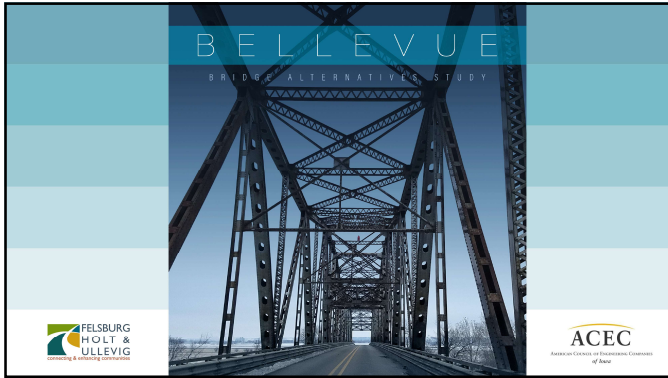








WHY IT MATTERS TO YOU...

Iowa has interstate river borders, internal major rivers and smaller rivers throughout the state. The bridges that connect roadways over these rivers have a finite service life.

Iowa Major Rivers

BELLEVUE BRIDGE STUDY

Project Location

STUDY AREA

Slide 4

GL1 Is there a specific map you'd like to use of Iowa?

Gillian Lao, 2026-08-03T19:30:58.265

JP1 0 Yes, use a map similar to Minnesota but for Iowa.

Label the Missouri, the Mississippi, the Des Moines river, the Cedar river.

Here is a link to something it should look like

<https://www.teacherspayteachers.com/Product/Map-of-major-rivers>

Joshua Palik, 2026-08-23T15:49:02.275

JP2 Mark, Iowa has done plenty of interstate river border bridge studies. This statement may come across wrong.

I'd consider re-wording to :

....throughout the state where similar principals have been applied such as what we will discuss today with this bridge study.

Joshua Palik, 2026-08-23T15:51:23.519

STUDY TIMELINE



STEERING COMMITTEE

Bellevue Bridge Commission | City of Bellevue, NE | Metropolitan Area Planning Agency (Omaha MPO) | Felsburg Holt & Ullevig | RDG Planning & Design



STAKEHOLDER REPRESENTATIVES

Bellevue Bridge Commission	City of Bellevue, NE	Sarpy County, NE
Mills County, IA	Pottawattamie County, IA	Nebraska DOT
Iowa DOT	Metropolitan Area Planning Agency	Offutt Air Force Base
Various Older Towne business leaders	MidAmerican Energy	Google
Bunge	SIRE	M&P Missouri River Levee District
Papio Missouri River NRD		



Slide 9

JP1 Whats with the different colors on the boxes? Does that mean the level of engagement they had in the project?

Joshua Palik, 2026-08-23T15:53:02.418







1

The current bridge is inadequate to serve heavier industrial uses which have larger axles trucks that are overweight.

Impact of the bridge closure would be greater for Old Towne businesses than the industries in Iowa

2



Focus Group Interview Takeaways

3

If bicycle and pedestrian use were prioritized on the bridge or on a new bridge, a better trail connection would be necessary along Bunge Avenue

4

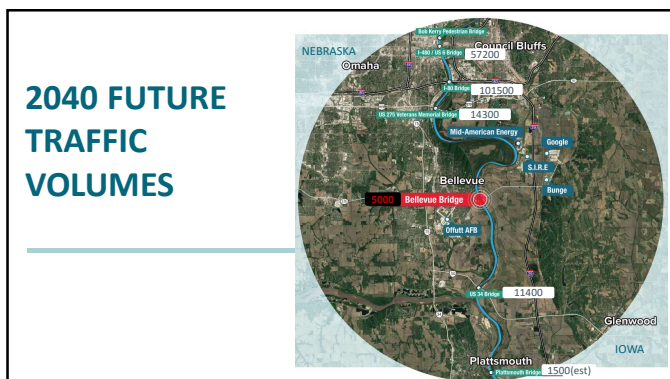
The bridge is a convenience for employees at businesses in Iowa to visit restaurants in Bellevue, however, is generally not the primary point of access for employees commuting to work

