

October 29, 2014

# Central & Eastern Corridor Alternatives Analysis for Toston Structures



# Meeting Goals

- Review project history
- Present findings from Alternatives Analysis Report
- Identify next steps in alignment decision-making process
- Garner public input
  - Oral testimony
  - Open house input
  - Comment forms

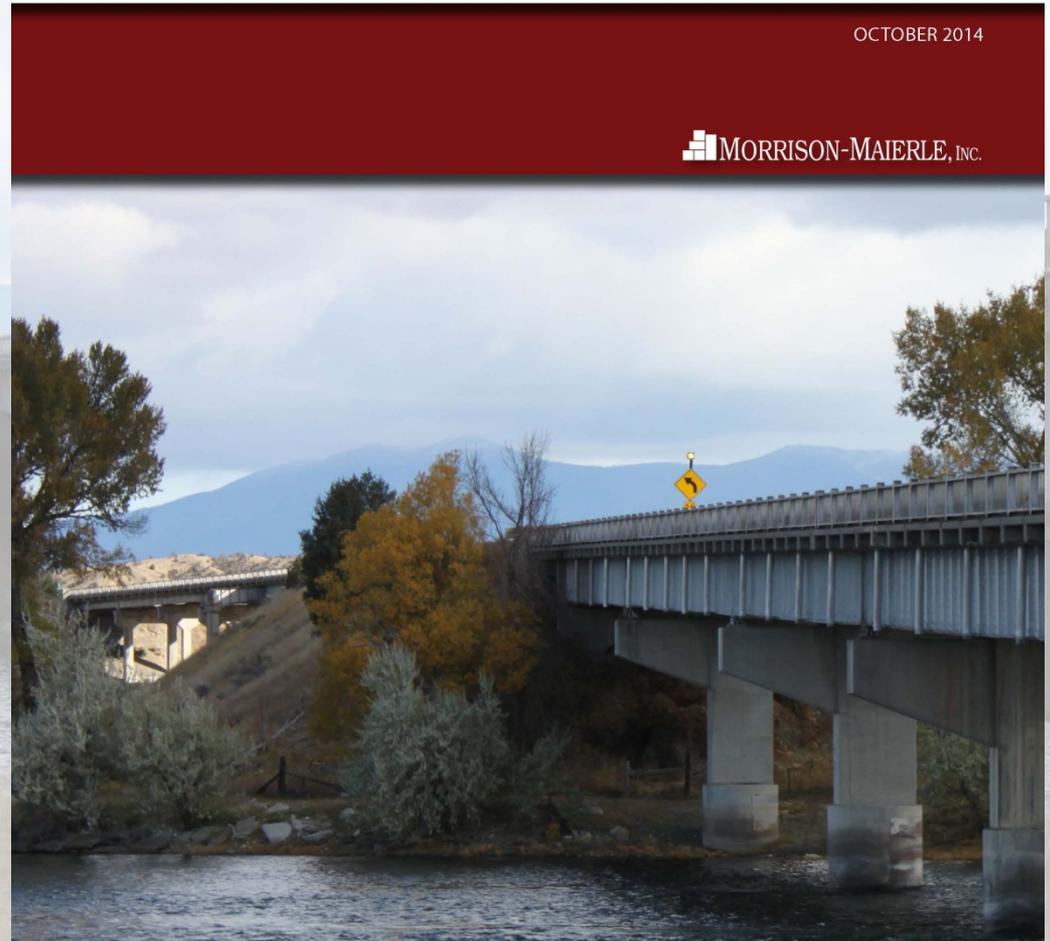


## TOSTON STRUCTURES

### ALTERNATIVES ANALYSIS REPORT

OCTOBER 2014

 MORRISON-MAIERLE, INC.

