

# PAC MEETING #2 SUMMARY

---



**Exposition Dr & 1<sup>st</sup> Ave N – Billings**

**NH 16-1(53)0, UPN 7908000**

September 19, 2019 @ 3 – 5 PM

Billings Public Library (510 N Broadway, Billings, Montana)

---

## Attendees

*The sign-in sheet is included in Attachment A.*

## Action Items

- Post PAC meeting summary on web page
- Schedule Open House and PAC Meeting for early December.
- MDT to review feedback and select two alternatives to move forward.

## Meeting Objectives:

1. Understand the Tier 1 intersection alternatives, evaluation criteria, and results
2. Provide feedback on the Tier 1 alternatives

## Meeting Summary

3 PM *Welcome*

Andy and Wade welcomed the group.

3:10 *Presentation - Presentation slides are included in Attachment B.*

### Comments/Questions on Recap from PAC Meeting #1

MetraPark Alternative Update

- Did Metra Park have thoughts on security related to the new connection on the east side of the Park? They were interested in the additional access for event ingress and egress. They'd likely have a fence on the side of the road.
- What are the grades on the potential roadway alignment? *A roadway is feasible with the grade, but it would be an added cost.*
- Is there enough storage for the ~1,000 pedestrians counted during the fair? *Yes, but the waiting area on the southwest and southeast quadrants could be expanded to improve the pedestrian experience. The 1,000-plus pedestrians are the total number of pedestrians that crossed the south leg of the 4<sup>th</sup> Avenue N & Exposition Drive intersection on the Friday and Saturday. The total pedestrians that crossed on an hourly basis ranged from 11 to 271 pedestrians, or an average of 10 to 12 pedestrians per cycle length crossing this south leg and waiting on either side.*

## Alternative Discussion



### General Comments/Questions

- What are benefits of removing the slip lane (free right lane) from Exposition to 1<sup>st</sup> Avenue?
  - *Addresses problem of poor sight lines*
  - *Provide opportunity for improved pedestrian facilities*
  - *Property owners commented that there are odd maneuvers and crashes. In PM, there are approximately 500 vehicles making the turn, so it does queue up.*
- What is MDT's target for life span? *About 20 years.*
- The alternative should solve today's issues and look ahead 20 plus years.
- Factor other projects going on into the decision-making process.
- This project should enhance MetraPark. New fencing/aesthetics/gateway elements.
- Get the project going.
- Fix westbound right-turn movement.
- Prefer alternatives with larger pedestrian/bicycle refuge islands.
- Connect bikes to 3<sup>rd</sup> Avenue N.
- Support pedestrian-activated crossing with advance warning flasher.

### Alternative 2

- What happens to triangle on south intersection leg? *It becomes excess land and could be used as a gateway treatment. It was noted that the Yellowstone County and Big Sky Economic Development are working together on a project to identify locations for creating a gateway/welcome treatments in the area. This intersection was highlighted during the Yellowstone County Commission update as a potential location for a gateway treatment.*
- What are detached sidewalks? *Detached sidewalks provide separation between the roadway and the sidewalk with some type of buffer. When possible, we tried to maximize separation to provide a landscaped buffer to increase aesthetics and comfort for the sidewalk user. This area can also accommodate snow storage. Detached sidewalks are the same as the city's boulevard treatment.*
- You said you counted 1,000 people on Saturday, how do you "store the people" at 4<sup>th</sup> Avenue. *It would be a single stage crossing with shorter distance. We are also proposed to provide an expanded waiting area for pedestrians on either side of the crossing. The 1,000-plus pedestrians are the total number of pedestrians that crossed the south leg of the 4<sup>th</sup> Avenue N & Exposition Drive intersection on the Friday and Saturday. The total pedestrians that crossed on an hourly basis ranged from 11 to 271 pedestrians, or an average of 10 to 12 pedestrians per cycle length crossing this south leg and waiting on either side.*

### Alternative 3

- The red line that goes up Main Street – is that a median? *Yes. It's drawn in as the storage for the southbound left-turn lane that would be extended in this alternative.*

### Alternative 4

- This includes a free right from 1<sup>st</sup> Avenue, north to Exposition Drive unless a pedestrian activates the pedestrian crossing.
- What is extra space on east side of the free right turn lane? *It is to accommodate large truck turns.*

### Alternative 5

- I like Alternative 5 but why isn't there a bike path on the east side? *For this alternative, we provide the continuous pathway connection on the west side between 1<sup>st</sup> Avenue N and 4<sup>th</sup> Avenue N. detached sidewalks*

are provided on the east side. If desired, the pathway could be relocated to the east side to connect with the pathway heading toward the Jim Dutcher Trail.



- Two right hand turns are signalized. Yes.
- Would it still be right-turn-on-red for dual right turn lanes? *It will depend on sight lines but likely only the inside right would be able to turn right-on-red. The design could also stagger cars for better visibility.*
- Do you have to merge after the bridge if you want to turn right? *Yes, but the team can look into this further with the roadway alignment and potentially having the two westbound lanes feed into a westbound left-turn lane and westbound right-turn lane.*
- What is the advantage of 4 over 5? Or vice versa. *Operationally, they are the same but it is really the weave issue on Exposition Drive; signalized dual right-turn lanes are better for pedestrians than free right-turn lane. Alternative 4 has additional impacts to MetraPark due to the additional northbound through lane on Exposition Drive.*

#### Alternative 6

- Does it change northbound through queues? *Yes. It reduces the 95<sup>th</sup> percentile queue to 325 feet. The estimated 95<sup>th</sup> percentile queue is 925 feet for the northbound through lane in the no-build condition (Alternative 1).*
- Trouble understanding signal – southbound, to east – how many signals? *One at 3<sup>rd</sup> Avenue N, which is the crossover signal for southbound left-turns and one at 1<sup>st</sup> Avenue. These two signals are timed together to help manage traffic flow and queues for the southbound left-turn movement.*
- It impacts more Metra Park frontage but what about west side. *Westside impacts are increased by about 20 feet to accommodate a pathway on that side.*

4:00 Breakout Session

- Open discussion of alternatives with team (roll plots).

#### Comment Form Summary:

Attendees were provided comment forms to give their feedback and recommendations for alternatives to advance to Tier 2. Six comment sheets were turned into the project team. Table 1 (on the next page) summarizes feedback. *Attachment C includes the completed comment forms.*



**Table 1. Comment Form Feedback from PAC**

Alternative	Move Forward to Tier 2		Comments & Concerns
	Yes	No	
1	1	2	Used for comparison
2		5	<b>Pros:</b> No comments <b>Cons:</b> Doesn't solve operation issues for 2040
3		5	<b>Pros:</b> No comments <b>Cons:</b> Doesn't solve operation issues for 2040 Potential queuing problems for westbound left-turn
4	5		<b>Pros:</b> Good bicycle and pedestrian facilities Better safety for bicyclists and pedestrians with the larger median at the intersection Simple design for user expectancy (driver, bicyclist, pedestrian) Relieves queuing on westbound right-turn movement Good free-flow movement for vehicles heading west-to-north for most times of day, especially as crossing is only activated when pedestrian is present <b>Cons:</b> No comments
5	3	2	<b>Pros:</b> Good bicyclist and pedestrian facilities <b>Cons:</b> Potential queueing on westbound right-turn if no right-turns-on-red are allowed
6	3	2	<b>Pros:</b> Longer life expectancy, fewer construction periods for the same lifespan Relieves queuing on westbound right-turn <b>Cons:</b> Higher right-of-way and cost Worse bicycle and pedestrian facilities compared to Alternatives 4 and 5 Potential northbound left-turn weaving issues between 1 <sup>st</sup> Avenue N and 6 <sup>th</sup> Avenue N

*Note: Some comment sheets did not circle yes or no for an alternative, which is why the total votes do not sum to six for each alternative.*

Other comments and considerations included the following:

- Lockwood is improving sidewalk on the north side of US 87 to the bridge (east of the study area) – providing improvements on the north side of 1<sup>st</sup> Avenue N would facilitate connections to Lockwood.
- Interest in seeing free right-turn on different concepts
- Interest in providing additional southbound left-turn storage on all plans
- Interest in seeing how a 4<sup>th</sup> leg would be integrated to the intersection, providing a connection to 2<sup>nd</sup> Avenue N.
- Has transit been involved?

**Attachments:**

- A. Sign-In Sheet
- B. Presentation Slides
- C. Comment Forms

Attachment A Sign-In Sheet



# Project Advisory Committee

September 19, 2019 3 to 5 PM

Billings Public Library

	<u>Name</u>	<u>Business/Organization</u>	<u>Initials</u>
1	Mike Black	Yellowstone County Public Works	✓
2	Erin Claunch	City of Billings Traffic <i>Dakota for Erin</i>	<i>DLM</i>
3	Rusty Logan	MET, Transit	
4	Mike Yakawich	Billings City Council - Ward 1	
5	Roy Neese	Billings City Council - Ward 2	
6	Donald Jones	Yellowstone County Commission	
7	Scott Walker	City of Billings Transportation Planning	
8	Kristi Drake	Billings TrailNet	✓
9	John Brewer	Billings Chamber of Commerce	
10	Pepper Valdez	Billings Fire Department	
11	Brian Korell	Billings Police Department	
12	Bill Dutcher	MetraPark	
13	Ed Arnold	Billings Heights Task Force	
14	Tim Goodridge	EBURD Coordinator	<i>AG</i>
15		Cherry Properties	
16	Ray Stevenson	A&I Distributors	
17	Denis Pitman	Yellowstone County Commission	
18	Wade Salyards	MDT	
19	Stan Brelin	MDT	
20			



# Exposition Drive & 1st Avenue Intersection Improvement Project

Project Advisory Committee Meeting #2  
Billings Public Library Community Room (510 North Broadway)  
Public Sign In Sheet



September 19, 2019 3 to 5 PM  
Project ID: UPN 7908000

Please Print

Name	Phone Number	Mailing Address	E-mail Address
Wade Salyards	406 444 0451	2701 Prospect Ave, Helena	wsalyards@mt.gov
Lora Mattop	247-8622	2825 3 <sup>rd</sup> Ave. N, 4 <sup>th</sup> Flr	mattox1@billingsmt.gov
Eric Schnellbach	657 8460	200 N 27 <sup>th</sup> St	schnelbache@ci.billings.mt.gov
Sean Biggins	657-8423	2305 8 <sup>th</sup> Ave North	bigginss@billingsmt.gov
<del>Mark</del> Mitchell	657-8428	" "	witchell1@billingsmt.gov

## Attachment B Presentation Slides

# Project Advisory Committee (PAC) Meeting #2

September 19<sup>th</sup>, 2019



# Meeting Purpose & Agenda

- Purpose
  - Understand the Tier 1 alternatives, evaluation criteria, and results
  - Provide feedback on the Tier 1 alternatives
- Agenda
  - Welcome
  - Presentation
    - Recap from PAC Meeting #1
    - Business and property owner outreach
    - Tier 1 alternatives, evaluation criteria, and results
    - Initial recommendations for Tier 2
  - Review Tier 1 alternatives (break-out session)
  - Next steps and meeting close



# Introductions

---

- Name
- Who you represent?
- Have you heard anything related to this intersection?

