YELLOWSTONE COUNTY BOARD OF PLANNING
CITY OF BILLINGS AND YELLOWSTONE COUNTY, MONTANA

AGENDA

May 10, 2016 MEETING TIME: 6:00 p.m.
1st Floor Large Conference Room, Miller Building
2825 3rd Avenue North, Billings, Montana 59101

1. **CALL TO ORDER - Planning Board President:** Welcome and Introduction of new and returning Board Members.

2. **APPROVAL OF AGENDA* -** including any additions or deletions to agenda. The agenda for a regular meeting will be closed at 5:00 p.m. three (3) working days prior to the date of the meeting.

3. **MOTION. MEETING MINUTES** :APRIL 26, 2016

4. **PUBLIC COMMENT PERIOD** – As required (3 minute maximum per person). *Any member of the public may be heard on any subject that is not on the agenda. The Planning Board will not take any action on these items at this time, but could choose to add an item to the next meeting's agenda for discussion.*
   4a) Comments on items not on agenda and requests to add items to future agendas
   4b) Comments on items on the non-public hearing agenda items

5. **DISCLOSURE OF CONFLICT OF INTEREST**:

6. **DISCLOSURE OF EX PARTE COMMUNICATION**: Ex Parte Communication Binder is available at the Sign-In and Agenda station.

7. **OLD BUSINESS** (Agenda items that were not discussed or not completed in a previous meeting or items requiring action).

8. **NEW BUSINESS:** (Agenda items new to this meeting).

a. **PRESENTATION/DISCUSSION. RIMROCKS TO VALLEY BIKE/PED FEASIBILITY STUDY.** SCOTT WALKER, TRANSPORTATION COORDINATOR.

Rimrocks To Valley Bike and Pedestrian Trail Feasibility Study

The Rimrocks to Valley Trail Feasibility Study will evaluate alternatives for the development of separated bicycle and pedestrian facilities from Highway 3 atop the Rimrocks to existing bicycle and pedestrian facilities below (Rimrock Road, etc.) from 27th Street to Zimmerman Trail. The ***Draft*** Rimrocks to Valley Bike/Pedestrian Feasibility Study is now available for review. Click ***here***. Interested in the Rimrocks to Valley Bike/Pedestrian Trail Feasibility Study?

Information can be found here: http://sandersonstewart.com/projects/rimstovalley/

Attachments

Rims_to_Valley Report_Final Draft

Rims_to_Vallye Rw Sch

b. **PRESENTATION/DISCUSSION. WEST END MULTI-MODAL TRAFFIC MODELING STUDY.** Scott Walker, Transportation Coordinator.

West End Multi-Modal Planning Study

In recent years, land development in the region of Billings that lies west of Shiloh Road has brought about an increase in traffic volumes that directly impacts safety, traffic operations and access. As more and more rooftops are constructed in this area, demand for pedestrian and bicycle facilities to support multi-modal transportation options is also rapidly increasing. The intent of this study is to provide the City of Billings and Yellowstone County with a tool for planning improvement projects to meet the demands of a vibrant and growing region of our great City. The ***Draft*** West End Multi-Modal Planning Study is now available for review. Click ***here.*** Information can be found here:

Information can be found here: http://sandersonstewart.com/projects/westend/

Attachments

Westend Study Rw Schedule

c. **PLAT REVIEW DISCUSSION. WEST KING SUBDIVISION LTS 6-7 BLOCK 4.** Dave Green, Planner II, presenting.

Attachments

Findings of Fact

Proposed site plan

Entire Westfield Warehouse site

Aerial View

d. **PLAT REVIEW DISCUSSION. EMMA JEAN HEIGHTS SUBDIVISION, 3'RD FILING**. Dave Green, Planner II, presenting.

Attachments

Findings of Fact

Proposed Plat

Master Plan

Aerial View

9. **OTHER BUSINESS:**

a. (Standing Item) Staff update. Long Range Strategic Issues and an overview of future City and County issues and projects.