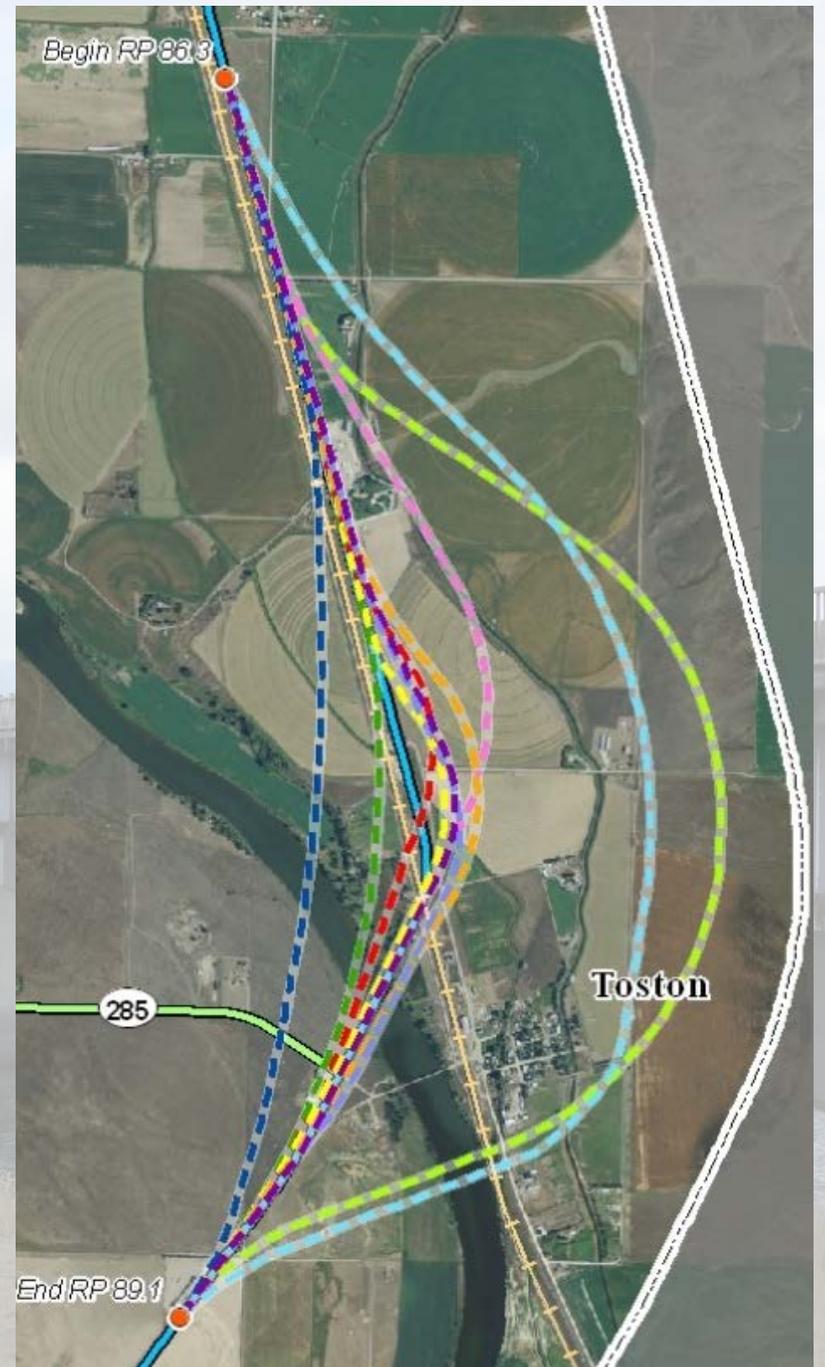


# Project Objectives

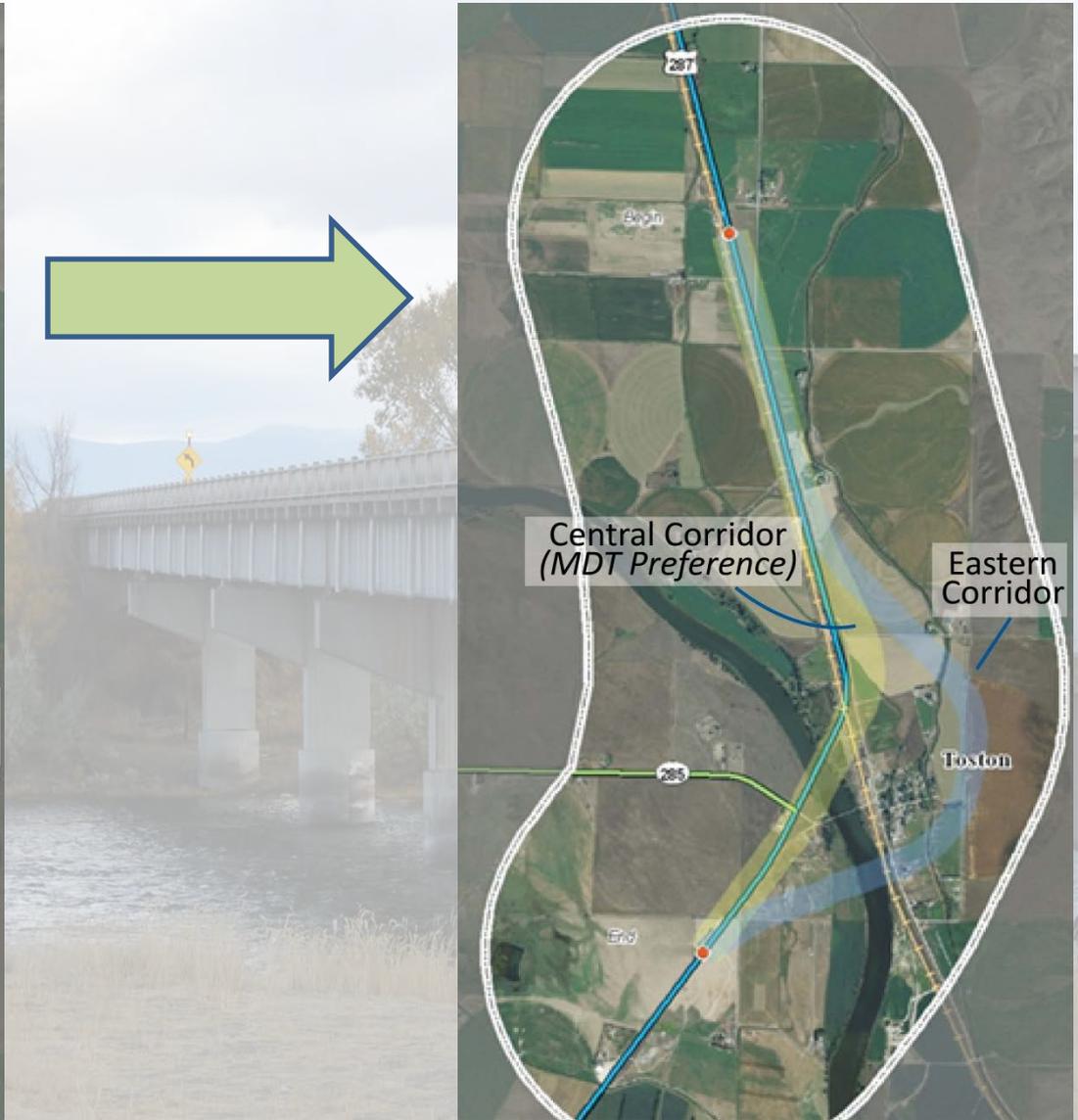
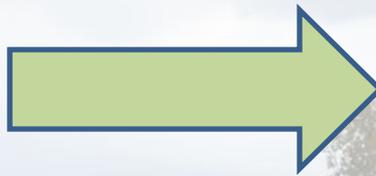
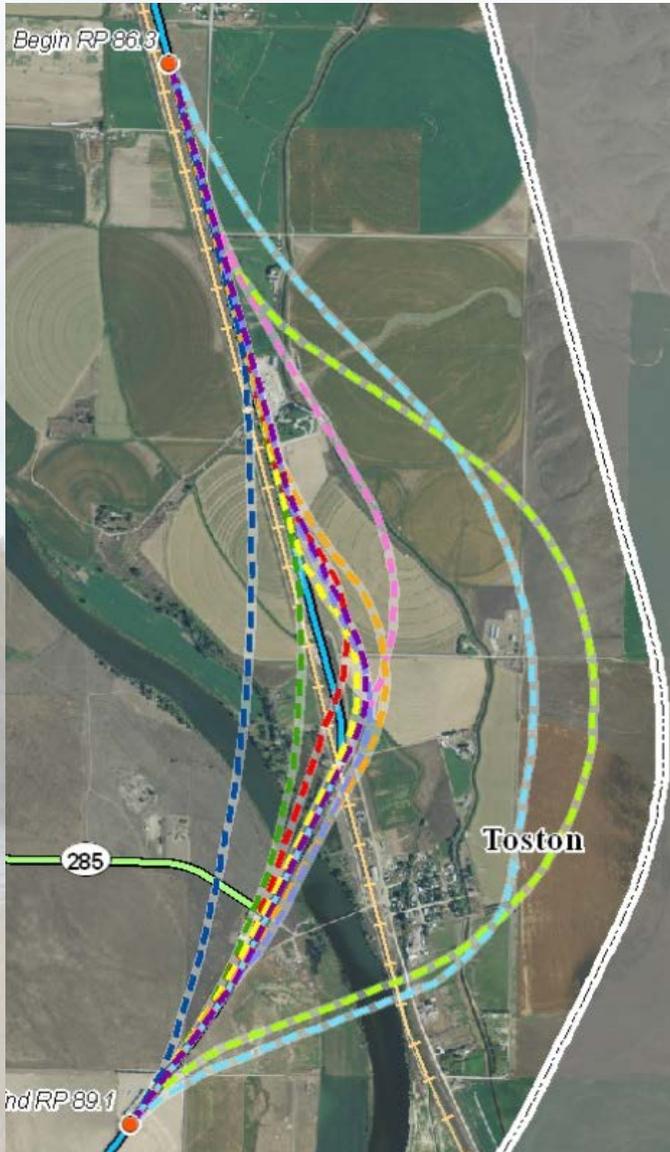
- Improve safety and operations for a wide range of vehicles
- Accommodate future traffic demands
- Meet current design standards
- Complete 4-lane improvements between Townsend-South Passing Lanes & Toston-South projects