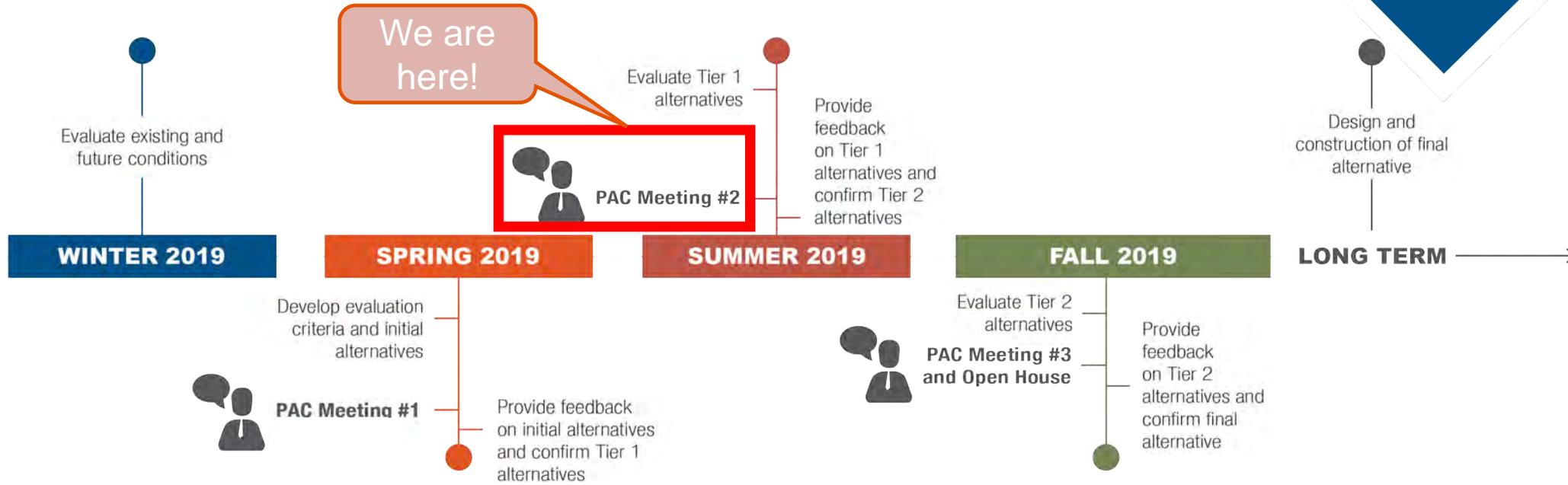


# Study Objectives

- Facilitate an open, honest, and transparent decision-making process
- Improve traffic operations at the intersection and the pedestrian and bicycle environment
- Improve pavement and area drainage



# Schedule





# Recap from PAC Meeting #1



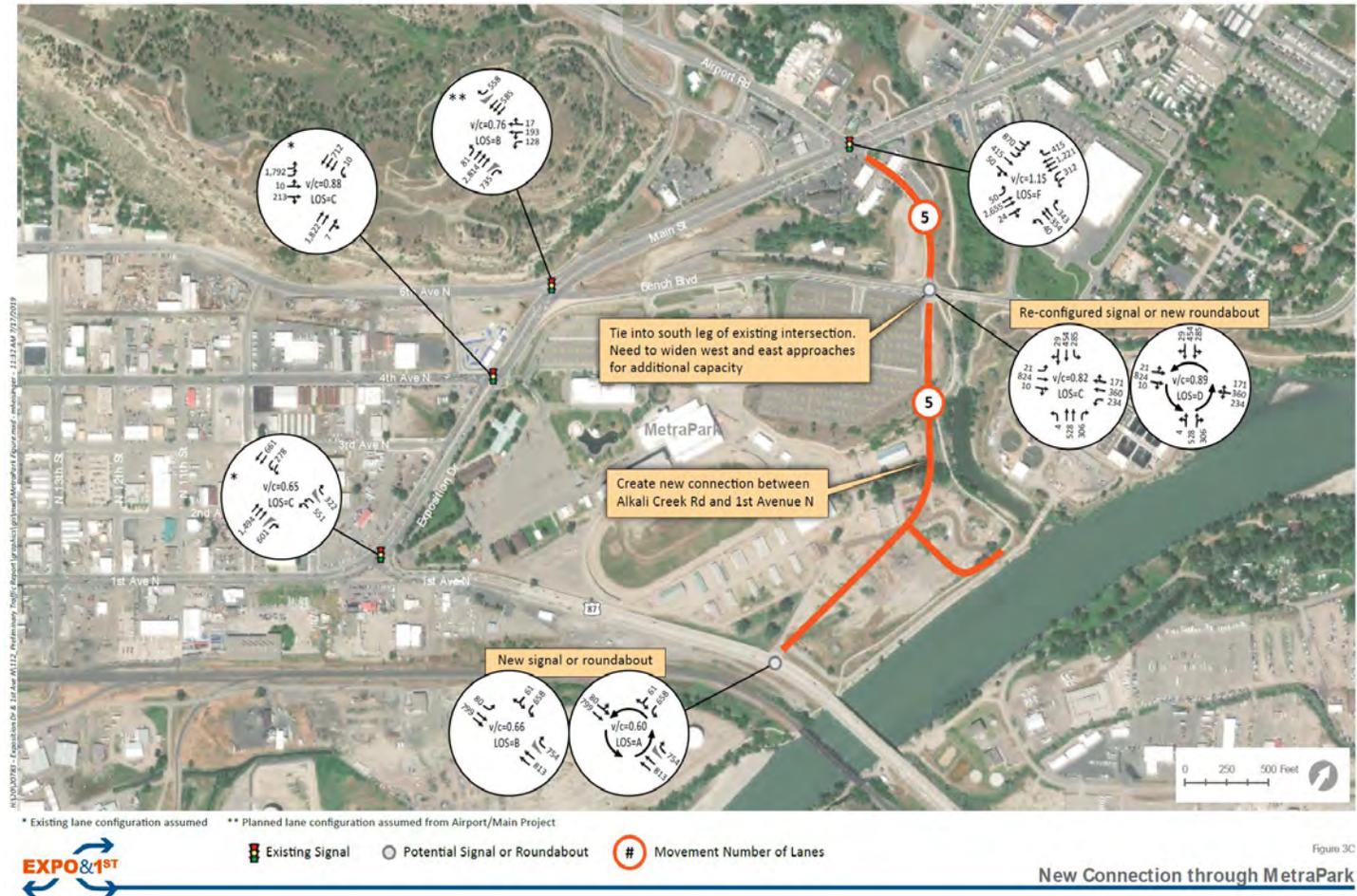
# Action Items from PAC Meeting #1

1. Post meeting materials on website [www.mdt.mt.gov/pubinvolve/expofirst](http://www.mdt.mt.gov/pubinvolve/expofirst)
  - Materials posted on website.
2. Schedule next PAC Meeting in September
  - We are here today!



# Action Items from PAC Meeting #1 (cont'd)

3. Perform further traffic analysis on MetraPark connection
- Benefits to Exposition Drive
  - Impacts to Airport/Main and Bench/New Connection
  - Consider adding to long range transportation plan and assessing after Bypass is in place



# Action Items from PAC Meeting #1 (cont'd)

## 4. Investigate a maximized pedestrian/bicycle alternative

- Enhanced crossing at 4<sup>th</sup> Ave N
- New crossings at Expo/1<sup>st</sup>
- Pathways
  - Exposition Dr
  - 1<sup>st</sup> Avenue N
  - US 87 to Jim Dutcher Trail
- Detached sidewalks