10. **ADJOURNMENT**

FUTURE AGENDA ITEMS FOR TUESDAY, MAY 24, 2016

a. **PUBLIC HEARING. MOTION/RECOMMENDATION TO BOCC. WEST KING SUBDIVISION LTS 6-7 BLOCK 4.** Dave Green, Planner II, presenting.

b. **PUBLIC HEARING. MOTION/RECOMMENDATION TO CITY COUNCIL. EMMA JEAN HEIGHTS SUBDIVISION, 3'RD FILING**. Dave Green, Planner II, presenting.

c. **PUBLIC HEARING. MOTION/RECOMMENDATION. RIMROCKS TO VALLEY BIKE/PED FEASIBILITY STUDY.** SCOTT WALKER, TRANSPORTATION COORDINATOR

d. **PUBLIC HEARING. MOTION/RECOMMENDATION. WEST END MULTI-MODAL TRAFFIC MODELING STUDY.** Scott Walker, Transportation Coordinator.

e. **PRESENTATION/DISCUSSION. CITY OF BILLINGS GROWTH POLICY-BILLINGS & BEYOND.** CANDI MILLAR, DIRECTOR, PRESENTING.

CITY/COUNTY PLANNING BOARD
1st Floor Large Conference Room, Miller Building
2825 3rd Avenue North, Billings, Montana 59101

Public Hearing Participation Guidelines

The County Planning Board welcomes public input on matters brought before the Board. To ensure a fair and effective public comment process, we ask that you consider the following guidelines when presenting your comments: **Address the Planning Board directly. You must state your name and address before commenting**. This is an opportunity to explain how you will be affected by the decision and why that is an important consequence.

1. Be informed of the process and the requirements of the Board. If you are commenting about a subdivision, please limit your comments to the review criteria.

   By state law, the Planning Board must consider only certain criteria when reviewing subdivisions (76-3-608(a), MCA). These criteria include:

   -Effect on agriculture and agricultural water user facilities

   -Effect on local services

   -Effect on the natural environment

   -Effect on wildlife and wildlife habitat

   -Effect on public health and safety

2. Provide specific information about why you are concerned about the pending application, how the decision will impact the review criteria listed above, and provide suggestions on how to minimize or eliminate the impact.

3. Respect the right of others to participate. Wait until the previous speaker has completed their comments before making your own comments. Do not talk over the person commenting or with other people in attendance.

4. The public hearing is not an opportunity to question or accuse the applicant or their agent. If you have questions of the Board, the applicant or the agent, ask the question directly to the Board during the public hearing portion of the meeting. The Board will respond or request the applicant or agent to respond after the public comment portion of the hearing is closed.

5. After the public comment portion of the hearing is closed, no further comments are allowed unless you are addressed directly by a Board member.

6. You should expect the Board to make a balanced recommendation in accordance with its statutory responsibilities. The Board's ability to make reasonable and thoughtful recommendations is dependent on a fair consideration of everyone's interests.

Thank you for participating.

Planning Board Meeting I (2nd Tuesday) **8. a.**

Meeting Date: 05/10/2016

Information

Subject

PRESENTATION/DISCUSSION. RIMROCKS TO VALLEY BIKE/PED FEASIBILITY STUDY. SCOTT WALKER, TRANSPORTATION COORDINATOR.

Rimrocks To Valley Bike and Pedestrian Trail Feasibility Study

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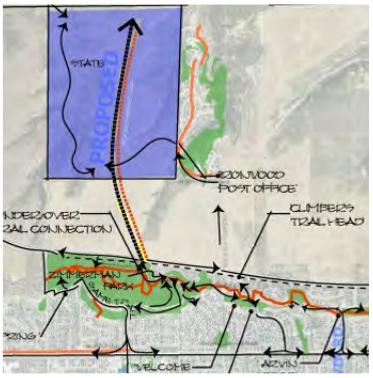
Rims_to_Valley Report_Final Draft

Rims_to_Vallye Rw Sch

RIMROCKS TO VALLEY

BIKE|PED FEASIBILITY STUDY



DRAFT REPORT

APRIL 2016

SANDERSON STEWART

ACKNOWLEDGEMENTS

The Rimrocks to Valley Bike/Pedestrian Feasibility Study was conducted under the direction of the Project Oversight Committee, which included the members listed below. Along with the input of numerous community members, the guidance of the Project Oversight Committee has been essential to the success of this process and is very much appreciated.