# Corridor Alignments Considered



# Corridor Screening Results



# Public Involvement

- 2006 Environmental Assessment
- 2009 Corridor Study Initiated
  - February 2010 Public Meeting
  - October 2010 Public Meeting
  - February 2011 Public Meeting
- 2013 Phase 1 Analysis Initiated
  - November 2013 Public Meeting

2/10/2010

- 1) 20 yr vs 50 yr Bridge Design
- 2) MEET IN TOSTON FIRE HALL
- 3) School bus routes  
Mail routes
- 4) Fire Dept # Toston Bridge
- 5) Restrictions on bridge approaches

2/10/2010

- 6) Bridge # Winter Conditions

2/10/2010

- 7) Large Corridor Study Area → Helena to Three Forks
- 8) Speed Difference

APTEC

- 9) Railroad Easement to MDT - can be taken away?
- 10) Solid Waste - Dumpsters relocated to S-205
- 11) Safety of Postal Carriers
- 12) LAND USE classifications - where do they come from
- 13) Abandoned Mine Remediation

RECEIVED  
DEC 30 2013  
By SV

MASTER FILE COPY

## Citizens against the East Corridor Route for U.S. Hwy 287 For the Toston Bridge Structures

Project ID: NH 8-4(65)86 - Control Number: CN 7668

We, the undersigned Citizens, are opposed to the Montana Department of Transportation's proposed East Corridor Route for the Toston Bridge Structures on U.S. Highway 287 because:

1. It will *radically disturb* the serenity and life style of the people and the Community of Toston;
2. It will *adversely affect* family businesses and commercial operations; and
3. It will *encroach upon* productive and valuable irrigated farmland.