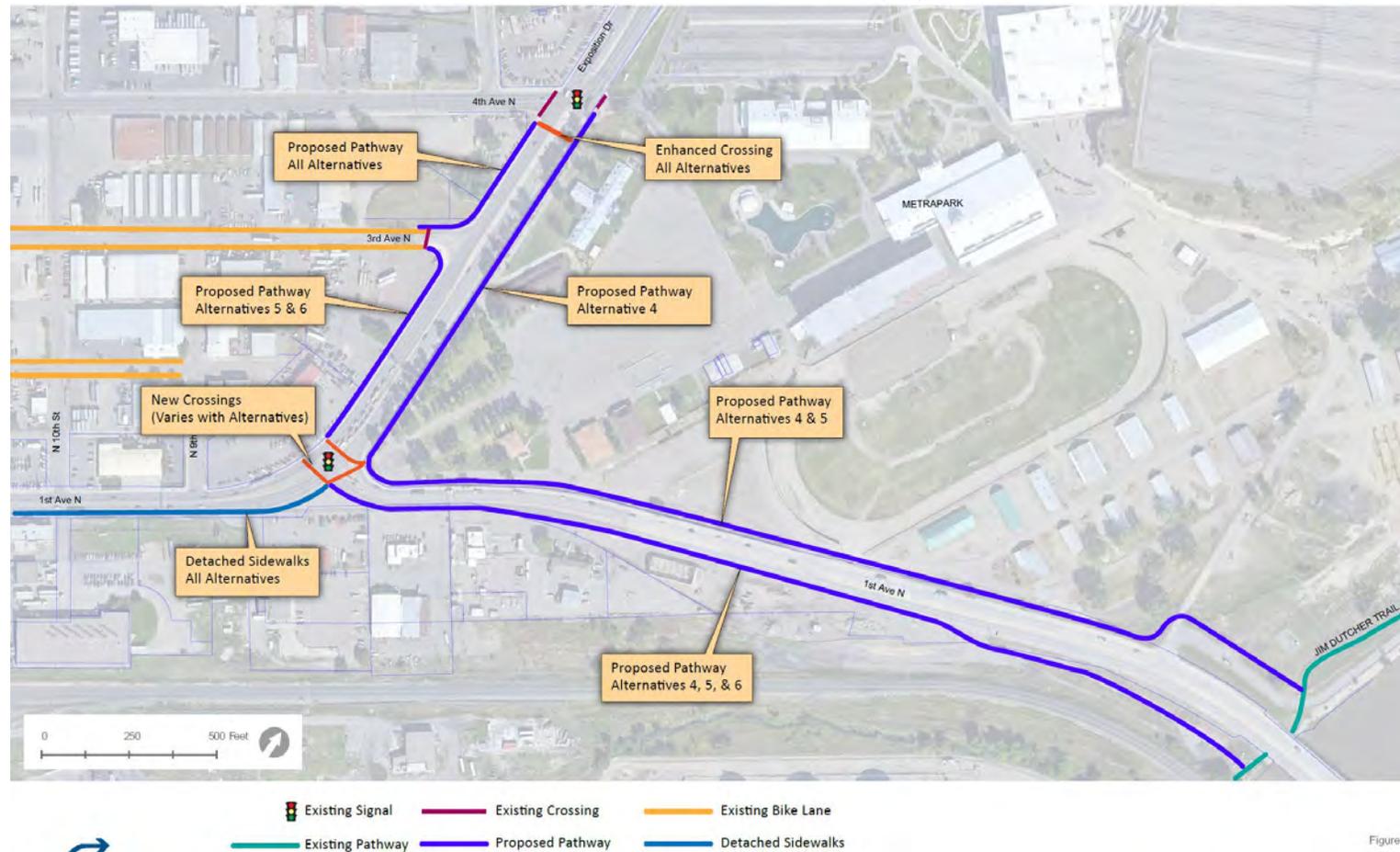


Figure 1

# Action Items from PAC Meeting #1 (cont'd)

5. Provide additional information on displaced left-turn (DLT) lane safety / enforcement based on other State's experiences
  - The Utah Department of Transportation installed DLT intersections at seven locations on the Bangerter Highway.
    - Crashes reduced by as much as 60 percent
      - [https://safety.fhwa.dot.gov/intersection/innovative/crossover/case\\_studies/salt\\_lake/dlt\\_bngrtr\\_3500.pdf](https://safety.fhwa.dot.gov/intersection/innovative/crossover/case_studies/salt_lake/dlt_bngrtr_3500.pdf)
  - Agencies implement education and outreach program during construction.

U.S. Department of Transportation  
Federal Highway Administration

Bangerter Corridor, Salt Lake County, UT  
**DISPLACED LEFT TURN INTERSECTION**

**THE PROBLEM**  
The Bangerter Highway corridor had a high crash rate and heavy delays. At some intersections, 25 percent of the signal time was devoted to left turns onto the minor roads, impeding both through traffic and traffic on the minor roads.

**THE SOLUTION**  
Installation of two-legged and four-legged DLT intersections at seven locations on the corridor to help alleviate congestion and improve flow.

**THE OUTCOME**

- Commute time along the corridor has been reduced by 3 ½ minutes.
- More than 800,000 gallons of fuel have been saved.
- Construction costs have been reduced by \$20-40 million.
- Crashes within ¼ of a mile of the initially treated intersection have been reduced by as much as 60 percent.
- Capacity along the corridor has increased by as much 20-50 percent, depending on the intersection.

**CONTACT**  
**Jeffrey Shaw, P.E.**  
FHWA Office of Safety  
703-283-3524  
jeffrey.shaw@dot.gov  
**Mark Doctor, P.E.**  
FHWA Resource Center  
404-562-3732  
mark.doctor@dot.gov

**CORRIDOR LOCATION**  
40°41'47.8"N 111°58'51.4"W

**Background**  
Bangerter Highway is a major north-south corridor stretching from Salt Lake International Airport in the north to an interchange with I-15 in the south. Prior to construction of a series of Displaced Left Turn Intersections (DLT), also known as Continuous Flow Intersections (CFI), Bangerter Highway experienced high crash rates and heavy delays.

**Challenges**  
Utah DOT's (UDOT) primary challenge along the corridor was congestion. At some intersections, 25 percent of the signal time was devoted to left turns onto the minor roads, impeding both through and minor road traffic. This challenge was compounded by a high crash rate. Between 1994 and 2003, the intersection of Bangerter and 3500 South alone experienced 618 crashes, an average of more than one crash per week.<sup>1</sup>

**Approach**  
UDOT examined several ways to treat the intersection of Bangerter and 3500 South—both to reduce congestion and to improve safety. A VISSIM simulation comparing a DLT to no changes at this location showed significant operational improvements with the DLT. UDOT installed the DLT at Bangerter and 3500 South and observed how it improved both traffic flow and safety at the intersection. In addition to the decreased commute time of nearly 4 minutes and a 60 percent reduction in crashes near the intersection, UDOT found that the DLT could be constructed for about ¼ the cost of a grade-separated interchange.<sup>2</sup> This motivated UDOT to install an additional six DLTs along the corridor.



Left Turn Crossover at Bangerter Highway and 3500 South  
Source: DLT Case Study Video FHWA-SA-14-059

**Results**  
Choosing to apply DLTs saved the state hundreds of millions of dollars. Each new DLT intersection cost between \$6 and \$8 million. Freeway-like, grade-separated interchanges would have cost \$30 to \$50 million each and required the re-location of numerous local businesses.<sup>3</sup>

In addition to cost savings, capacity along the corridor has increased by as much as 20 to 50 percent, depending on the intersection.<sup>4</sup> Safety also has improved, with crashes declining by 60 percent at some installations.<sup>5</sup> Air quality improvements include emissions reductions that save more than 800,000 gallons of fuel previously wasted during congestion-related idling. Pedestrians and bicyclists also benefit from improvements such as overhead pedestrian walkways, signalized crosswalks, refuge islands, and bicycle lane striping.

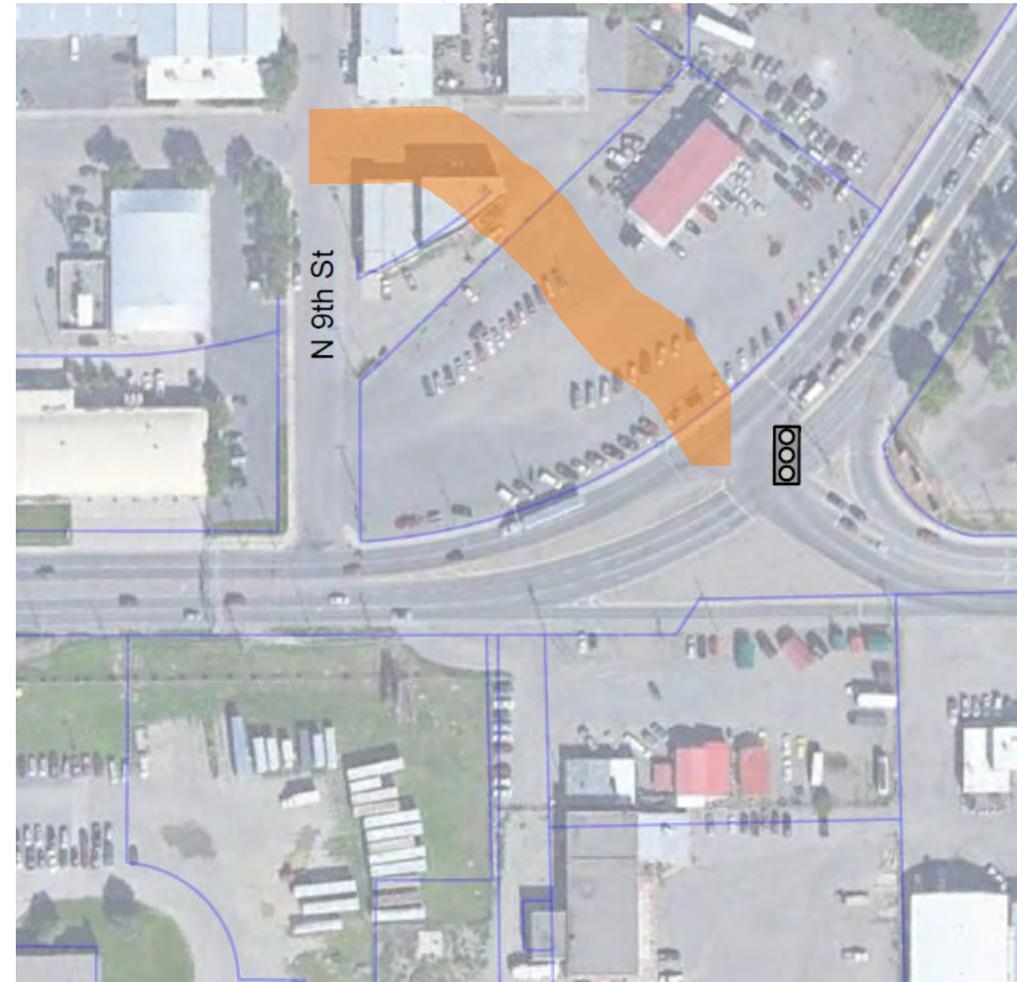
<sup>1</sup> Lee Davidson, "Unusual Utah intersections improve safety, save money," The Salt Lake Tribune, November 19, 2012. Available at: <http://www.sltrib.com/stories/news/55293779-78/bangerter-south-million-cfa.html.csp>  
<sup>2</sup> Wayne D. Cottrell and Sichun Mu, "Utah Intersection Safety - Requirement Crash Sites: Identification, Issues and Factors," Chapter 6, Study Intersections," Table 6.5, at <http://www.mountain-plains.org/publications/mplac06-08-178log6.htm>  
<sup>3</sup> Interview with Eric Rasband, Salt Lake City, UT, October 10, 2013.  
<sup>4</sup> Davidson, "Unusual Utah Intersections."  
<sup>5</sup> Interview with Eric Rasband, Salt Lake City, UT, October 10, 2013.  
<sup>6</sup> Davidson, "Unusual Utah Intersections."

