



## *East Dowling Road Extension & Reconstruction*



Agency TAG Meeting #6  
February 20, 2007

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## *Meeting Agenda – EDR TAG #6* *February 20, 2007*



1. Current Status of Project
2. Value Engineering Study
3. Next Steps / Schedule

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## *Current Status of Project*



- Current Authorized Budget - \$19M
- PER Cost Estimate (prior to VE Study) - \$28.6M
- DOT&PF launched VE Study to critique design and look for opportunities to reduce cost.
- DOT&PF and MOA have submitted a legislative request for additional funding for entire Dowling Road corridor (ALE to Minnesota)
- Combination of VE changes and increased funding is a likely solution to budget/cost problem

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## *Overview of VE Study*



### **Purpose of the Value Engineering Study**

- Federal, State and local highway agencies are responsible for getting the best overall project value for the taxpayer. Applying the VE process to suitable projects helps achieve this purpose.
- VE studies are made "to provide suggestions for reducing the total cost of the project and providing a project of equal or better quality."

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## Overview of VE Study



### VE Recommendations that DOT&PF plans to accept:

• Static surcharge instead of excavation	\$550K
• Eliminate bike lanes between L. Otis and Spruce	\$508K
• Eliminate mammal crossing	\$3M
• Revise paving section	\$268K
• Replace patterned concrete in medians with patterned asphalt	\$231K
• Re-use light fixtures	\$66K
• Reduce landscaping budget (max. aesthetic and privacy benefits and min. maint. costs)	\$50K
• Retain existing curbs between Lake Otis and Laurel	\$391K

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## Overview of VE Study



### VE Recommendations that DOT&PF plans to accept (cont'd):

• Modify median width/length	\$109K
• Eliminate pedestrian over-crossing	\$1.2M
• Include plumbing for future Spruce int.	-\$4K
• Access control - radio tower	-\$32K
• Close road between Laurel and Norm during construction (to min. traffic control costs)	\$425K
• Incorporate permanent erosion control measures early to reduce cost of temporary measures	<u>\$100K</u>
<b>TOTAL:</b>	<b>\$6.9M</b>

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## Overview of VE Study



### VE Recommendations that DOT&PF plans to reject:

• Use on-site material for road base	\$296K
• Lower grade for improved balance	\$250K
• Revise paving composition – acoustics	\$6K
• Remove privacy fences	\$109K
• Eliminate one of the west-bound lanes	\$589K
• Incorporate roundabout	\$142K
• Build interchange	-\$1.8M
• Access control at Norm	-\$32K

**TOTAL: \$-560K**

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## Wildlife Crossing Issues



Project Team has Considered Several Options to Address Concerns Over:

- Minimizing Moose-Vehicle Collisions
- Minimizing Wildlife Habitat Fragmentation

### 1) Separated Grade Crossing just east of Spruce

- Underpass
- Overpass

### 2) Lighting and Limited Fencing

### 3) Other Design Options

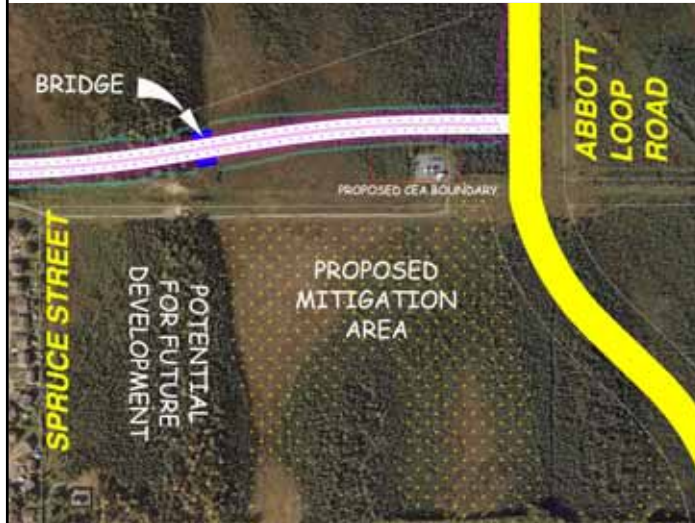
- At-Grade Crossing with Animal Detection System
- Separated Grade Crossing just west of ALE
- Separated Grade Crossing just west of substation