Project Oversight Committee

Wyeth Friday, City-County Planning Division

Scott Walker, City-County Planning Division

Lora Mattox, City-County Planning Division

Jeffrey Butts, City-County Planning Division

Jared Le Fevre, Billings Chamber of Commerce

Jim Downs, Billings TrailNet

Mark Jarvis, City Parks & Recreation

Alan Woodmansey, Federal Highway Administration

Katie Potts, MDT Planning

Lyle Gabrian, Rimrock Neighborhoods Task Force

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INTRODUCTION

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The Billings Metropolitan Planning Organization (MPO) has identified the need to study the feasibility and to evaluate alternatives for the development of separated bicycle and pedestrian facilities from Highway 3 atop the Rimrocks to existing bicycle and pedestrian facilities below. The Rimrocks are a geological sandstone formation that form an approximately 300-foot high cliff that frames the north side of Billings, Montana. The study area for the feasibility study is bound by Highway 3 on the north, Rimrock Road on the south, Zimmerman Trail on the west and North 27th Street on the east.

The following report summarizes the planning process that evaluated these bike and pedestrian route alternatives, including identification of the potential routes, recommended design features, and the public process that was conducted to gain valuable input on each of these items.

Study Area Description

One or more bike and pedestrian connections from the Rims to the Valley would provide neighborhood connectivity and access to both transportation commuters and recreational users. In addition, the City of Billings, with support and encouragement from Billings TrailNet and the Billings Chamber of Commerce Trails Committee, has been focused on the development of the Marathon Loop Trail in recent years. When all missing links are completed, this trail will form an approximately 26-mile loop around Billings with an almost entirely off-street trail system. This feasibility study evaluates alternatives for the portion of the loop that would create a connection from the top of the Rimrocks to the bottom.

Figure 1 on the following page shows the study area for the Rimrocks to Valley Bike/Pedestrian Feasibility Study and how it relates to the proposed Marathon Loop.