This Fact Sheet is a companion to the Video Case Study (FHWA-SA-14-059)

**Safe Roads for a Safer Future**  
Investment in roadway safety saves lives  
[www.safety.fhwa.dot.gov](http://www.safety.fhwa.dot.gov)

# Action Items from PAC Meeting #1 (cont'd)

6. Follow up with City, County and MDT to see if connecting 2<sup>nd</sup> Avenue is a viable alternative to consider as part of this project
  - MDT's Systems Impact Process
  - Reached out to property/business owner for 1-on-1 meeting



# PAC Support on Initial Alternatives to Move Forward for Further Evaluation

- No Build (3)
  - Westbound Shared Left/Right-Turn Lane or Single Westbound Left-Turn Lane and Dual Westbound Right-Turn Lanes (4)
    - *Note: This option is split into two alternatives for Tier 1.*
  - Free Westbound Right-Turn Lane + 4<sup>th</sup> Northbound Through Lane (5)
  - Dual Westbound Right-Turn Lanes (5)
  - Displaced Left-Turn Intersection (3)
- 
- New Connection through MetraPark (2)
  - Multilane Roundabout (1)
  - Extend Exposition Drive to I-90 (1)
  - Grade Separation (1)





# Business and Property Owner Outreach

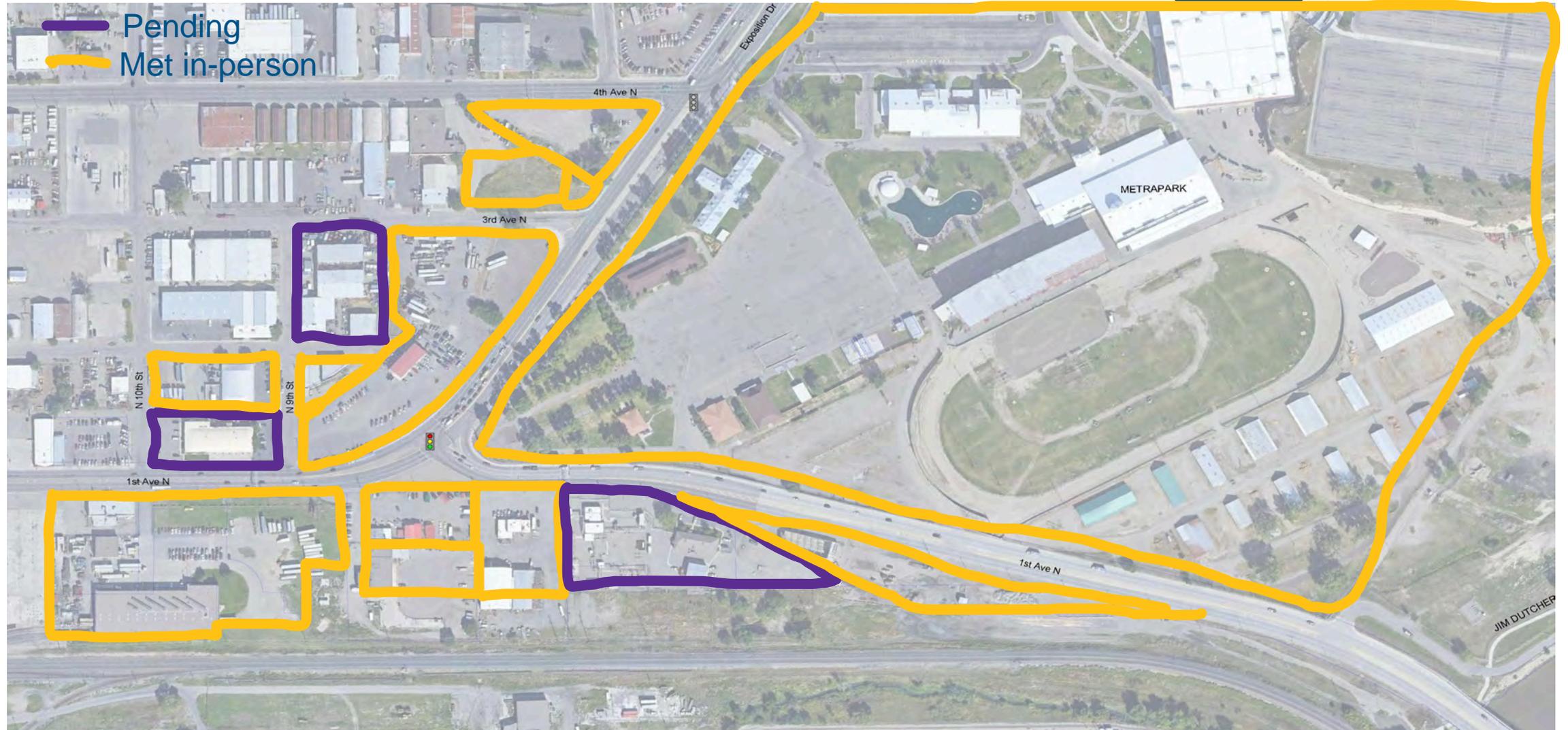


# Outreach Effort to Date

- Invite to participate on PAC
  - A&I Distributors
  - Berry's Cherries
- Sent meeting invitation to 20 businesses and property owners
- Door-to-door and 1-on-1 meetings over the last two days



# Business and Property Owner Outreach Map



# Business and Property Owners

- Northern Broadcasting System
- Beyond the Box, Inc.
- AutoMagic
- A&I Distributors
- Berry's Cherries
- Billings Machine & Welding Shop
- Pace Analytical
- Tazman Geoscience
- Kay Bollinger
- Charlie Yegen
- MetraPark
- Yellowstone County
- Phillips 66
- Montana Rail Link
- Montana Department of Transportation



# What We Heard?

- Deficiencies or concerns
  - Westbound right-turn has a high volume and backs up daily.
    - Challenging during events at MetraPark
  - Southbound left-turns are challenging for trucks.
  - Northbound right-turn lane
    - The skew / slip lane is unsafe.
    - Provides smooth operation, easy access for vehicles leaving town.
  - Pedestrians cross all over the place today.
  - Pedestrians use the bridge crossing located on north side.
  - Pedestrian crossings at the intersection would be unsafe given the high traffic volumes.
  - Impacts to property with project.
  - Access is difficult on south side of 1<sup>st</sup> Avenue N.
    - Several cross-access easements are in place.
    - Another cross-access easement is being explored by one property.



# What We Heard?

- Positive reaction to the following:

- Intersection project—glad to see the project happening.
- Westbound right-turn lane changes
- Northbound right-turn lane alignment
- Pathway on Exposition Drive
- Pathway on 1<sup>st</sup> Avenue N (US 87) to Jim Dutcher Trail (locate on the north side)
- Pedestrian crossing realignment at 4<sup>th</sup> Ave
- Pedestrian crossings at 1<sup>st</sup> Avenue N & Exposition Drive

- Some interest in the following:

- Displaced left-turn (longer term improvement)
- Free or 2<sup>nd</sup> northbound right-turn lane
- New signal at 10th Street / 1<sup>st</sup> Avenue N
- 2<sup>nd</sup> Avenue N connection
- Explore other access options for properties on the south side (possible backage roadway was discussed)