Sign Your Name

Print Your Name

Address and City

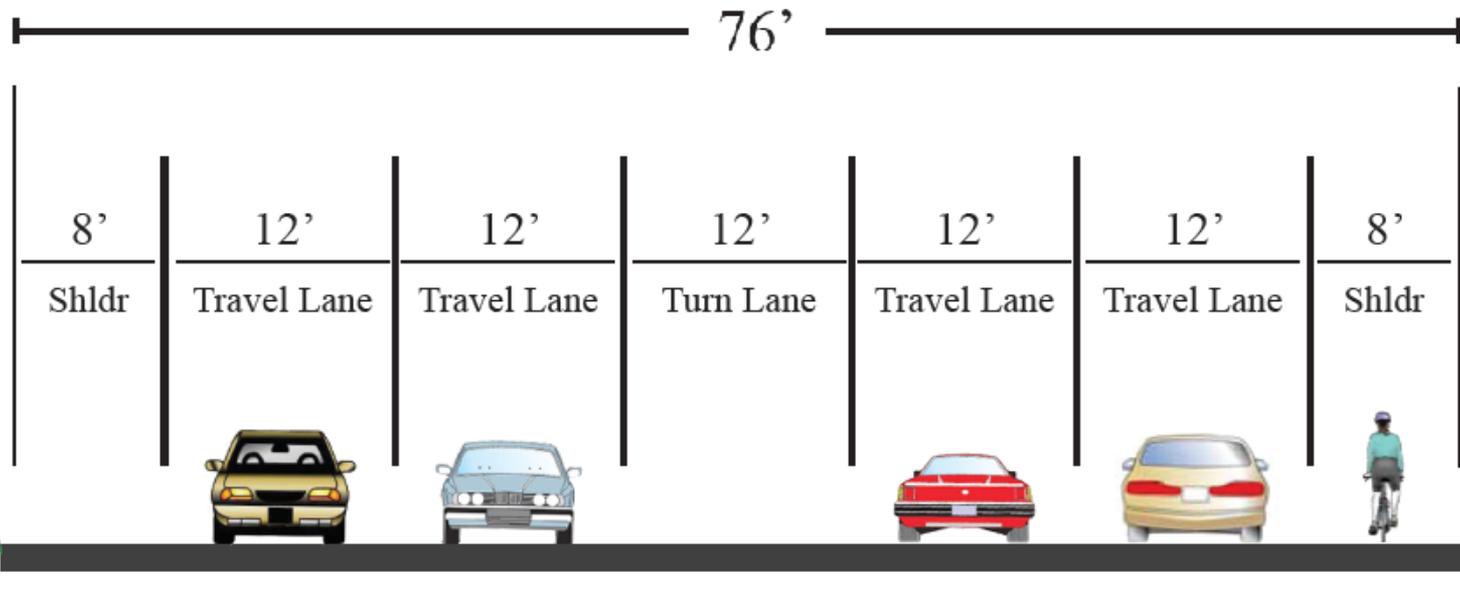
1. [Signature] [Print Name] [Address and City]

# Comments Received to-date

- Overall public support for Central Corridor
- Noise impacts
- Farm equipment crossing needs – wider shoulders
- Historic structures and private property impacts on both routes
- Local access / movement across highway
  - Turning lanes and flashing lights
  - Pedestrian and bicycle crossing
  - School bus stop safety needs
  - Whether or not to leave the existing bridge
  - Sight obstructions
- Fishing access site needs, if impacted

