Kalispell Courthouse Couplet
UPN E012000

### Appendix E PUBLIC MEETING MATERIALS



### FLATHEAD 🏓 BEACO



### **Public Meeting to Discuss Options for U.S. 93 Couplet**

Officials will discuss possible changes to section of U.S. 93 that wraps around the Flathead County Courthouse BY BEACON STAFF // JUN 22, 2016 // AP STORY, LATEST HEADLINES, NEWS & **FEATURES** 

State transportation officials are hosting a public meeting on improvement options for the section of U.S. 93 that wraps around the Flathead County Courthouse, known as the couplet.

Montana Department of Transportation officials will discuss possible changes to the road starting at 4 p.m., June 28 in Ballroom A of the Red Lion Hotel at Kalispell Center Mall. A formal presentation will begin at 6 p.m. Project team members will be available before and after the presentation to discuss key findings and eight alternative route scenarios examined during a recent traffic analysis of the project location.

Robert Peccia and Associates was hired to study the road couplet around the courthouse and the surrounding area. The firm has identified eight alternatives for the area. The alternatives include reducing Main Street to two lanes from Center Street to 13th Street; increasing the road around the courthouse couplet to two lanes on each side; keeping the couplet's current configuration and making First Avenue East a one-way northbound street and First Avenue West a one-way southbound lane; making First Avenue East a oneway northbound lane and expanding Main street into a three-lane, one-way southbound street from Center Street to 13th Street; changing First Avenue West into a one-way southbound street and expanding Main Street into a three-lane, one-way northbound street from Center Street to 12th Street; and updating Willow Glen Drive for expanded traffic from U.S. 93 to Montana 35.

#### EDITOR'S PICK

**Environmental Guard** Dogs





**PLAY 60 CHALLENGE** PHOTO GALLERY



MORE »



Drive Straight Down the M

State officials in the past have proposed widening the road around the courthouse to four lanes — two lanes on each side of the courthouse — while county officials have asked for the highway to be reshaped to one side. City officials have expressed concerns that widening the highway to four

lanes would only continue to flow large amounts of traffic into downtown and hamper any efforts to transform Main Street into a calmer, more attractive city center.

For more information on the couplet, visit http://mdt.mt.gov/pubinvolve/kalispellcourt.

#### SHOW COMMENTS

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Rhythm of the Sole



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### MONTANA

### **ALTERNATIVE SCENARIOS**

SAFETY

shes 66%

#### **TRAFFIC CONDITION**



#### **Study Purpose:**

- Identify possible lane configurations
- Identify traffic operation and safety issues
- Project future conditions
- Determine the impact of the full bypass
- Collaborate with local officials and the public

#### **Traffic Data Collection:**

- Intersection turning movement counts were performed at 6 intersections
- Counts were performed during April and August of 2015
- AM, Noon, and PM peak hours were analyzed

#### Crash Data:

- Data obtained from MDT Traffic and Safety Bureau
- Data represents crashes that occurred between January 1<sup>st</sup>, 2010 and December 31<sup>st</sup>, 2014
- 83 total reported crashes within the study area

#### Crash Severity:





#### Existing (2015) Level of Service (LOS):

#### Projected (2040) Level of Service (LOS):









# background



#### Crash Month of the Year:



#### Crash Time of the Day:

### MDTA

### **ALTERNATIVE SCENARIOS**







#### **Description**:

Alternative 1 represents the "no action" scenario in the traffic model. This alternative establishes a baseline for comparing each alternative. No changes were made to the existing transportation network under this alternative, other than completion of the Kalispell Bypass.

Traffic volumes are shown to only increase slightly through the couplet under this alternative. Existing and projected volumes are at or above the roadway capacity for the couplet. As a result, traffic shifts onto the nearby road network to meet traffic demands. Roadways such as 5<sup>th</sup> Avenue West, 1<sup>st</sup> Avenue West, and 1<sup>st</sup> Avenue East are projected to experience large increases in traffic. Volumes on US 93 north and south of the couplet are also shown to increase under projected conditions.



6" Ave

\*Also includes TWLTL

and/or left-turn bays

9\*\* St 10<sup>th</sup> 5t

±(#)=

Directions of travel and number of lanes

11º 51

12<sup>10</sup> 51

13" 51

Alternative 2 consists of establishing a uniform roadway configuration on Main Street through downtown Kalispell. The configuration would include one travel lane in each direction and center TWLTL or left-turn lanes at major intersections. Main Street would have two fewer through travel lanes through the downtown area than at present.