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### Wildlife Crossing Issues

*Grade-Separated Crossing East of Spruce  
(Underpass)*



Total Impact Footprint  
**10.3 Acres**

Wetlands: **6.7 Acres**  
(1.2 ac clearing only)

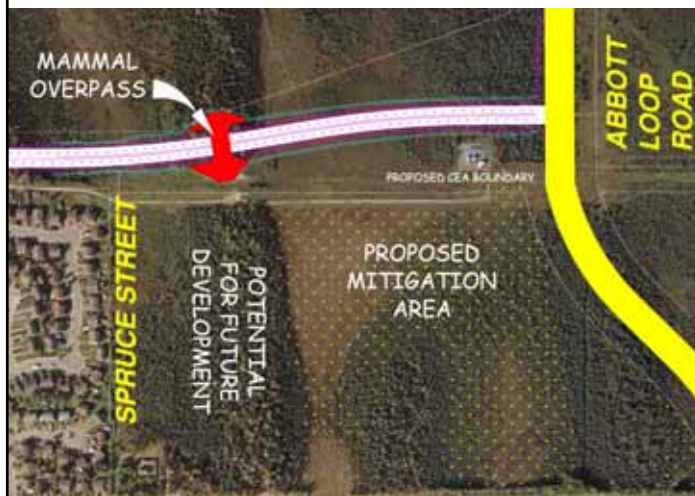
Uplands: **3.6 Acres**

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### Wildlife Crossing Issues

*Grade-Separated Crossing East of Spruce  
(Overpass)*



Total Impact Footprint  
**10.7 Acres**

Wetlands: **6.6 Acres**  
(0.9 ac clearing only)

Uplands: **4.1 Acres**

Note: Crossing conflicts with future HLB development plans and extends beyond DOT&PF ROW.

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## Wildlife Crossing Issues

*At-Grade Crossing – (DOT&PF Preferred Option)  
Lighting, Clearing, & Limited Fencing*



Total Impact  
Footprint  
**9.8 Acres**

**Wetlands: 6.2 Acres**  
(0.9 ac clearing only)

**Uplands: 3.6 Acres**

Note: This option minimizes fill in wetlands.

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## Wildlife Crossing Issues



Lighting, Clearing, and Limited Fencing (DOT&PF Preferred Option)

- Tie into ALE fencing and extend approximately 200-300 feet along EDR; taper ends of fencing; place riprap at ends of fencing to discourage moose from entering the road corridor at this location.
- Minimizes habitat fragmentation since animals are not limited to one crossing location and would be free to cross roadway all along corridor.
- Lighting and clearing of the road right-of-way has been shown to provide substantial reduction in wildlife collisions.

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## Wildlife Crossing Issues



### Other Design Options Considered

- At-Grade Crossing with Animal Detection System
  - Technology has not been shown to be reliable in testing to date
- Separated Grade Crossing just west of ALE
  - Conflicts with CEA power lines and substation
- Separated Grade Crossing just west of substation
  - Substantial wetland impacts in highest value wetlands

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## Next Steps / Schedule



- Draft EA and permit applications to USACE in late March / early April
- Coordination w/ALE Construction in Summer '07
  - Construct ALE / EDR intersection
  - Place surcharge material
  - Construct ASDRA trail re-route
- Public Meeting tentatively planned for March or April

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## Questions / Discussion



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## Proposed Mitigation Parcel



Approximately 30 Acres of Potential Wetland Mitigation  
Approximately 6 Acres\* of Direct Impact to Wetlands

\* Based on AWMP Mapping

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