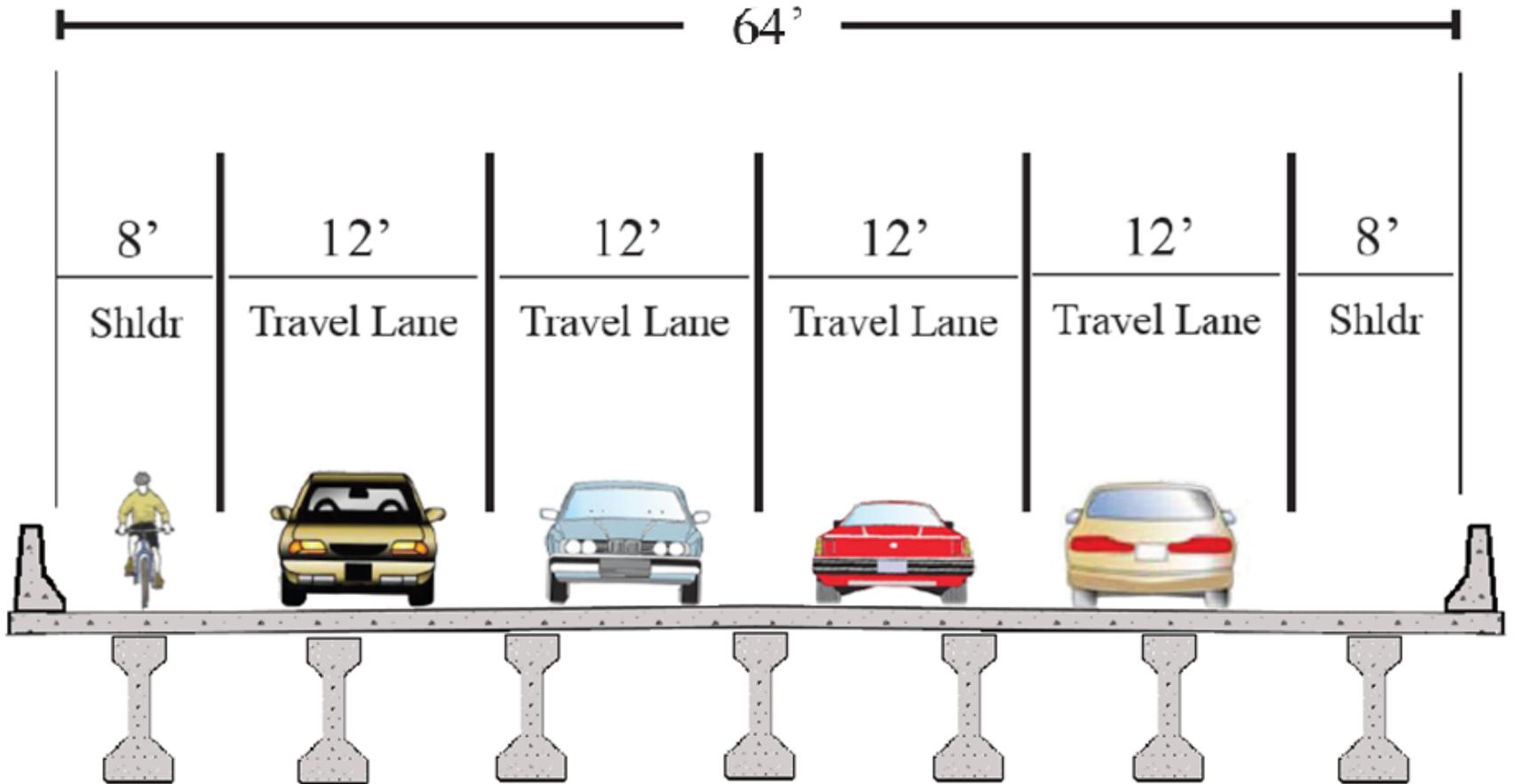


# Major Design Elements



Conceptual Roadway Typical Section

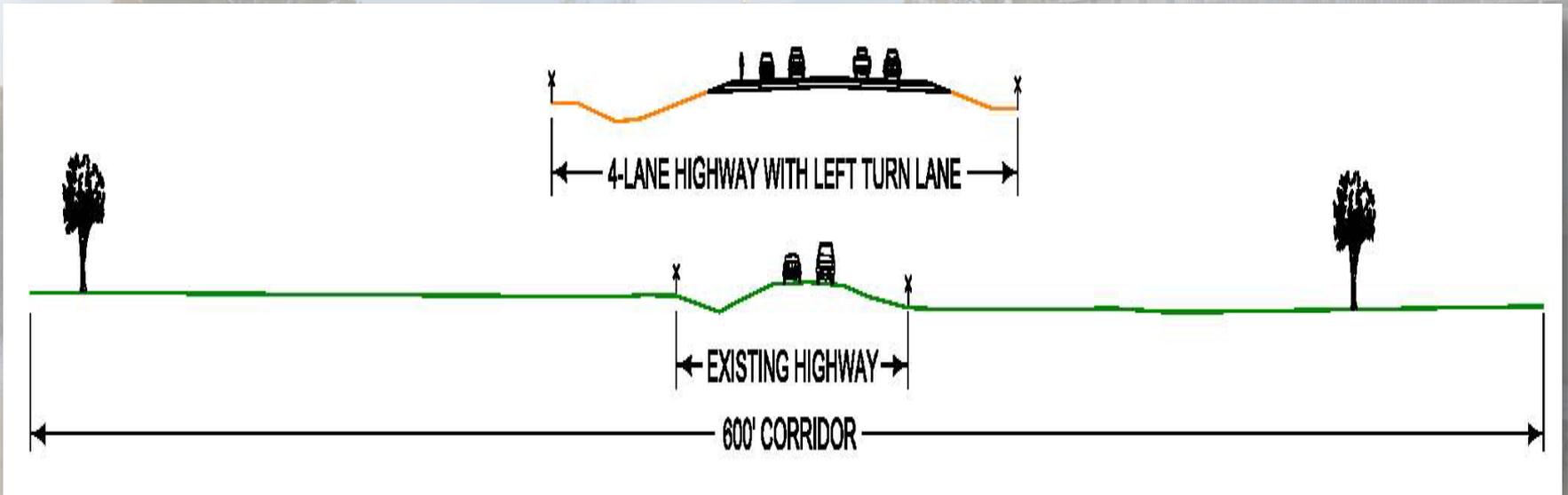
# Major Design Elements



Conceptual Bridge Typical Section

# Corridor Widths

- Widths of corridors shown at 600'
- Actual right-of-way widths will range from approximately 180' to 300', depending on height of fill



# Analysis Criteria

- Estimated Cost
- Safety elements
- Earthwork / Soils
- Traffic & Bridges
- Floodplain
- Utilities
- Environmental Impacts
- Human Impacts
  - Right-of-way
  - Noise
  - Irrigation



# Estimated Cost (2019)

- Central Corridor: \$43.9M
- Eastern Corridor: \$44.0M

## Central Corridor: Cost Estimate:

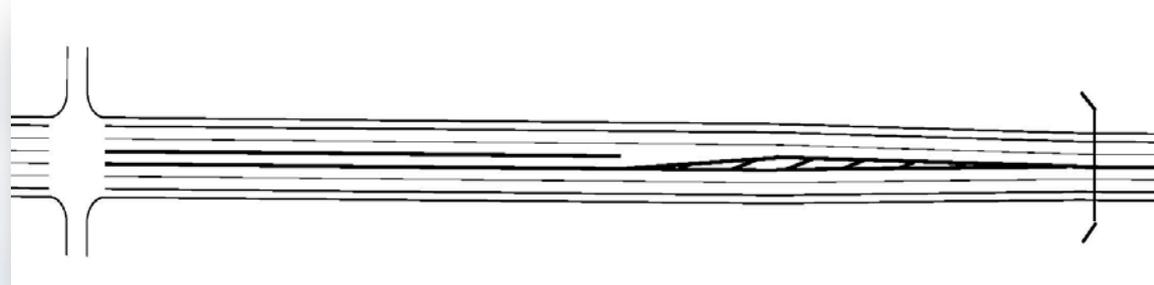
	Estimated cost	Inflation (INF)	TOTAL costs w/INF + IDC
Road Work	\$7,761,900		
New Structure	\$13,620,800		
Remove Structure	\$525,000		
Detour	\$0		
Traffic Control	\$532,500		
<b>Subtotal</b>	\$22,440,200		
Mobilization (15%)	\$3,366,000		
<b>Subtotal</b>	\$25,806,200		
Contingencies (20%)	\$5,161,200		
<b>Total CN</b>	<b><u>\$30,967,400</u></b>	<b><u>\$4,932,000</u></b>	<b><u>\$39,177,000</u></b>
<b>CE (12%)</b>	<b><u>\$3,716,100</u></b>	<b><u>\$592,000</u></b>	<b><u>\$4,701,000</u></b>
<b>TOTAL CN+CE</b>	<b><u>\$34,683,500</u></b>	<b><u>\$5,524,000</u></b>	<b><u>\$43,878,000</u></b>