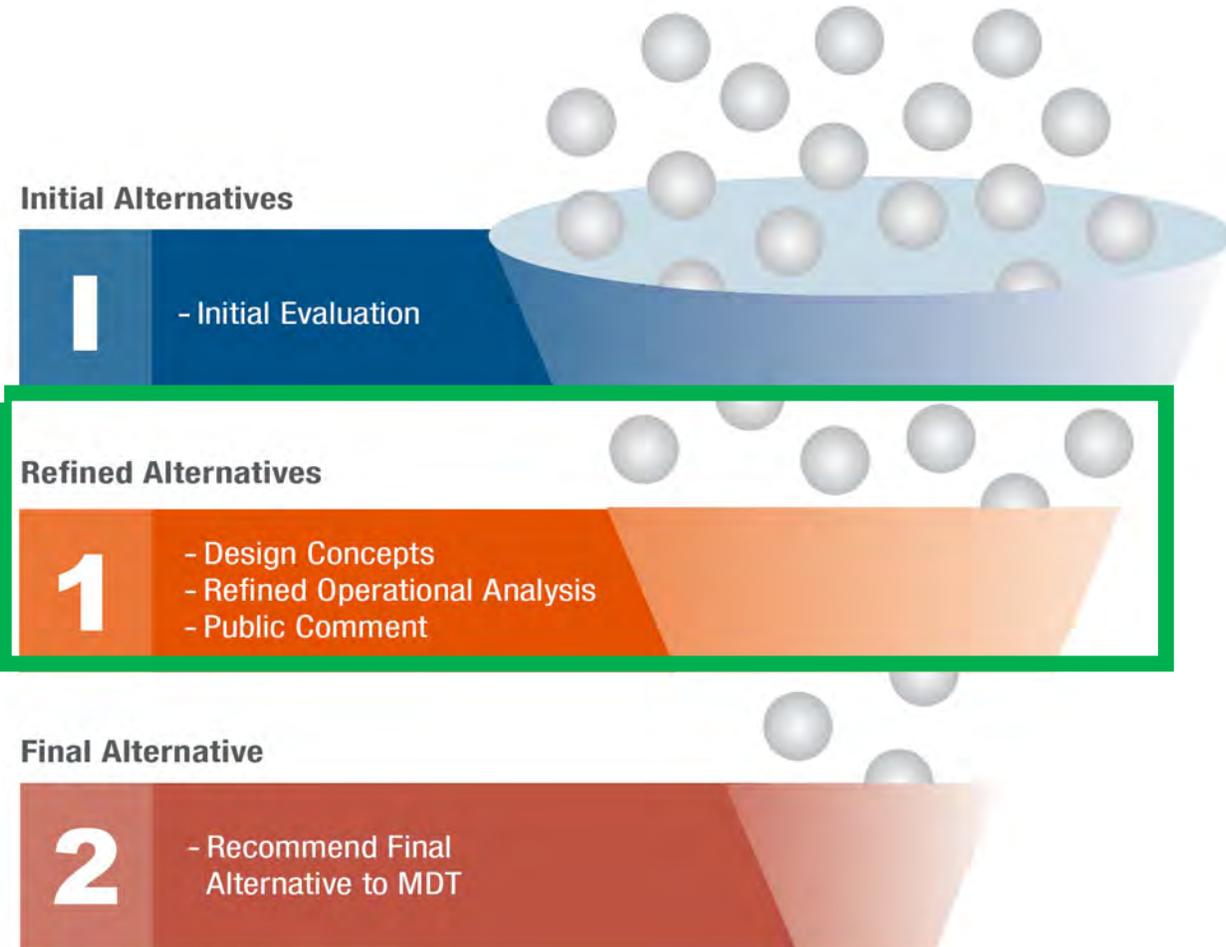




# Tier 1 Alternatives



# Tiered Approach

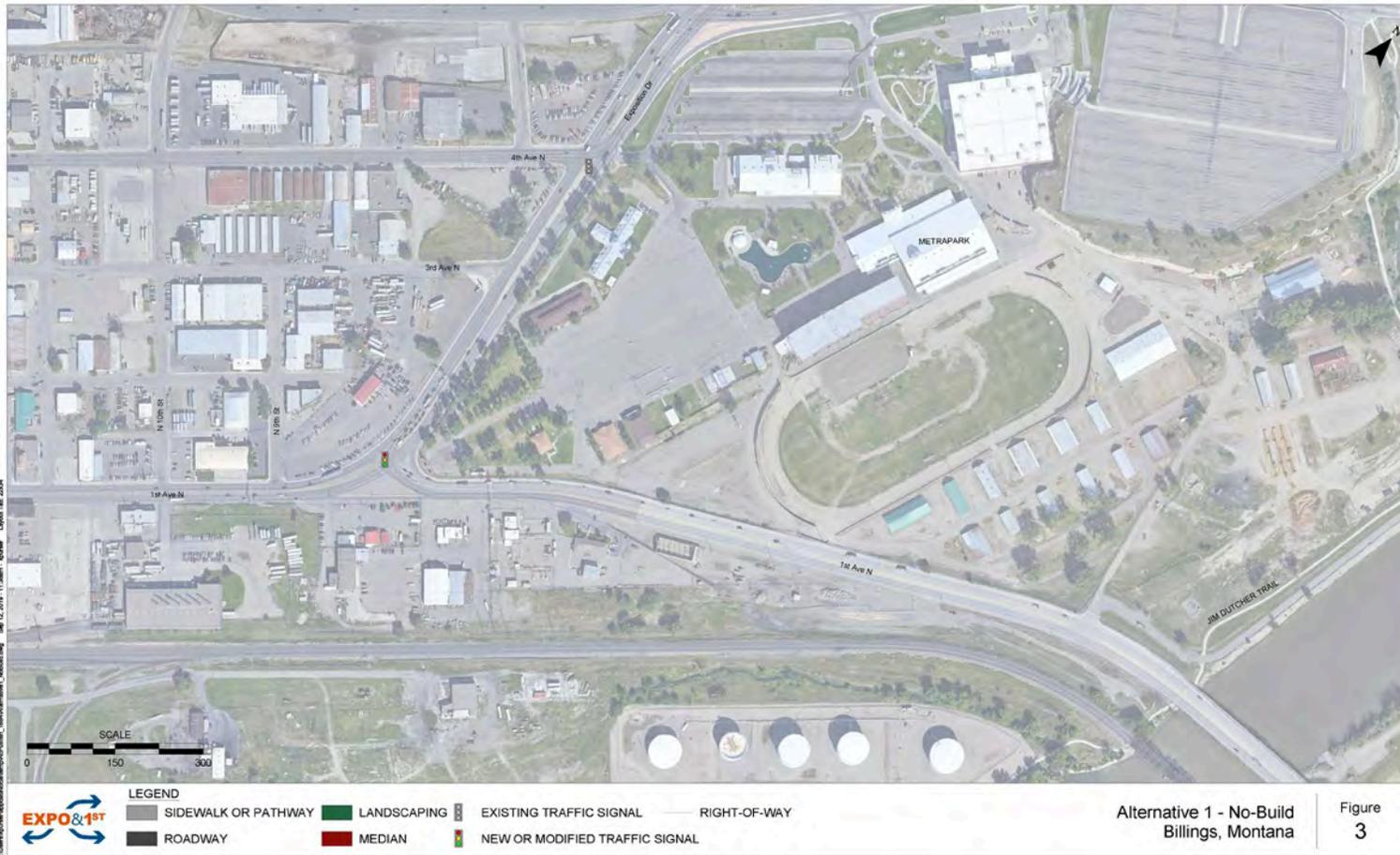


We are here!

- Started with a range of options (~16)
  - Selected six alternatives for Tier 1
- Tier 1
  - Evaluate six alternatives
  - Select two alternatives for Tier 2 evaluation



# Alternative 1 No-Build



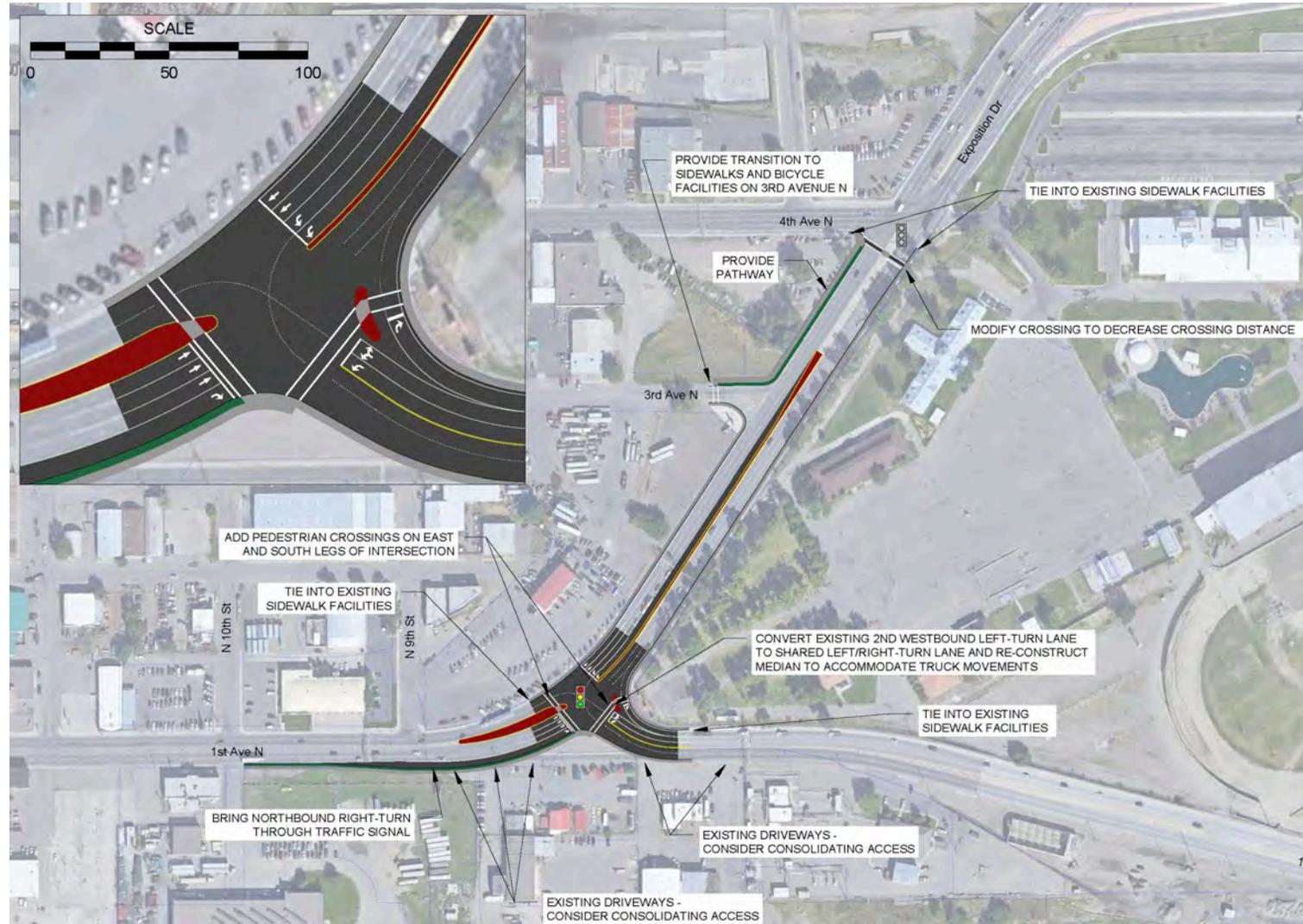
- Does not fix the problem
- Used to compare alternatives