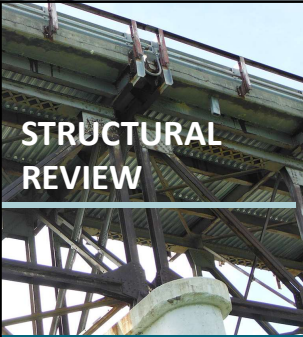




Focus Group Interview Takeaways







STRUCTURAL REVIEW

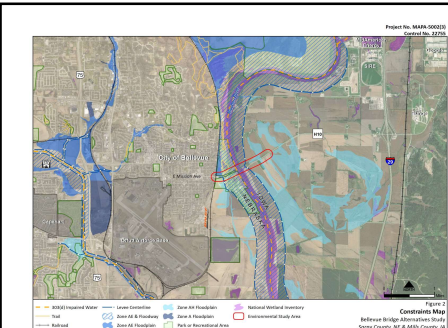
**National Bridge Inventory
Methodology –
Fair Condition Index of 53.6**

- ✓ Inspection Reports
- ✓ Existing Bridge Drawings
- ✓ Maintenance Records
- ✓ Critical Findings Reports
- ✓ Correspondence
- ✓ Posting History
- ✓ Original Construction Documents
- ✓ Visual Inspection
- ✓ FHU Independent Condition Assessment

Remaining Useful Life

- ✓ 20 to 25 years
- ✓ Controlled by bridge deck condition
- ✓ 14 years into ~40 year service life





Project No. 2024-000000
Sheet No. 0001

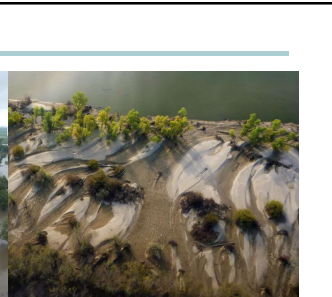
Figure 2
Constraints Map
Bedford Bridge Alternatives Study
Bedford County, NE & Mills County, IA

RESOURCE OR PERMIT	NEW BRIDGE
Wetlands / Waters of the U.S.	Major impacts
U.S. Army Corps of Engineers Section 408 Permit	Individual Permit w/ mitigation
Floodplains and Floodway	Encroachment Floodplain Development Permit w/ Possible CUDMR
Recreational Resources Section 4(f) Permit	Minor impacts 4(f) determination w/ mitigation
U.S. Coast Guard Section 9 Bridge Permit	Section 9 Permit
U.S. Army Corps of Engineers Section 10 Permit	Section 10 Permit
U.S. Army Corps of Engineers Section 408 Level Permit	Section 408 Permit
Threatened & Endangered Species	Potential to impact listed species
Hazardous Materials	Waste Materials Management



Environmental Review

2011 Flood Event





Environmental Review

2018 Wetland Delineation

- ✓ Flood damage had naturally repaired
- ✓ Native vegetation reestablished
- ✓ Soils washed away or mechanically removed
- ✓ Over 20 acres of wetlands
- ✓ Likely Individual Permit from USACE
- ✓ Still evidence of flooding

Environmental Review

2019 Flood Event

Environmental Review

TEAM INTRODUCTION

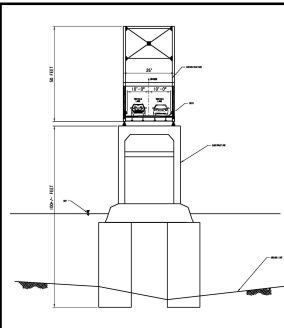
Joshua Palik, PE



BRIDGE ALTERNATIVES

1. Preservation & maintenance
2. Demolition
3. New bridge construction
4. Bridge conversion to a recreational trail facility (both lanes)
5. Upgrade bridge superstructure for a separate pedestrian and bicycle lane and truck traffic
6. Expansion of piers / twin bridges