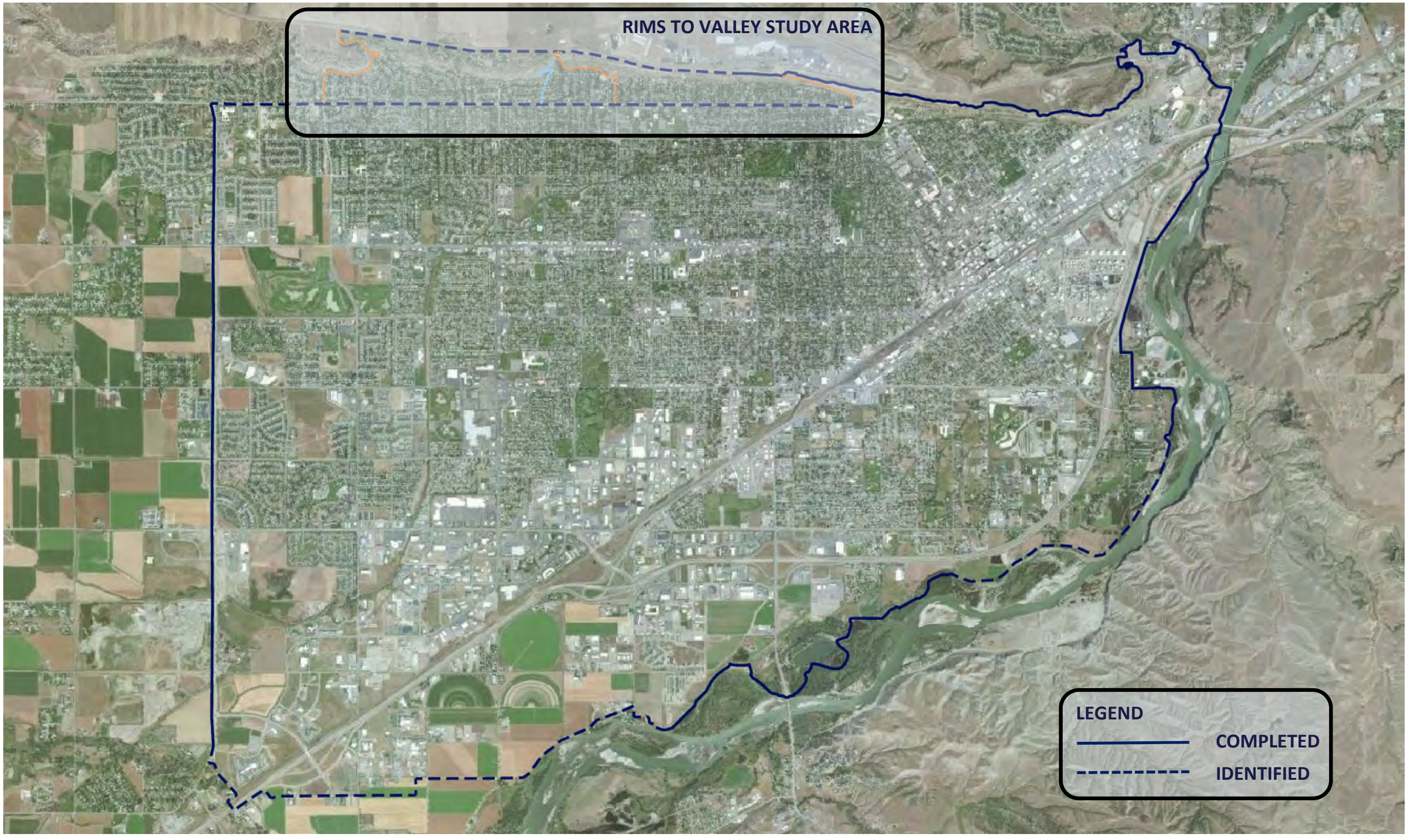


FIGURE 1 – STUDY AREA RELATIVE TO MARATHON LOOP

Goals & Objectives

The Rimrocks to Valley Bike/Pedestrian Feasibility Study provides an evaluation of bike and pedestrian route alternatives from the top to the bottom of the Rimrocks. The following objectives were outlined by the Project Oversight Committee at the onset of the study.

1. Identify routes that safely convey bicyclists and pedestrians addressing the needs of both recreational users and commuters.
2. Evaluate the feasibility of achieving ADA compliance.
3. Identify access points and place-making opportunities.
4. Consider the unique geology of the Rimrocks in the evaluation of alternatives.
5. Maintain consistency with existing community plans.
6. Identify and engage all relevant stakeholders, particularly the Rimrock neighborhoods.
7. Enhance recreational and aesthetic opportunities from atop the Rims.
8. Provide a key connection within the proposed 26-mile marathon loop trail around Billings.
9. Develop a prioritized list of short-term and long-term projects.

Public Participation Process

A thorough public participation process was conducted for the Rimrocks to Valley Bike/Pedestrian Feasibility Study in conformance with the 2009 Yellowstone County Board of Planning Participation Plan.

The following meetings were conducted as part of the plan development:

- **Project Oversight Committee Meetings** were held monthly to guide the direction of the feasibility study and a walking tour with the POC was held at the onset of the project.
- **Neighborhood Meetings** were held on October 13 and 14, 2015 adjacent to the proposed trail routes to discuss design concepts, ideas and concerns of nearby property owners.
- A **Rimrock Neighborhoods Task Force** meeting was attended on October 21, 2015 and a project overview was provided.
- **Public Meeting No. 1** was held on December 2, 2015 to introduce the feasibility study and identify issues important to stakeholders.
- **Public Meeting No. 2** was held on February 3, 2016 to present the route alternatives and request input on various access points and amenities for each route.

The following additional public meetings will be held for review and approval of the feasibility study, the dates of which are to be determined:

- **Technical Advisory Committee**
- **Yellowstone County Board of Planning (Public Hearing)**
- **Billings City Council**
- **Yellowstone County Commission**
- **Policy Coordinating Committee**

A project website was developed as a location to post draft documents for review and as a tool to request additional public input. The web address is www.sandersonstewart.com/projects/rimstovalley.

The draft and final document will also be posted on the City of Billings website at http://ci.billings.mt.us/index.aspx?NID=2336.