03/13/2015 11:10:00 AM - Layer: 100 - 2004

# Alternative 2

## Westbound Shared Left/Right-Turn Lane

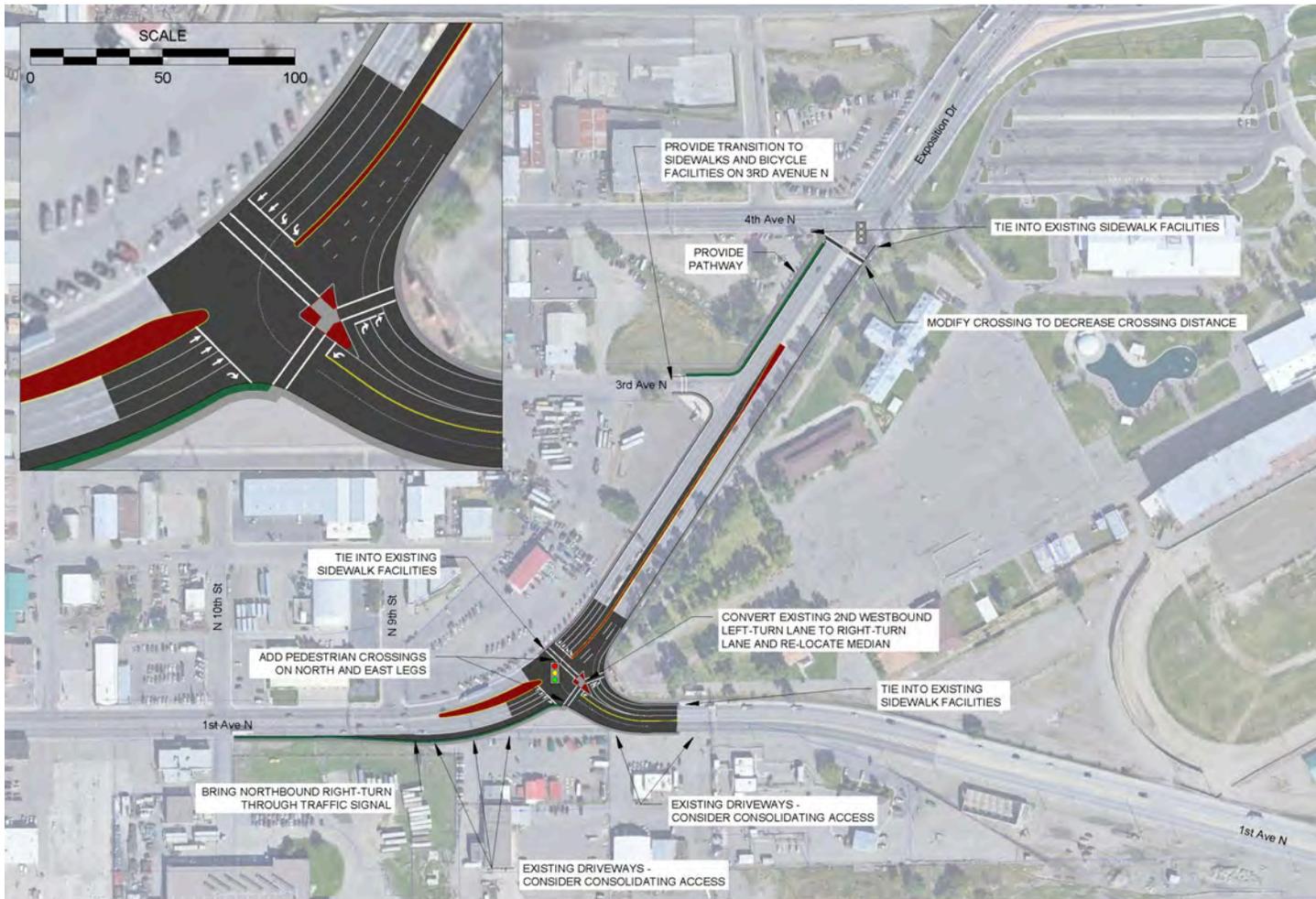


- Modify westbound approach
  - Left-turn lane
  - Shared left/right-turn lane
  - Right-turn lane
- Modify northbound right-turn lane
- Add crossings, pathway, and detached sidewalks



# Alternative 3

## Single Westbound Left-Turn Lane and Dual Westbound Right-Turn Lanes

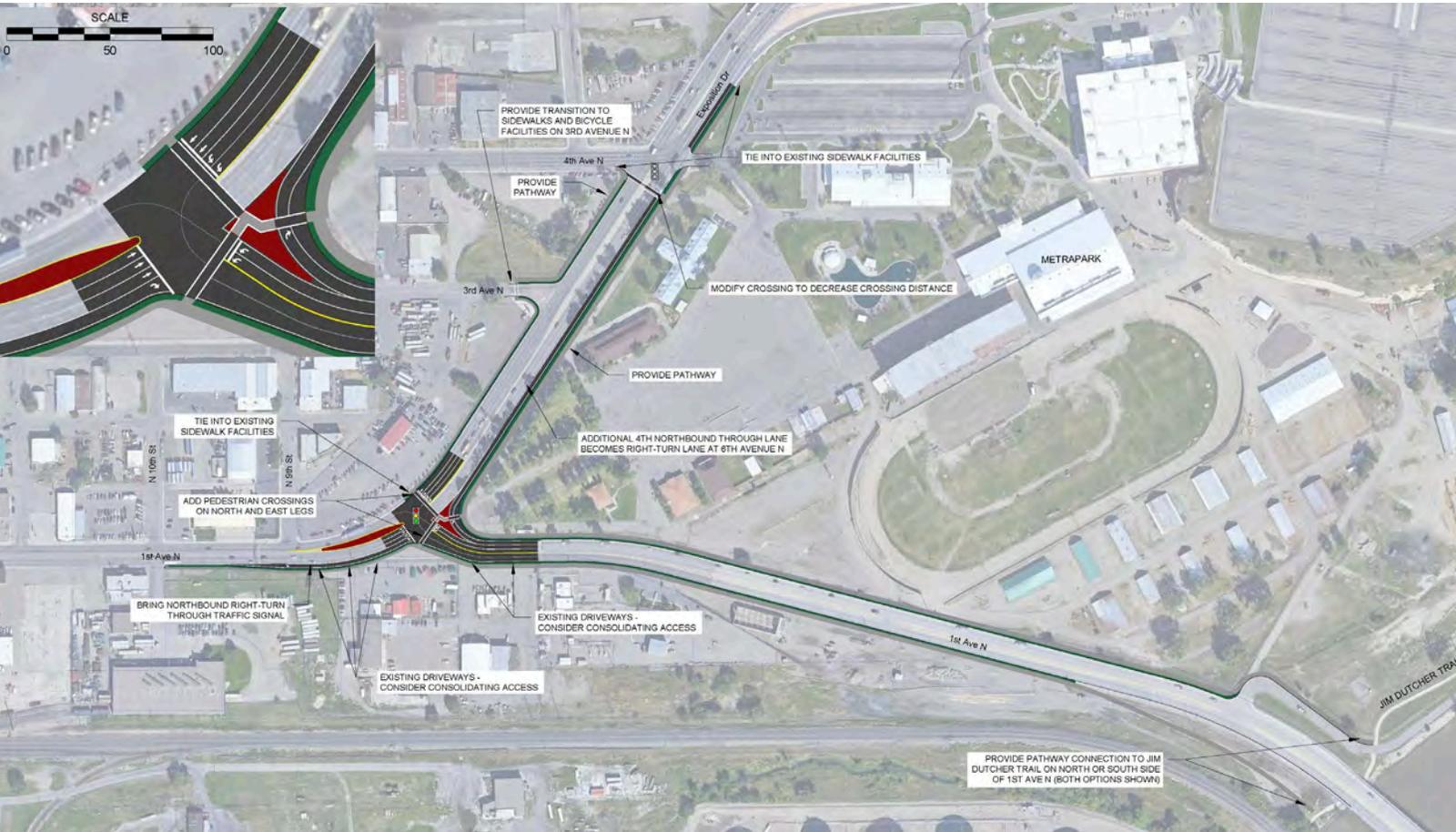


- Modify westbound approach
  - Left-turn lane
  - Dual right-turn lanes
- Modify northbound right-turn lane
- Add crossings, pathway, and detached sidewalks