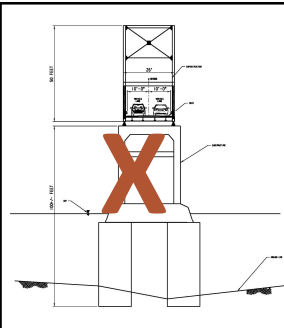
\$ COST ESTIMATE

(2018 Dollars): \$12.5 Million
(2040 Dollars): \$17.0 Million

*assumes \$570,000 annual spend,
2.5% annual inflation



Preservation & Maintenance

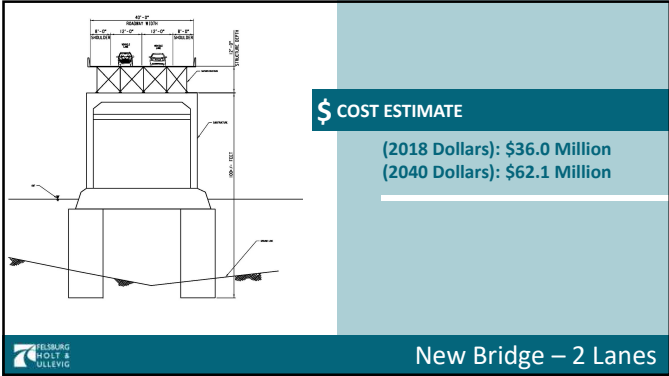


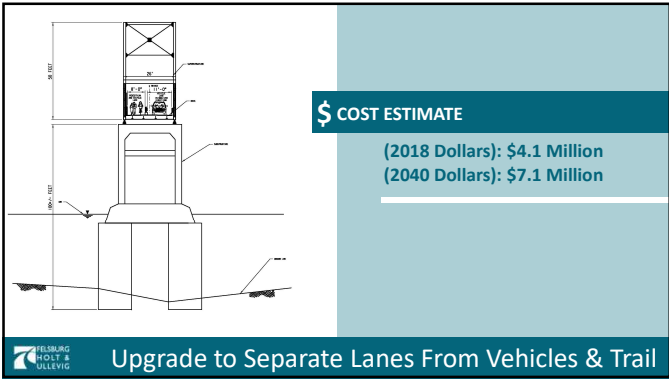
\$ COST ESTIMATE

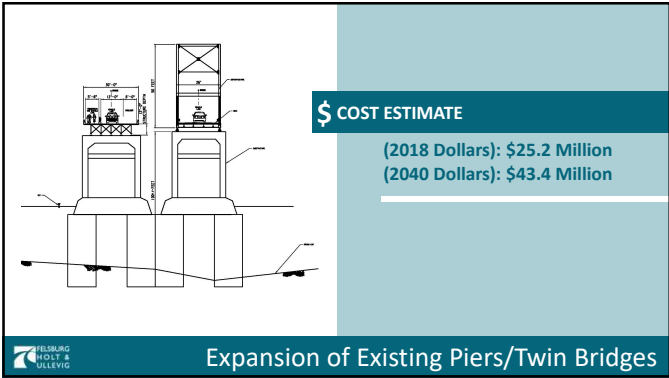
(2018 Dollars): \$5.0 Million
(2040 Dollars): \$8.6 Million

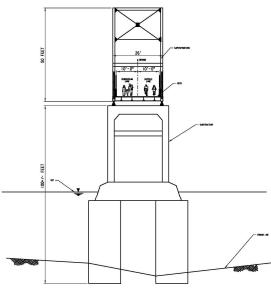


Demolition









\$ COST ESTIMATE

(2018 Dollars): \$3.9 Million
(2040 Dollars): \$6.7 Million

**Conversion to Recreational Trail Facility**

Alternative Name	Preservation & Maintenance	Demolition	New Bridge	Conversion to Recreational Trail Facility	Expansion: Separate Lanes for Vehicle and Trail	Expansion: Additional Piers / Twin Connections
Preservation & Maintenance						
Preserve and Maintain + Demolition	\$17.0mm	\$8.6mm	\$0.0mm	\$0.0mm	\$0.0mm	\$0.0mm
Preserve and Maintain + Demolition + New Bridge	\$17.0mm	\$8.6mm	\$62.1mm	\$0.0mm	\$0.0mm	\$0.0mm
Preserve and Maintain + Demolition + Trail Conversion	\$17.0mm	\$8.6mm	\$0.0mm	\$6.8mm	\$0.0mm	\$0.0mm
Preserve and Maintain + New Bridge + Trail Conversion	\$17.0mm	\$8.6mm	\$62.1mm	\$6.8mm	\$0.0mm	\$0.0mm
Preserve and Maintain + Separate Lanes for Trail/Vehicle	\$17.0mm	\$7.2mm	\$0.0mm	\$0.0mm	\$4.0mm	\$0.0mm
Preserve and Maintain + Expansion of Piers / Twin Bridges	\$17.0mm	\$0.0mm	\$0.0mm	\$0.0mm	\$0.0mm	\$43.4mm
Demolition						
Demolition	\$0.0mm	\$8.6mm	\$0.0mm	\$0.0mm	\$0.0mm	\$0.0mm
New Bridge						
New Bridge	\$0.0mm	\$0.0mm	\$62.1mm	\$0.0mm	\$0.0mm	\$0.0mm
Conversion to Recreational Trail Facility						
Conversion to Recreational Trail Facility	\$0.0mm	\$0.0mm	\$0.0mm	\$6.8mm	\$0.0mm	\$0.0mm
Expansion: Separate Lanes for Vehicle and Trail						
Expansion: Separate Lanes for Vehicle and Trail	\$0.0mm	\$0.0mm	\$0.0mm	\$0.0mm	\$4.0mm	\$0.0mm
Expansion: Additional Piers / Twin Connections						
Expansion: Additional Piers / Twin Connections	\$0.0mm	\$0.0mm	\$0.0mm	\$0.0mm	\$0.0mm	\$43.4mm

Potential Impacts to...