Related Projects

Highway 3 Corridor Study. Completed in 2015, the Highway 3 Corridor Study addresses current vehicle and non-motorized traffic circulation and access along the corridor, as well as plans for future changes to traffic patterns caused by the Inner Belt Loop connection and development activity. Recommendations consisted of several projects that relate to the Rims to Valley Feasibility Study, including a multi-use pathway that extends from North 27th Street to Apache Trail, a roundabout and grade separated crossing at the Highway 3/Zimmerman Trail intersection, and parking/trailhead facilities along Highway 3.

Zimmerman Trail. The City of Billings recently completed a rock fall mitigation project on Zimmerman Trail and they are currently designing additional improvements to the roadway and surrounding areas in coordination with the Montana Department of Transportation (MDT). Design alternatives were still being considered at the time of this study, but it is anticipated that they will generally consist of wider shoulders, stormwater improvements and slope stabilization. MDT has also recently nominated an intersection improvement project with safety funds for the installation of a roundabout at Zimmerman Trail and Highway 3.

Inner Belt Loop. The Inner Belt Loop is a proposed rural bypass roadway project that will provide a new connection between the Heights and West End regions of Billings. The south terminus of the new road has been proposed at the existing intersection of Highway 3 and Zimmerman Trail, but other options are still being considered. Alignment alternatives and intersection improvements were evaluated in the 2006 Inner Belt Loop Connection Planning Study and the 2010 Inner Belt Loop Design Traffic Report. Recommendations include a multi-use pathway along the east/south side of the roadway.

Billings Urban Area Long Range Transportation Plan. The 2014 transportation plan identifies long-range transportation projects in the area. It identifies improvements along Zimmerman Trail and the proposed Inner Belt Loop, as well as a future connection between Highway 3 and Molt Road.

Billings Area Bikeway & Trail Master Plan. This plan outlines a proposed short-range, on-street bike lane along Highway 3 east of Rod & Gun Club Road and a long-range bike lane west of this intersection. The plan also identifies proposed short-range bike lanes on North 27th Street, Airport Road and Zimmerman Trail, as well as long-range bike lanes on Rod & Gun Club Road and the Inner Belt Loop. The plan also identifies several existing primitive/unimproved trails around the Rimrocks.

ROUTE ALTERNATIVES

2

The study area for this project is approximately 3 miles in length measured from east to west. Although it's fairly vast, the terrain is very steep and there are really only a very small number of locations where a route from the top to the bottom of the Rims is even possible. The project team was aware of these possible routes from past projects and our own recreational experiences in the area, but these potential routes were further explored with the Project Oversight Committee during a walking tour held early in the project process.

The following paragraphs provide a summary of the four route alternatives identified. These routes are also illustrated in Figure 2 on page 7.

Alternative 1: Stagecoach Trail

Referred to as the Stagecoach Trail, the first route alternative is adjacent to Zimmerman Trail, a two lane roadway that traverses from the bottom to the top of the Rimrocks at the western boundary of the study area. This roadway is steep and narrow and does not provide a safe on-street facility for bikes and pedestrians. The Zimmerman Trail right-of-way is owned and maintained by the City of Billings. The City of Billings and MDT have a design project currently underway for reconstruction of Zimmerman Trail and a separate project for the design of a roundabout at the intersection of Zimmerman Trail and Highway 3. The proposed trail along this route would be located along the east side of the roadway and would be placed below the grade of the road along the roadside slope.

Alternative 2: Myers Trail

The second route alternative would follow an existing natural trail known as the Myers Trail. It runs from the north end of Country Club Circle below the Rims and traverses up to the top of the Rims just east of Sky Ranch Condominiums. This trail was at one time a private driveway used to access the old Myers family home on top of

the Rims. The terminus of the Myers Trail at the top of the Rims coincides well with one of the trailheads/parking areas recommended in the Highway 3 Corridor Study.

This is an existing trail that is used often, but the current alignment crosses private property at the south end and it has some challenging sections that may be difficult for some users.