## Eastern Corridor: Cost Estimate:

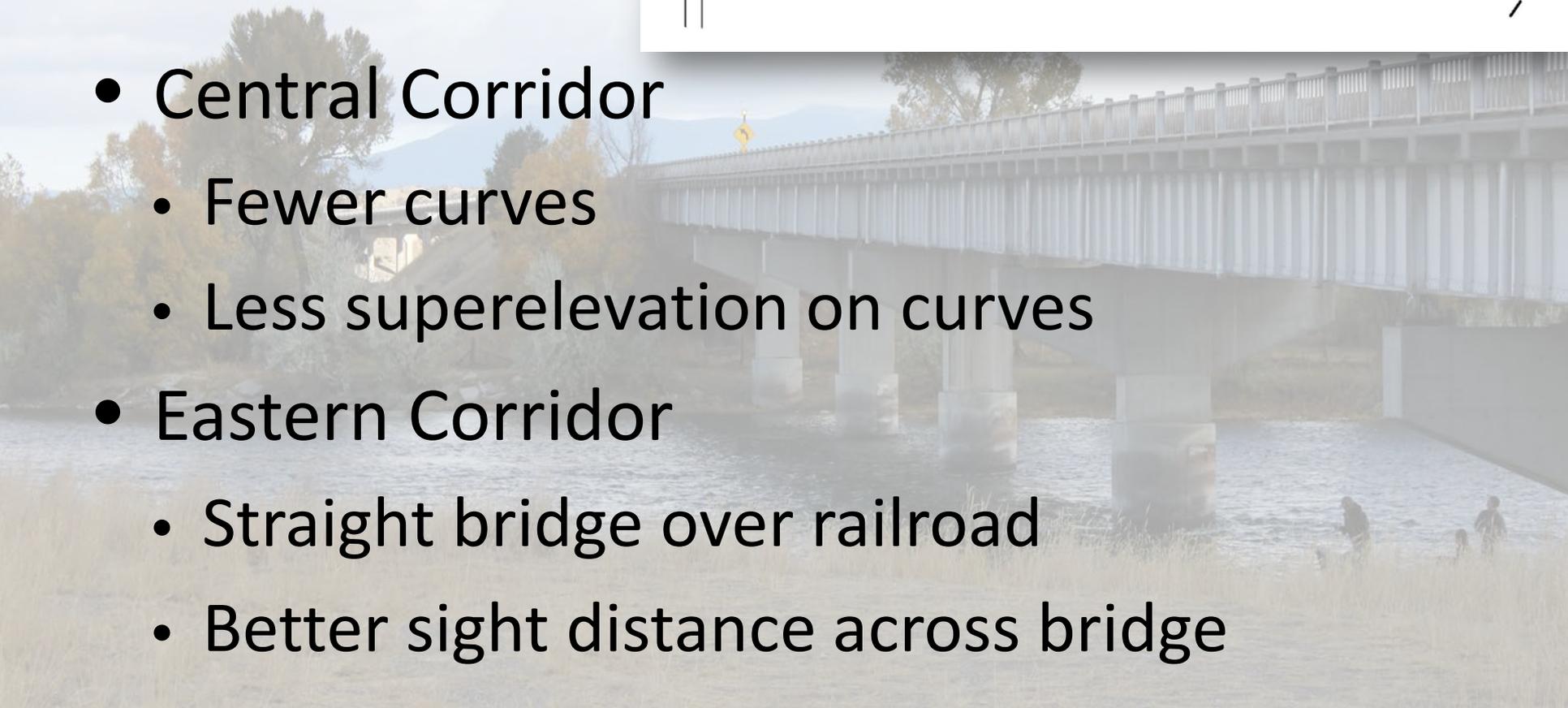
	Estimated cost	Inflation (INF)	TOTAL costs w/INF + IDC
Road Work	\$8,125,200		
New Structure	\$13,192,900		
Remove Structure	\$525,000		
Detour	\$0		
Traffic Control	\$670,700		
<b>Subtotal</b>	\$22,513,800		
Mobilization (15%)	\$3,377,100		
<b>Subtotal</b>	\$25,890,900		
Contingencies (20%)	\$5,178,200		
<b>Total CN</b>	<b><u>\$31,069,100</u></b>	<b><u>\$4,949,000</u></b>	<b><u>\$39,307,000</u></b>
<b>CE (12%)</b>	<b><u>\$3,728,300</u></b>	<b><u>\$594,000</u></b>	<b><u>\$4,717,000</u></b>
<b>TOTAL CN+CE</b>	<b><u>\$34,797,400</u></b>	<b><u>\$5,543,000</u></b>	<b><u>\$44,024,000</u></b>