As with Alternative 1, traffic volumes are shown to only increase slightly through the couplet. Existing and projected volumes are at or above the roadway capacity for the couplet. As a result, notable increases in traffic are projected to occur on the nearby road network due to lack of capacity on Main Street. Roadways such as 5<sup>th</sup> Avenue West, 1<sup>st</sup> Avenue West, 1<sup>st</sup> Avenue East, and Woodland Avenue are projected to experience large increases in traffic.





RPA

# model results

#### **Description**:

### MDTA

### **ALTERNATIVE SCENARIOS**







#### **Description**:

Alternative 3 provides two travel lanes in each direction north of 13th Street East. Also included would be a center TWLTL or left-turn lanes at major intersections. This alternative reflects the preferred alternative identified in the 1994 U.S. Highway 93 Somers to Whitefish West Final EIS/Section 4(f) Evaluation.

Roadway capacity in the vicinity of the Courthouse would be increased consistent with the northern and southern portions of the Main Street corridor. Merging conflicts would be reduced due to the consistent number of travel lanes. This alternative results in increased traffic volumes on the Main Street corridor due to the increase in capacity. Projected volumes on side streets are lower than projected for Alternatives 1 and 2.







# model results

#### **Description**:

Alternative 4 consists of establishing the same roadway section for US 93 as presented in Alternative 2 – one travel lane in each direction and a center TWLTL or left-turn lanes at major intersections – and changing 1<sup>st</sup> Avenue East and West to a one-way couplet. First Avenue East would include two northbound lanes and First Avenue West would include two southbound lanes. Center Street and 12<sup>th</sup> Street East would also be enhanced to accommodate the additional traffic accessing the one-way roads. This alternative shows similar projected volumes along US 93 as in the Courthouse area Alternative 2.

### 

### **ALTERNATIVE SCENARIOS**



#### **Description**:

**ALTERNATIVE 5** 

Alternative 5 consists of configuring US 93 as a one-way road with three southbound lanes between 13<sup>th</sup> Street East and Center Street. To accommodate northbound traffic, 1st Avenue East would be configured as a one-way northbound road with two travel lanes between Main Street and Center Street. Under this alternative, traffic volumes along US 93 are shown to decrease under projected conditions due to only accommodating southbound traffic. However, volumes on 1<sup>st</sup> Avenue East would increase substantially.

#### ALTERNATIVE 6











# model results

#### **Description**:

Alternative 6 envisions US 93 and 1<sup>st</sup> Avenue West as a one-way couplet. US 93 would accommodate three northbound lanes while 1st Avenue West would have two southbound lanes. As with Alternative 5, traffic volumes along US 93 are shown to decrease, while volumes on 1<sup>st</sup> Avenue West would increase.

### MONTANA

### **ALTERNATIVE SCENARIOS**



### **ALTERNATIVE 7**

#### **Description**:

Alternative 7 consists of improvements to Willow Glen to increase capacity. A center TWLTL or leftturn lanes at major intersections would be added to improve traffic operations on Willow Glen. In addition, a new connection would be made at the intersection of US 2 and MT 35. No changes were included to the US 93/Main Street corridor under this alternative. The projected traffic volumes on US 93 are similar to the No Action scenario (Alternative 1). Projected traffic volumes on US 93 at the Courthouse Couplet are shown to exceed roadway capacity. Modeling results show improvements to Willow Glen would result in approximately 3 time more traffic on the roadway than existing conditions.

#### **ALTERNATIVE 8**



**Description**: Alternative 8 combines the improvement included with Alternatives 2 and 7. Capacity would be increased on Willow Glen Drive, a new connection to US 2/MT 35 would be made, and the US93/Main Street corridor would be modified to include one travel lane in each direction. The projected traffic volumes under this alternative are similar to those of Alternative 2. Projected volumes on US 93 at the Courthouse Couplet are shown to exceed roadway capacity. Modeling results show improvements to Willow Glen would result in approximately 3 times more traffic on the roadway than existing conditions.