Alternative 3: Morledge Trail

The third alternative is the Morledge Trail. This route begins at the north end of 17th Street West and routes west through property owned by City of Billings Public Works. Just north of the large water tank on this property, the trail would transition onto private property owned by the Morledge family. The trail would be located toward the south side of their property and would route up and around a couple of coulees before transitioning back to public property. The trail would then need to cross a large coulee area, possibly with a boardwalk type of structure, as it ramps up toward the top of the Rims and ends in approximately the same location as the Myers Trail at the top.

The Morledge property is undeveloped and is approximately 10 acres in size. The project team has had several conversations with the Morledge family through this process and they have stated their approval of the proposed trail location and their willingness to grant a trail easement.

Alternative 4: 27th Street Trail

The final route alternative considered in this study runs along North 27th Street. It would begin near the existing trail underpass at the intersection of North 27th Street/Highway 3/Airport Road and would continue to the southeast along North 27th Street. It would be located behind the existing guard rail on the south side of the roadway. Right-of-way is limited around the ramp that curves around to Rimrock Road, so the proposed trail would instead route through public property and connect to the north end of Yucca Street.

It appears that there is existing width available on North 27th Street to consider an on-street option for bicycles as well. Both bikes and pedestrians could use the off-street multi-use trail, but bikes will likely be traveling at a fairly high speed when going downhill. In this case, a safer option may be to consider separate facilities for bikes and pedestrians. On-street bike lanes in this location would require restriping on North 27th Street and approval to do so would be needed from MDT. If possible, a 3-foot striped buffer would be ideal for this alternative in order to provide greater separation between the bike lane and the outside travel lane.