# Safety elements

## Intersections away from bridges

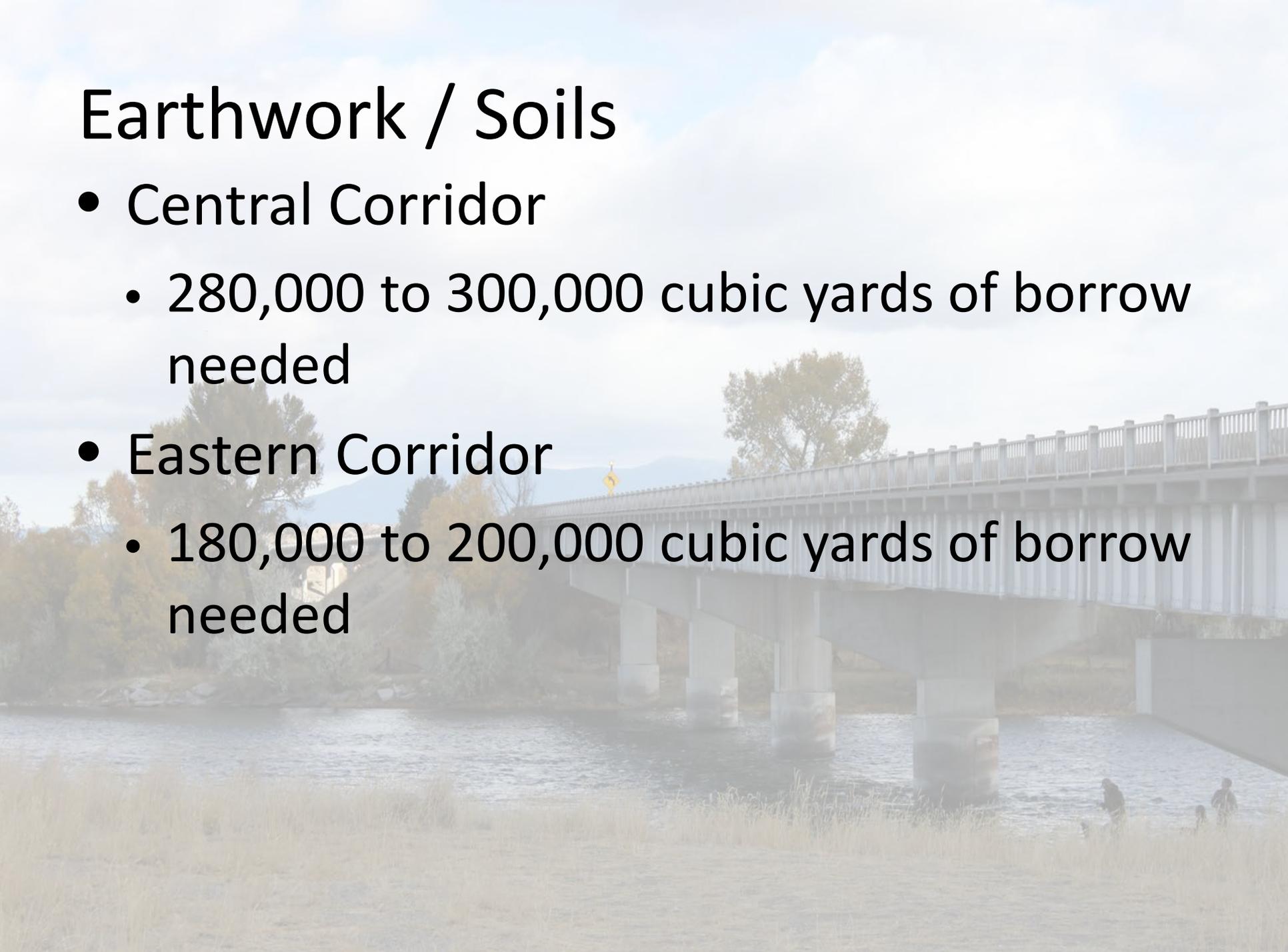


- Central Corridor
  - Fewer curves
  - Less superelevation on curves
- Eastern Corridor
  - Straight bridge over railroad
  - Better sight distance across bridge



# Earthwork / Soils

- Central Corridor
  - 280,000 to 300,000 cubic yards of borrow needed
- Eastern Corridor
  - 180,000 to 200,000 cubic yards of borrow needed



# Traffic & Bridges

- Central Corridor
  - 2 major structures
    - Missouri River
    - MRL
  - Offset from existing highway for construction
  - Lower long-term operating costs
- Eastern Corridor
  - Single straight bridge over Missouri and MRL
  - Construction well away from existing highway



# Floodplain

- Central Corridor
  - 1" drop in floodplain elevation
  - necessitates removal of existing highway bridge
- Eastern Corridor
  - 6" drop in floodplain elevation

Truss bridge remains



# Utilities

- Central Corridor
  - 31 power poles in conflict
- Eastern Corridor
  - 18 power poles in conflict
  - 100KV transmission line conflicts



Similar telephone / fiber optic conflicts

# Environmental Impacts

	<b>Central</b>	<b>Eastern</b>
Wetlands Impacts	1.0 to 1.5 acres	0.25 to 0.75 acres
Historic Sites	2	3
Fishing Access Site Impacts	1.0 to 2.0 acres	No impact
Prime Farmlands Impacts	30 to 35 acres	50 to 55 acres

# Human Impacts

	<b>Central</b>	<b>Eastern</b>
Public Opinion	Favored	Opposed
New Right-of-Way	45 to 66 acres	70 to 86 acres
Noise Impacts	0	Up to 12
Canal Crossings	1	2
Flood Irrigated Properties Impacted	0	3
Pivots Impacted	2	4
Wheel Sprinklers Impacted	1	2