# model results





#### INFORMATIONAL HANDOUT

#### **STUDY AREA**



#### **STUDY BACKGROUND**

#### **Study Purpose**

- Identify possible lane configurations
- Identify traffic operational and safety issues
- Project future conditions
- Identify impact of full bypass
- Collaborate with local officials and the public

#### **Traffic Conditions**

- Existing Average Annual Daily Traffic
   16,340 to 19,690 vehicles per day
- Projected Average Annual Daily Traffic
  - 21,160 to 25,500 vehicle per day

#### **Crash History**

- 83 crashes between Jan. 1<sup>st</sup> 2010 and Dec. 31<sup>st</sup>, 2014
- No Fatal Crashes, 2 Incapacitating Injury Crashes

#### **ALTERNATIVE SCENARIOS**

#### Alt 1 – Baseline

• Full bypass, no additional changes

### Alt 2 – Two Travel Lanes with TWLTL/Left-turn lanes

• Between 13<sup>th</sup> Street E and Center Street

### Alt 3 – Four Travel Lane with TWLTL/Left-turn lanes

• Between 13<sup>th</sup> Street E and Center Street

#### Alt 4 – One-way Couplet (A)

- US 93 two travel lanes with TWLTL./left-turn lanes
- 1<sup>st</sup> Avenue E one-way NB
- 1<sup>st</sup> Avenue W one-way SB
- Improvements to Center Street and 12<sup>th</sup> Street E

#### Alt 5 – One-way Couplet (B)

- US 93 one-way SB
- 1<sup>st</sup> Avenue E one-way NB
- Improvements to Center Street

#### Alt 6 – One-way Couplet (C)

- US 93 one-way NB
- 1<sup>st</sup> Avenue W one-way SB
- Improvements to Center Street and 12<sup>th</sup> Street E

#### Alt 7 – Willow Glen Upgrade

Two-lane with TWLTL/Left-turn lanes

#### Alt 8 – Willow Glen Upgrade and US 93 Two-lane with TWLTL/Left-turn lanes

Combine Alt 2 and Alt 7



## Courthouse Couplet -Kalispell Traffic Engineering Study

June 28, 2016

ST DE G

## Background

- 1994 US Highway 93
   Somers to Whitefish
   West EIS
- Remaining portion between 13<sup>th</sup> Street and 7<sup>th</sup> Street
  - Preferred alternative of two northbound and two southbound lanes
- Traffic Study prior to design



US Highway 93 • Somers to WhitefishWest

FINAL Environmental Impact Statement and FINAL Section 4(f) Statement

**VOLUME I** 

US Department of Transportation Federal Highway Administration

## Traffic Engineering Study

- Identify possible lane configurations
- Identify traffic operational and safety issues
- Project future conditions
- Impact of full bypass
- Collaborate with local officials and the public
- Not design details



## Work to Date

- Data Collection
- Land Use Workshop
  - Assign future growth
  - With City, County, and MDT
- Travel Demand Modeling
  - Existing Conditions
  - Future E+C (2040)
  - Alternative Scenarios
- Existing and Projected Conditions Analysis
- Outreach to Elected Officials



# Existing and Projected Traffic Conditions



Existing and Projected Conditions

- TMC at 6 intersections
  - Average day (April)
  - Peak summer (August)

## **Entering Volume Comparison**



- April volumes greater than August
- 9.3% decrease in August

## **Entering Volume Comparison**



8

## **Entering Volume Comparison**



- August and April volumes are similar
- 4.8% increase in August
- Highest Volumes throughout the day

## Existing Level of Service



## Existing AADT (2013)



## Projected Traffic Conditions (Corridor-level)

### **HISTORIC GROWTH**

- 1.04% over past 20 years
- -1.16% over past 10 years
- -2.06% over past 5 years
- Impact of partial bypass

### TRAVEL DEMAND MODEL

- No Action
  - 0.36%
  - Restricted growth along corridor due to capacity constraints
  - Impacts of full bypass
- Additional Capacity
  - 1.45%
  - More reflective of demand

### Growth rate used for future corridor projections:

• 1.00%

## **Projected Level of Service**



## Projected AADT (2040)



Using 1.0% AAGR

## Safety

### JANUARY 1, 2010 THROUGH DECEMBER 31, 2014

## Crash Type



- 83 reported crashes
- 89% involved multiple vehicles

## Crash Severity



 Approximately 2% severe crashes

## Crashes by Time of Day



- 24% during noon peak hour
- Peak during school pick-up time

## Crashes by Day of Week



Smallest percentage during weekend

## Crashes by Month of Year



 Peak during summer



## **Alternative Scenarios**

### 8 SCENARIOS INCLUDING BASELINE

## **Alternative Scenarios**

### Alt 1 – Baseline

Full bypass, no additional changes

## Alt 2 – Two Travel Lanes with TWLTL / Left-turn lanes

Between 13th Street E and Center St

## Alt 3 – Four Travel Lanes with TWLTL / Left-turn lanes

Between 13th Street E and Center St

### Alt 4 – One-way Couplet (A)

- US 93 2 travel lanes with TWLTL / left-turn lanes
- 1<sup>st</sup> Ave E one-way NB
- 1<sup>st</sup> Ave W one-way SB
- Improvements to Center St and 12th St E