# Alternative 4

## Free Westbound Right-Turn Lane

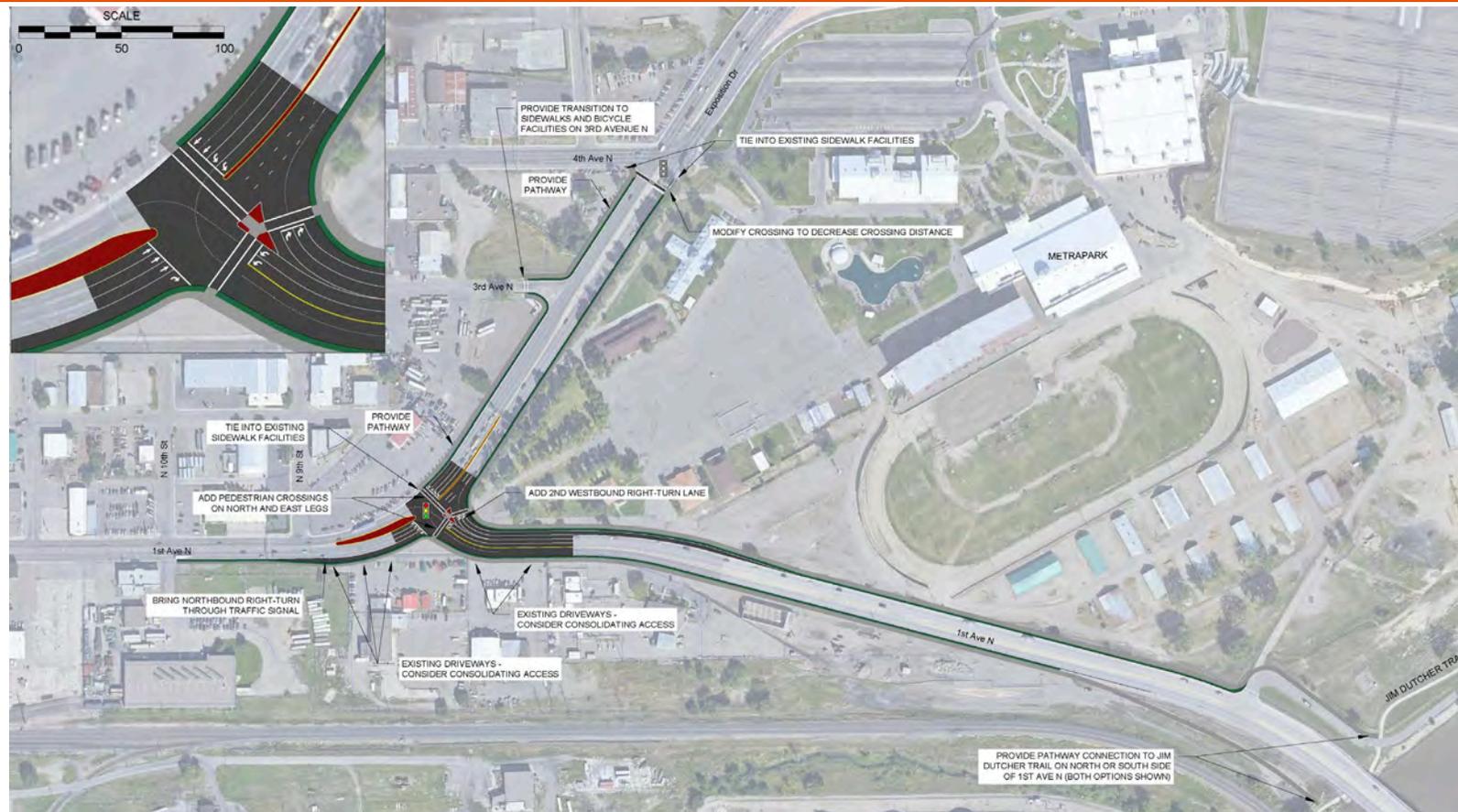


- Modify westbound approach
  - Dual left-turn lanes
  - Single right-turn lane (signalized)
- Add 4<sup>th</sup> northbound through lane to Bench Blvd
- Modify northbound right-turn lane
- Add crossings, pathway, and detached sidewalks



# Alternative 5

## Dual Westbound Right-Turn Lanes

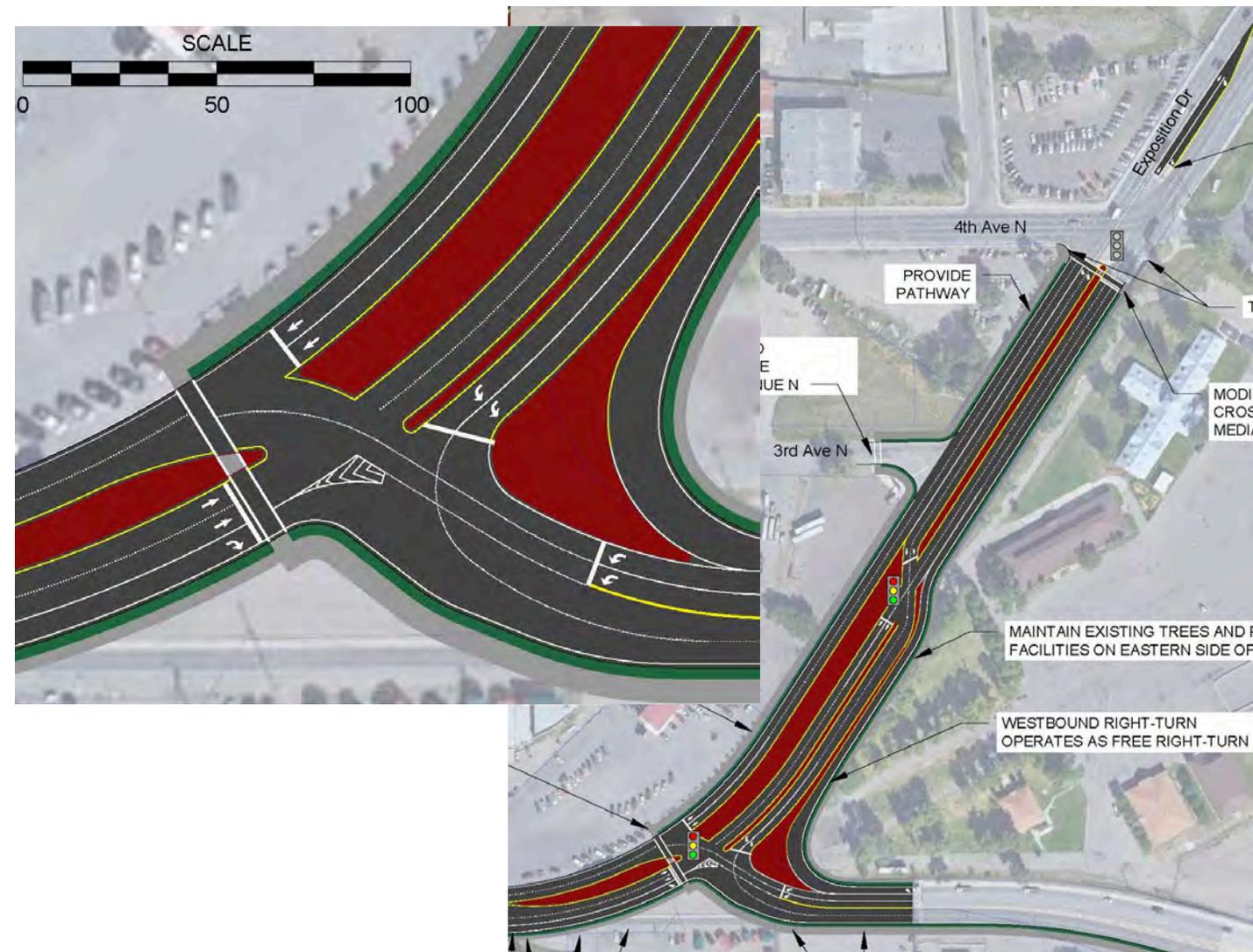


- Modify westbound approach
  - Dual left-turn lanes
  - Dual right-turn lane (signalized)
- Modify northbound right-turn lane
- Add crossings, pathway, and detached sidewalks



# Alternative 6

## Partial Displaced Left-Turn



- Modify intersection for southbound left-turn lanes
- Add free westbound right-turn lane
- Modify northbound right-turn lane
- Add crossings, pathway, and detached sidewalks





# Tier 1 Evaluation Criteria and Results



# Evaluation Results

Criteria	Alt 1 NB	Alt 2 Shared L/R	Alt 3 L/R/R	Alt 4 Free RT	Alt 5 Dual RT	Alt 6 DLT
Safety Performance	Lower	Medium	Medium	Medium	Medium	Medium
Number of Free Right-Turns	1	0	0	1	0	1
Pedestrian Facility Quality	Lower	Medium	Medium	Higher	Higher	Med-to-High
Bicycle Facility Quality	Lower	Medium	Medium	Higher	Higher	Med-to-High
Traffic Operations (2040 AM/PM Peak Hour Level of Service)	C/E	C/E	C/E	C/D	C/D	B/B
Traffic Operations Lifespan (After 2040)	0 years	0 years	0 years	8-12 years	8-12 years	16-20 years
Right-Of-Way Impact	None	Lower	Low-to-Med	Med-to-High	Medium	Higher
Number of Properties Impacted	0	7	8	13	13	13
Design and Construction Cost Estimates	None	Lower	Lower	Medium	Medium	Higher





# Breakout Session – Let's Hear From You!





# Next Steps



# Next Steps

- PAC action—Return comment sheet by Sept 30<sup>th</sup>
- Technical team will...
  - post materials to project website: <https://www.mdt.mt.gov/pubinvolve/expofirst/>
  - evaluate Tier 2 Alternatives
  - continue to meet with business/property owners
  - prepare for open house
- Next PAC Meeting:
  - December (TBD)
    - Results from Tier 2 Analysis
    - Confirm Final Alternative



## Attachment C Comment Forms

# Comment Form

## Project Advisory Committee Meeting #2

Thursday, September 19, 2019

Project ID: NH 16-1(53)0 Control Number: 79080000



Leave your comments with us, mail to Wade Salyards, Project Design Engineer  
 PO Box 20437, Billings, MT 59104-0437, or e-mail to [wsalyards@mt.gov](mailto:wsalyards@mt.gov).

Please submit comments by **Monday, September 30<sup>th</sup>, 2019.**

Name: Billings MPO  
 Address: 2825 3<sup>rd</sup> Ave. N., 4<sup>th</sup> Flr.  
 E-Mail: walkers@billingsmt.gov  
 Phone: 406-247-8661

### 1. Which Tier 1 alternatives do you think should move forward for further evaluation in Tier 2?

Alternative #	Configuration	Move Forward to Tier 2 (circle one)	Additional Comments
1	No-Build	Yes No	
2	Westbound Shared Left/Right-Turn Lane	Yes <input checked="" type="radio"/> No	
3	Single Westbound Left-Turn Lane and Dual Westbound Right-Turn Lanes	Yes <input checked="" type="radio"/> No	
4	Free Westbound Right-Turn Lane	<input checked="" type="radio"/> Yes No	Greatest bike/pedestrian inclusion
5	Dual Westbound Right-Turn Lanes	<input checked="" type="radio"/> Yes ? No	Maybe if peds could be accommodated.
6	Partial Displaced Left-Turn	Yes <input checked="" type="radio"/> No	

-Over-

Has transit been involved?