# Central Corridor – Current Preference

- Pros:
  - Greatest public preference
  - Closest to existing highway, resulting in lowest overall impacts
  - Least impact to irrigated farmland
  - Improvement in safety over existing conditions
- Cons:
  - Impacts 4(f) fishing access site
  - Greater wetlands impacts



# Phase 1

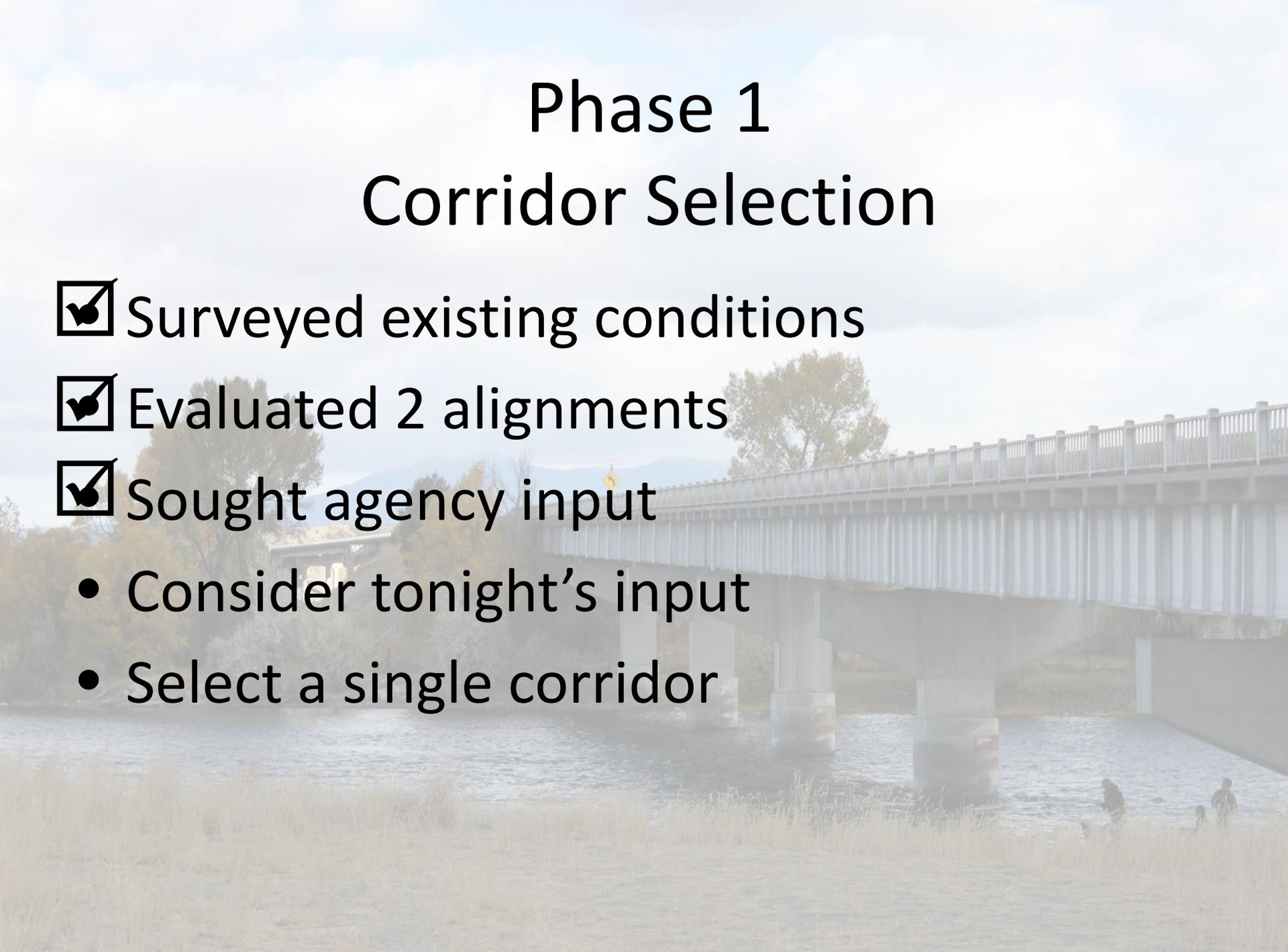
## Corridor Selection

Surveyed existing conditions

Evaluated 2 alignments

Sought agency input

- Consider tonight's input
- Select a single corridor



# Phase 2 Schedule

2016 - 2018

- Finalize Design
- Access control decisions
- Right-of-way acquisition
- Utility relocations

# Phase 3 Schedule

2019

- Begin construction (pending funding)



# Public Involvement

- Comment forms
- E-mail
- MDT website:  
**[www.mdt.mt.gov/mdt/comment\\_form.shtml](http://www.mdt.mt.gov/mdt/comment_form.shtml)**
- Future public meeting
  - Corridor selection
  - Preliminary alignment design
- Newsletter

# Questions?

Opinion, comments and concerns may also be submitted in writing at the meeting on forms provided, by mail to:

Phill Forbes, P.E.

Morrison-Maierle Project Manager

P.O. Box 6147

Helena, MT 59604

or online at:

[www.mdt.mt.gov/mdt/comment\\_form.shtml](http://www.mdt.mt.gov/mdt/comment_form.shtml)

Please indicate comments are for project UPN 7668000 and submit comments by **December 1, 2014.**

# Contact Information



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*Thank you for being here tonight!*