1. Traffic Operations
2. Life Cycle Cost Analysis
3. Environmental Analysis
4. Market (Economic) Analysis
5. Bridge Alternatives Evaluation
6. Benefit-Cost Analysis

**Alternatives Evaluation Matrix**





Preserve and Maintain + Demolition
\$17.0mm + \$8.6mm = **\$25.6mm**

Preserve and Maintain + Demolition + New Bridge
\$17.0mm + \$8.6mm + \$62.1mm = **\$87.7mm**

Preserve and Maintain + Trail Conversion
\$17.0mm + \$6.8mm = **\$23.8mm**

Preserve and Maintain + New Bridge + Trail Conversion
\$17.0mm + \$62.1mm + \$6.8mm = **\$85.9mm**

X Preserve and Maintain + Separate Lanes for Trail/Vehicle
\$17.0mm + \$7.2mm = **\$24.2mm**

X Preserve and Maintain + Expansion of Piers / Twin Bridges
\$17.0mm + \$43.4mm = **\$60.4mm**

**Decision Tree** (Total Costs are in 2040 Dollars)

Slide 28

JP1 This is the wrong image. Go to the report and pull the correct image, its pages 28 of the report, it has a pedestrian lane and a bicycle lane on the image.

Joshua Palik, 2026-08-23T16:24:28.252

Potential Bellevue Bridge

2,200 ft Long
40 ft Roadway Width
2 Lanes
\$62 mil

ADJACENT BRIDGES



US 34

Highway 34, Plattsmouth Bridge
10 miles South of Bellevue Bridge
3,276 ft Long
89 ft Wide
4 Lanes
18 Spans, 70 ft above the river
7,700 VPD
\$112 mil (2014)



US 275

Highway 275, South Omaha Bridge
6 miles North of Bellevue Bridge
4,300 ft Long
87 ft Wide
4 Lanes
9,600 VPD
\$88 mil (2010)

FEHLBURG
HOLT &
ULLEVIG

Bridge Alternatives – New Bridge

Mills County Iowa –Trail Plan



FEHLBURG
HOLT &
ULLEVIG



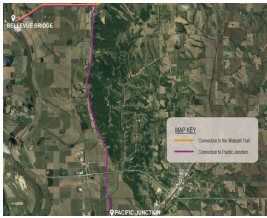
I-29 Bridge to Wabash Trail Connection Option

5' concrete shoulders both sides of road - includes grading	48,000	LF	\$35.00	\$1,680,000
Signage	1	LS	\$10,000.00	\$10,000
Pavement Markings -	1	LS	\$1,500.00	\$1,500
Seeding	22.00	AC	\$3,000.00	\$66,000
			Subtotal	\$1,757,500.00

FEHLBURG
HOLT &
ULLEVIG

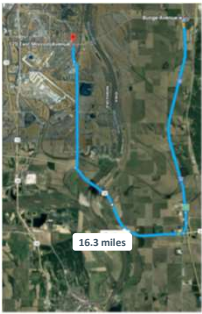
Trail Connection < I-29 Destinations

11



I-29 Bridge to Pacific Junction Option					
5' concrete shoulders both sides of road - includes grading	65,300	LF	\$35.00		\$2,285,500
Signage	1	LS	\$10,000.00		\$10,000
Pavement Markings -	1	LS	\$1,500.00		\$1,500
Seeding	30.00	AC	\$3,000.00		\$90,000
			Subtotal		\$2,387,000.00

