alternatives matrix with respect to the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

Color-Code Key

Relatively high benefit or low impact
Relatively moderate benefit or moderate impact
Relatively low benefit or high impact

IL 100/106 Proposed Alternatives to be Carried Forward Comparison Matrix (March 2018)^A

Category	Measure	4A	4C	4C/D	5B
New Right-of-Way	Acres	27.3	32.9	45.8	90.1
Estimate of Probable Construction Cost	Current (Millions of Dollars) \$ M	\$70.6M	\$77.6M	\$77.3M	\$72.1M
Main Bridge Length	Feet	3,165	3,167	3,167	1,816
New Roadway Length	Miles	0.8	1.0	1.2	3.6
Adverse Travel (Florence)	User Delay Cost (\$/yr.)	\$11.5K	\$17.2K	\$20.1K	\$136.8K
Adverse Travel (Through Travel)	User Delay Cost (\$/yr.)	\$ -	\$ -	\$ -	\$ -
Constructability ^B	Subjective (described)	1	1	1	4
Forest Land ^C	Acres	16.9	30.4	38.4	26.9
Wetlands ^D	Acres	14.8	13.4	12.4	5.2
Wet Floodplain Forest	Acres	6.3	8.2	12.0	5.0
Wet Forbland	Acres	3.2	3.9	0.0	0.0
Wet Meadow	Acres	4.7	1.4	0.4	0.2
Wetland Pond	Acres	0.6	0.0	0.0	0.0
Floodplain ^E	Acres	26.2	25.4	25.5	41.1
Prime Farmland ^F	Acres	13.0	7.3	14.9	59.0
Inventoried Natural Areas ^G	Acres	3.0	3.3	2.9	0.0
Potential Mussels Disturbance ^H	Present - #	215	270	86	197
Decurrent False Aster ^I	Present - #	4,210	3,170	230	0
Displacements (Residential) ^J	Each	0	0	0	6
Displacements (Commercial)	Each	1	0	0	0
Parcels with Right-of-Way Impacts	Each	7	9	9	31
Divided Parcels	Each	2	1	1	9

A. Evaluation includes the mainline alternative only and is based on a preliminary screening. The screening was done using refined preliminary designs from November 2017.

B. "Constructability" refers to impacts during construction, subjectively rated, with 1 being the most impacts and 4 being the least impacts.

C. Forest Land evaluated by aerial photographs.

D. Wetlands evaluated by field verified delineations (Illinois Natural Heritage Survey (INHS), July and August, 2017). Wetland totals may not sum due to rounding.

E. Floodplains evaluated by the 2016 files maintained by the Federal Emergency Management Agency (FEMA).

F. Prime Farmland evaluated by available data from previous studies.

G. Inventoried Natural Areas are from the Illinois Heritage Database (IHD, 2016).

H. Potential Mussel Disturbance reports the number of mussels found and relocated during an INHS survey (August 2017). No state of federal listed threatened or endangered species were found.

I. Decurrent False Aster reports the number of plants assessed by the INHS as surveyed (June 2017). The quantities were calculated under the assumption that the plants are dispersed equally throughout the habitat boundaries.

J. Displacements are based on available photographs and parcel boundaries from Pike and Scott counties (2016).

Color-Code Key

Relatively high benefit or low impact
Relatively moderate benefit or moderate impact
Relatively low benefit or high impact