### Alt 5 – One-way Couplet (B)

- US 93 one-way SB
- 1st Ave E one-way NB
- Improvements to Center St

### Alt 6 – One-way Couplet (C)

- US 93 one-way NB
- 1st Ave W one-way SB
- Improvements to Center St and 12th St E

### Alt 7 – Willow Glen Upgrade

• 2-lane with TWLTL / left-turn lanes

### Alt 8 – Willow Glen Upgrade and US 93 2-lane with TWLTL / Left-turn lanes

Combined Alt 2 and Alt 7

### Alternative 1: Baseline



Extent of proposed changes



Directions of travel and number of lanes

Kalispell city limits

\*Also includes TWLTL and/or leftturn bays

## Alternative 1: Baseline



### Alternative 2: Two Travel Lanes



Extent of proposed changes



Directions of travel and number of lanes

Kalispell city limits

\*Also includes TWLTL and/or leftturn bays

## Alternative 2: Two Travel Lanes



### Alternative 3: Four Travel Lanes



Extent of proposed changes



Directions of travel and number of lanes

Kalispell city limits

\*Also includes TWLTL and/or leftturn bays

### Alternative 3: Four Travel Lanes



### Alternative 4: One-way Couplet (A)



Extent of proposed changes



Directions of travel and number of lanes

Kalispell city limits

\*Also includes TWLTL and/or leftturn bays

### Alternative 4: One-way Couplet (A)



### Alternative 5: One-way Couplet (B)



Extent of proposed changes



Directions of travel and number of lanes

Kalispell city limits

\*Also includes TWLTL and/or leftturn bays

## Alternative 5: One-way Couplet (B)



### Alternative 6: One-way Couplet (C)



Extent of proposed changes



Directions of travel and number of lanes

Kalispell city limits

\*Also includes TWLTL and/or leftturn bays

### Alternative 6: One-way Couplet (C)



## Alternative 7: Willow Glen (A)



36

### Alternative 7: Willow Glen (A)



### Alternative 8: Willow Glen (B)



Extent of proposed changes



Directions of travel and number of lanes

Kalispell city limits

\*Also includes TWLTL and/or leftturn bays

## Alternative 8: Willow Glen (B)



## Traffic Summary

| Road             | Location             | 2013<br>AADT | 2040<br>Proj.* | 2040 Projected AADT |        |        |        |        |        |        |        |
|------------------|----------------------|--------------|----------------|---------------------|--------|--------|--------|--------|--------|--------|--------|
|                  |                      |              |                | Alt 1               | Alt 2  | Alt 3  | Alt 4  | Alt 5  | Alt 6  | Alt 7  | Alt 8  |
| Main St          | S of 12th St         | 19,690       | 25,500         | 23,900              | 24,980 | 31,270 | 25,670 | 15,950 | 25,440 | 23,200 | 24,410 |
| Main St          | S of 7th St          | 17,460       | 22,620         | 18,010              | 18,410 | 28,390 | 18,540 | 14,950 | 15,600 | 17,880 | 18,240 |
| Main St          | N of 4th St          | 16,100       | 21,160         | 17,500              | 16,070 | 22,870 | 16,610 | 12,640 | 12,640 | 17,000 | 15,750 |
| 1st Ave E        | S of 8th St          | 3,350        | -              | 5,080               | 4,710  | 3,390  | 4,630  | 8,690  | 4,650  | 4,290  | 3,910  |
| 1st Ave W        | N of 9th St          | 3,900        | -              | 5,170               | 4,820  | 3,640  | 3,530  | 4,350  | 7,380  | 4,320  | 4,450  |
| Kalispell Alt Rt | N of Airport Rd      | 6,190        | -              | 15,590              | 15,570 | 15,280 | 15,560 | 15,750 | 15,510 | 15,180 | 15,140 |
| Kalispell Alt Rt | N of 4 Mile Dr**     | -            | -              | 17,340              | 17,570 | 17,250 | 17,240 | 17,400 | 16,980 | 16,950 | 17,240 |
| Willow Glen      | N of Woodland<br>Ave | 3,880        | -              | 8,680               | 9,050  | 9,110  | 9,210  | 9,040  | 9,220  | 13,930 | 14,030 |

\*Based on 1.0% AAGR applied to 2013 AADT \*\*Model volume used

## **Conclusion and Next Steps**

## Next Steps

- Receive Feedback on Analysis
  - Narrow down alternatives
- Funding Considerations
  - Limitations of existing funding
  - Different funding programs
- Draft Traffic Report
  - Present to Elected Officials