**2. General Comments**

lockwood expanding/improving sidewalk on north side to bridge - north side improvements would allow these connections to lockwood.

**3. Is there any specific information to assist with selecting a final alternative that you would like for PAC Meeting #3?**

**Thank you for providing comments!**

# Comment Form

## Project Advisory Committee Meeting #2

Thursday, September 19, 2019

Project ID: NH 16-1(53)0 Control Number: 79080000



Leave your comments with us, mail to Wade Salyards, Project Design Engineer  
 PO Box 20437, Billings, MT 59104-0437, or e-mail to [wsalyards@mt.gov](mailto:wsalyards@mt.gov).

Please submit comments by Monday, September 30<sup>th</sup>, 2019.

Name: Tim Goodridge  
 Address: 1413 4<sup>th</sup> Ave N. Ste C.  
 E-Mail: billingsbird@gmail.com.  
 Phone: 272-4321

### 1. Which Tier 1 alternatives do you think should move forward for further evaluation in Tier 2?

Alternative #	Configuration	Move Forward to Tier 2 (circle one)	Additional Comments
1	No-Build	Yes <input type="radio"/> No <input checked="" type="radio"/>	
2	Westbound Shared Left/Right-Turn Lane	Yes <input type="radio"/> No <input checked="" type="radio"/>	
3	Single Westbound Left-Turn Lane and Dual Westbound Right-Turn Lanes	Yes <input type="radio"/> No <input checked="" type="radio"/>	
4	Free Westbound Right-Turn Lane	<input checked="" type="radio"/> Yes <input type="radio"/> No	<i>This one is good too.</i>
5	Dual Westbound Right-Turn Lanes	<input checked="" type="radio"/> Yes <input type="radio"/> No	<i>I like this one as it makes the intersection safer for people &amp; bikes</i>
6	Partial Displaced Left-Turn	Yes <input type="radio"/> No <input type="radio"/>	<i>chews up too much space &amp; is more unsafe for peds &amp; bikes</i>



# Comment Form

## Project Advisory Committee Meeting #2

Thursday, September 19, 2019

Project ID: NH 16-1(53)0 Control Number: 79080000



Leave your comments with us, mail to Wade Salyards, Project Design Engineer  
PO Box 20437, Billings, MT 59104-0437, or e-mail to [wsalyards@mt.gov](mailto:wsalyards@mt.gov).

Please submit comments by Monday, September 30<sup>th</sup>, 2019.

Name: Kristi Drake

Address: PO Box 2416, Billings, MT 59103

E-Mail: kristi@billingsrailnet.org

Phone: 406-690-8876

### 1. Which Tier 1 alternatives do you think should move forward for further evaluation in Tier 2?

Alternative #	Configuration	Move Forward to Tier 2 (circle one)	Additional Comments
1	No-Build	Yes <input type="radio"/> No <input checked="" type="radio"/>	
2	Westbound Shared Left/Right-Turn Lane	Yes <input type="radio"/> No <input checked="" type="radio"/>	
3	Single Westbound Left-Turn Lane and Dual Westbound Right-Turn Lanes	Yes <input type="radio"/> No <input checked="" type="radio"/>	
4	Free Westbound Right-Turn Lane	<input checked="" type="radio"/> Yes <input type="radio"/> No	Simplest for all travelers: autos, bikes and pedestrians Gives autos freedom to travel when there are no pedestrians waiting to cross 1st Ave N. →
5	Dual Westbound Right-Turn Lanes	Yes <input type="radio"/> No <input checked="" type="radio"/>	
6	Partial Displaced Left-Turn	Yes <input type="radio"/> No <input checked="" type="radio"/>	

## 2. General Comments

Alternative 4 provides the most safety for bicyclists and pedestrians with a larger median in the northeast area of the 1<sup>st</sup> & Expo intersection.

It is also helpful to drivers heading north from the east because the turn is not signalized and prevents the wait for nothing. There may be few pedestrians waiting to cross most of the day unless there is an event at Metra Park.

Great job! I'm impressed 😊

## 3. Is there any specific information to assist with selecting a final alternative that you would like for PAC Meeting #3?

Thank you for providing comments!

# Comment Form

## Project Advisory Committee Meeting #2

Thursday, September 19, 2019

Project ID: NH 16-1(53)0 Control Number: 79080000



Leave your comments with us, mail to Wade Salyards, Project Design Engineer  
 PO Box 20437, Billings, MT 59104-0437, or e-mail to [wsalyards@mt.gov](mailto:wsalyards@mt.gov).

Please submit comments by **Monday, September 30<sup>th</sup>, 2019.**

Name: Mike Black PE Yellowstone County Civil Engineer  
 Address: 4411 Toyon Dr Billings MT 59106  
 E-Mail: mblack@co.yellowstone.mt.gov  
 Phone: 406.256.2735

### 1. Which Tier 1 alternatives do you think should move forward for further evaluation in Tier 2?

Alternative #	Configuration	Move Forward to Tier 2 (circle one)	Additional Comments
1	No-Build	Yes No	
2	Westbound Shared Left/Right-Turn Lane	Yes No	
3	Single Westbound Left-Turn Lane and Dual Westbound Right-Turn Lanes	Yes No	
4	Free Westbound Right-Turn Lane	Yes No	
5	Dual Westbound Right-Turn Lanes	Yes No	
6	Partial Displaced Left-Turn	<input checked="" type="radio"/> Yes No	Get longer life expectancy is less disruption to traffic flow. Basically we get 2 project life spans with one disruption construction project.

**2. General Comments**

*Very thorough.*

*Very good presentation - thought out, well presentation*

**3. Is there any specific information to assist with selecting a final alternative that you would like for PAC Meeting #3?**

**Thank you for providing comments!**

# Comment Form

## Project Advisory Committee Meeting #2

Thursday, September 19, 2019

Project ID: NH 16-1(53)0 Control Number: 79080000



Leave your comments with us, mail to Wade Salyards, Project Design Engineer  
PO Box 20437, Billings, MT 59104-0437, or e-mail to [wsalyards@mt.gov](mailto:wsalyards@mt.gov).

Please submit comments by Monday, September 30<sup>th</sup>, 2019.

Name: Eric Schnelbach  
Address: Schnelbache@billings.mt.gov  
E-Mail: 220 N 27<sup>th</sup> St  
Phone: 657-8460

### 1. Which Tier 1 alternatives do you think should move forward for further evaluation in Tier 2?

Alternative #	Configuration	Move Forward to Tier 2 (circle one)	Additional Comments
1	No-Build	Yes    No	
2	Westbound Shared Left/Right-Turn Lane	Yes <input checked="" type="radio"/> No	
3	Single Westbound Left-Turn Lane and Dual Westbound Right-Turn Lanes	Yes <input checked="" type="radio"/> No	Query problems for left turn onto <del>1st</del>
4	Free Westbound Right-Turn Lane	<input checked="" type="radio"/> Yes    No	solves the query problem for NB right and adds an extra lane on Expo
5	Dual Westbound Right-Turn Lanes	Yes <input checked="" type="radio"/> No	Concerned about potential no right on red for the dual WB right-turn lanes
6	Partial Displaced Left-Turn	<input checked="" type="radio"/> Yes    No	would be great if there are no query / timing issue on expo - also might don't left turn from Expo to 6 <sup>th</sup> Ave N

**2. General Comments**

- would like to see the free right-turn in all plans
- provide extra storage space for left turns onto 1<sup>st</sup> Ave N from Expo

**3. Is there any specific information to assist with selecting a final alternative that you would like for PAC Meeting #3?**

**Thank you for providing comments!**

# Comment Form

## Project Advisory Committee Meeting #2

Thursday, September 19, 2019

Project ID: NH 16-1(53)0 Control Number: 79080000



Leave your comments with us, mail to Wade Salyards, Project Design Engineer  
 PO Box 20437, Billings, MT 59104-0437, or e-mail to [wsalyards@mt.gov](mailto:wsalyards@mt.gov).  
 Please submit comments by Monday, September 30<sup>th</sup>, 2019.

Name: ERIN CLAUNCH

Address: 2224 MONTANA AVE.

E-Mail: claunche@billingsmt.gov

Phone: 406-657-8242

### 1. Which Tier 1 alternatives do you think should move forward for further evaluation in Tier 2?

Alternative #	Configuration	Move Forward to Tier 2 (circle one)	Additional Comments
1	No-Build	<input checked="" type="radio"/> Yes <input type="radio"/> No	COMPARISON
2	Westbound Shared Left/Right-Turn Lane	<input type="radio"/> Yes <input checked="" type="radio"/> No	DOESN'T SEEM TO SOLVE THE PROBLEM.
3	Single Westbound Left-Turn Lane and Dual Westbound Right-Turn Lanes	<input type="radio"/> Yes <input checked="" type="radio"/> No	.. .. .. ..
4	Free Westbound Right-Turn Lane	<input checked="" type="radio"/> Yes <input type="radio"/> No	
5	Dual Westbound Right-Turn Lanes	<input checked="" type="radio"/> Yes <input type="radio"/> No	
6	Partial Displaced Left-Turn	<input checked="" type="radio"/> Yes <input type="radio"/> No	

2. General Comments

PLEASE MAKE SURE ALL FUTURE ALTERNATIVES  
HAVE THE CAPABILITIES TO CONNECT A 4<sup>TH</sup> LEG  
TO 2<sup>ND</sup> AVENUE NORTH.

3. Is there any specific information to assist with selecting a final alternative that you would like for PAC Meeting #3?

Thank you for providing comments!