**Trail Connection < I-29 Destinations**



**Benefit Cost Analysis (2040-2060)**

SUMMARY OF ALTERNATIVES

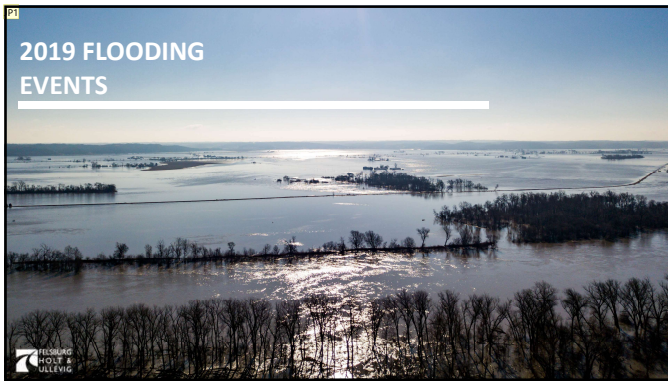
Alternative	Estimated Cost of Construction	Total Costs*	Benefits	Net Benefits	Benefit-Cost Ratio
1: Demolition	\$8.6M	\$10.8M	\$0	(\$10.8M)	0.00
2: Conversion to Rec Trail (Bike Ped)	\$6.7M	\$7.5M	\$2.1M	(\$5.4M)	0.28
3a: New Bridge, Convert Old to BP	\$68.7M**	\$73.7M	\$223.5M	\$150M	3.03
3b: New Bridge, Demolish Old	\$70.6M***	\$74.7M	\$223.5M	\$149M	2.99

*Total costs include the estimated cost of construction, demolition or conversion if applicable, maintenance, carbon and time costs, and lost revenue

**Includes estimated \$6.7M to convert the existing bridge to a bike/pedestrian facility

***Includes \$8.6M demolition cost of old bridge

**Benefit Cost Analysis (2040-2060)**



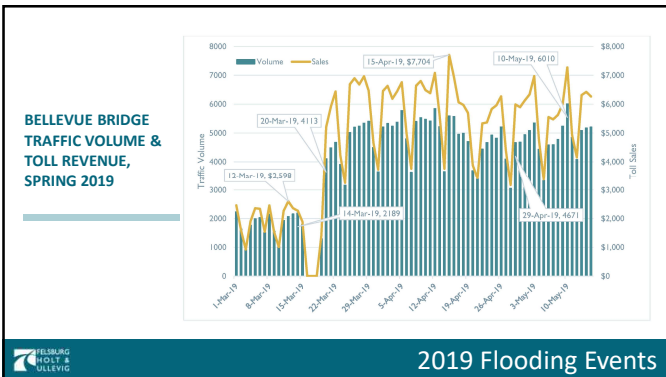


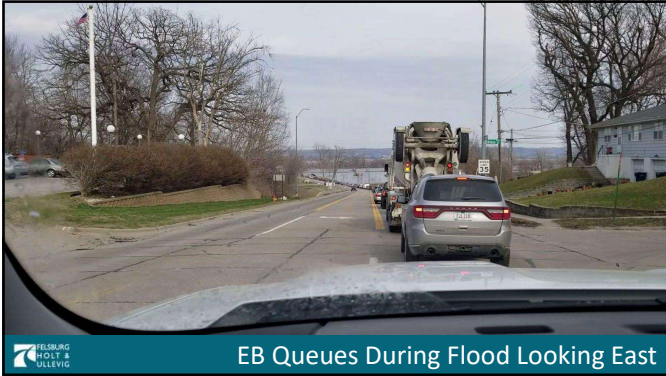


JP1 Mark you start back up here.
Joshua Palik, 2026-08-23T16:38:39.633



	Bridge/Roadway	First Closure	Reopened	Second Closure	Reopened	Comments
BRIDGES	I-80 Bridge					Remained Open
	US 275 Bridge					Remained Open
	Bellevue Bridge	16-Mar-19	19-Mar-19	-	-	
	US 34 Bridge	16-Mar-19	24-May-19	28-May-19	28-Jun-19	Single-lane Open
	Plattsmouth Toll Bridge	16-Mar-19	16-Apr-19	30-May-19	19-Jun-19	
	Nebraska City Bridge	15-Mar-19	10-May-19	28-May-19	-	Remains Closed
	Brownville Bridge	27-Mar-19	-	-	-	Remains Closed
ROADWAYS	Rulo Bridge	17-Mar-19	-	-	-	Remains Closed
	I-29 (I-680W to I-680E)	-	-	29-May-19	17-Jun-19	
	I-29 (CB to I-680W)	14-Mar-19	23-Mar-19	28-May-19	12-Jun-19	
	I-29 (US 34 to CB)	15-Mar-19	23-Mar-19	-	-	
	I-29 (MO to US 34)	15-Mar-19	9-May-19	28-May-19	18-Jun-19	Multiple Ramps Remain Closed
	I-680 (Omaha to I-29)	13-Mar-19	2-Apr-19	28-May-19	12-Jun-19	
	I-80 Bridge	16-Mar-19	19-Mar-19			
	US 275 Bridge	16-Mar-19	24-May-19	28-May-19	28-Jun-19	
*CB Council Bluffs, MO to Joseph, MO **Data were collected from news reports and state DOT websites ***Table is current as of the writing of this report (July 2019)						









[illegible][illegible]

Approximately \$2 million to Sarpy County local roads in 2019/2020

Approximately \$800k to Bellevue local roads in 2019/2020

15% of projections of allocations go to local roads
85% of allocation projections go to State highway system

FEDERAL GRANTS

USDOT Infra Grant (need at least a 20% local match)

- **\$1.5 billion in grants**
- Competitive process across the nation
- National or regional economic vitality
- Potential for Innovation
- Must show a performance and accountability program objective
- Must show project readiness
- Must show a benefit-cost analysis

PortMiami Truck Gate Innovation, Miami-Dade County, \$7,000,000 - to replace two outdated cargo terminal gates at the Port of Miami with expanded and automated truck gates.

Heartland Expressway Junction 162A / US 385 to Alliance, Nebraska Department of Transportation, \$18,263,743 - to convert an approximately 14.6-mile segment of US 385 from the existing two-lane highway into a four-lane divided highway.

Ohio River Rail Improvement Project, Ohio Rail Development Commission, \$18,250,600 - to improve approximately 30 miles of rail line along the banks of the Ohio River in Jefferson and Belmont Counties, Ohio.

FHWA's Highway Bridge Program Grant (need at least a 20% local match)

- **\$225 million for highway bridge replacement and rehabilitation projects**
- Competitive process across 25 states
- Must demonstrate cost savings through bundling (2 or more similar bridge projects)
- **Only State DOTs may apply**

\$ OTHER FUNDING OPTIONS

Increase Tolls

\$1.00 increase in tolls for next 20 years would increase revenues an additional \$22 million (used an ADT of 3,000 assuming that some future users would find alternate routes once toll is raised)

Bond Issues

Financing option to accelerate project delivery. Can be paired with toll revenue or local match. Requires long-term repayment strategy.

Fund Support From

Trail Users Groups Fundraisers
Papior Missouri River NRD

P1

DESIGN RFP WILL BE ISSUED BY NEBRASKA DOT IN 2026

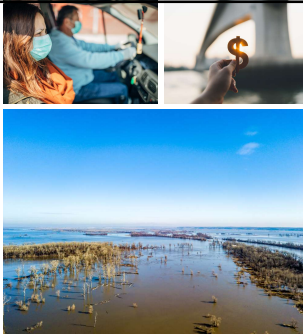
- City of Bellevue will sponsor project
- City agreed to take over bridge responsibility from Bridge Commission
- Nebraska DOT Local Assistance Division
- 80/20 funding match, no future tolls
- The Existing Bridge. . .
 - Is expected to be demolished
 - Trail advocates were successful lobbying integrated bike/ped accommodations

FELSBURG
HOLT &
ULLEVIG

Next Steps

TAKEAWAYS AND LESSONS LEARNED

FOR IOWA



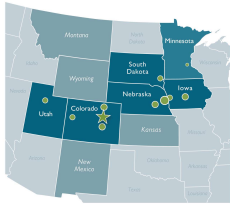
FELSBURG
HOLT &
ULLEVIG

CORE PURPOSE

At FHU we are engineers, scientists and planners who are passionate about **transportation**...it's been our driving force for more than 40 years.

We bring fresh ideas to mobility, infrastructure and environmental challenges, to provide innovative next-generation solutions to connect and enhance communities.

CONNECTING & ENHANCING COMMUNITIES



FELSBURG
HOLT &
ULLEVIG

Felsburg Holt & Ullevig

Slide 52

JP1 Fix the formatting on this page with the bullets under the existing bridge

Joshua Palik, 2026-08-23T16:31:20.252

WHAT DO WE DO?



Felsburg Holt & Ullevig

QUESTIONS?



Mark.Meisinger@fhueng.com & Joshua.Palik@fhueng.com

JP1 Reorient this slide so the top row is :

Traffic Operations & Safety, Transportation Design, Structures.

Second Row is Water Resources, Transportation Planning (change from Multimodal), Environmental

Bottom Row:

Construction Management, Transit Services, Technology & Energy

Joshua Palik, 2026-08-23T16:35:40.848