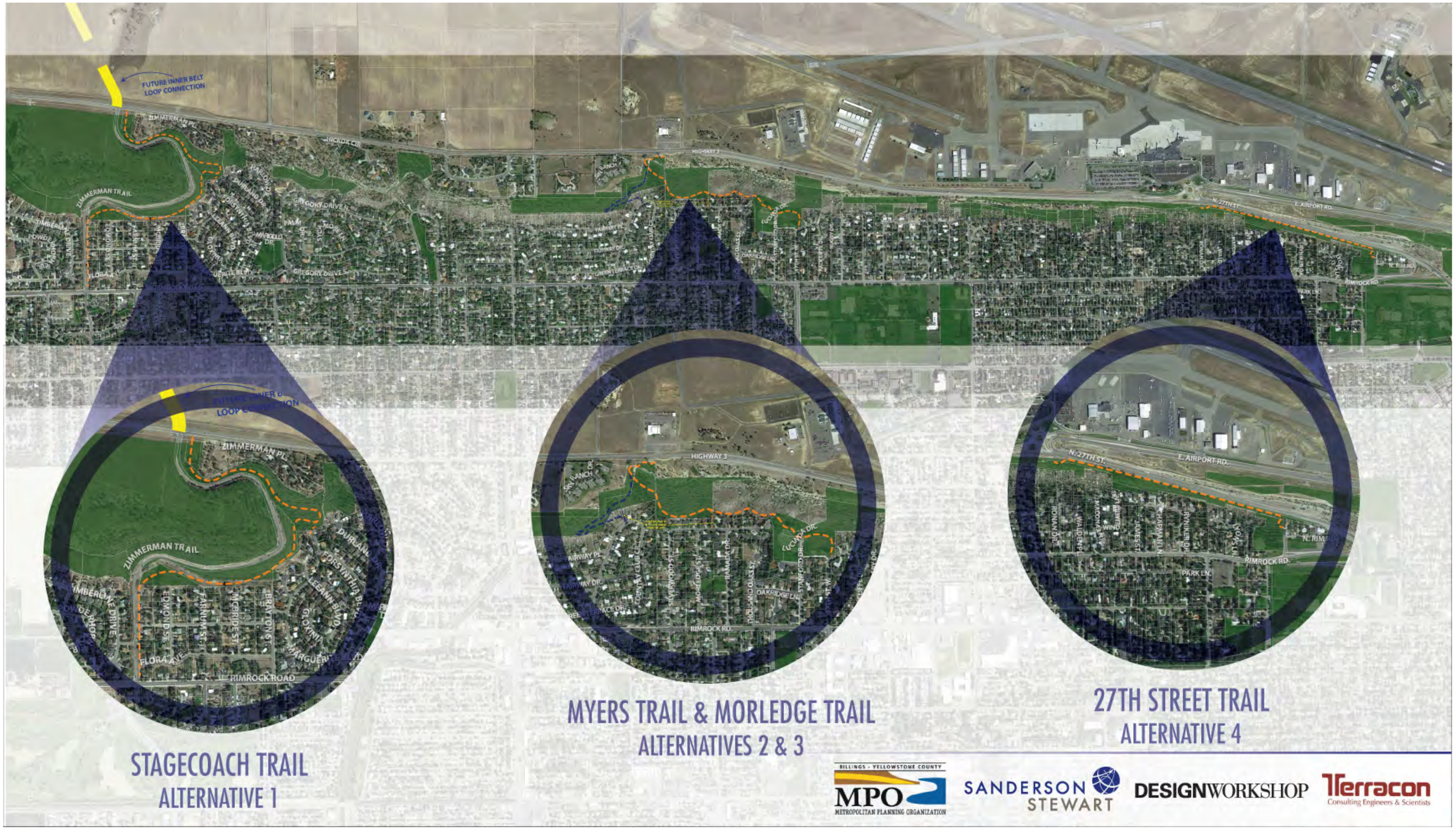


FIGURE 2 – ROUTE ALTERNATIVES

RECOMMENDED IMPROVEMENTS

3

A preliminary design of each of the four route alternatives was completed in order to evaluate slopes, consider different surfacing options, and ultimately to provide a well-vetted opinion of probable cost for each alternative. The following section provides an overview of those considerations.

Design Features

The development of this feasibility study began with 3-D laser scanning of the Rim face within the areas identified for the four potential route alternatives. The resulting scan data was then reduced into AutoCAD format for the development of base drawings for preliminary design. A trail alignment was then drafted for each of four alternatives including a preliminary design in plan and profile view in order to determine the best fit available for both horizontal and vertical alignment. The resulting plan and profile sheets are provided in Appendix A.

Longitudinal Slope

One of the primary goals of this study was to evaluate the feasibility of achieving compliance with the Americans with Disabilities Act (ADA) design standards, primarily as they relate to longitudinal slopes. The maximum longitudinal slope for ADA compliance is generally considered to be 5%. Although some guidelines allow for steeper slopes for short distances as long as level landing areas are provided in between.

Considering the challenging terrain of the Rimrocks, and as can be seen by the profiles in Appendix A, it was clear that we would not be able to meet these traditional slope standards with any of the four routes being evaluated. This is a concern because the federal funding sources often used for trail design and construction require ADA compliance. However, after further research and discussions with the Federal Highway Administration (FHWA), it is our assessment that although the routes may not be considered "ADA accessible," they could be considered "ADA compliant" to the extent practicable and could therefore still be considered eligible for federal funding. They will likely require additional documentation during design to support the exceptions to ADA standards and show that ADA compliance is not practicable due to terrain.

There are many different guidelines available and the determination of which standards to use can depend on how the routes are designated: trails, access routes, paths, etc. The guidelines that were considered most applicable to this particular situation include the following:

- US Access Board's Architectural Barriers Act (ABA) standards (Sections 1016, 1017 and 1019), which discuss outdoor recreation access routes and trails - https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-aba-standards/aba-standards/chapter-10-recreation-facilities
- FHWA's Best Practices Design Guide (Chapters 14 and 15) - http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalk2/sidewalks214.cfm
- Proposed Public Rights-of-Way Accessibility Guidelines (PROWAG) - https://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/proposed-rights-of-way-guidelines

Although the Stagecoach and 27th Street alternatives may be at least partially located within highway right-of-way, the PROWAG standards do not adequately address the unique challenges associated with terrain on these routes. Therefore, it is our assessment that documentation of conditions for exceptions outlined in the other documents, namely "Compliance is not practicable due to terrain," would adequately address ADA compliance.

Surfacing

ADA compliant routes are also traditionally considered to have a paved surface, either asphalt or concrete. However, the ABA standards referenced above state that surfaces "shall be firm and stable," but are not necessarily required to be paved. If snow removal during winter months is not considered a necessity, then firm and stable surfaces do not need to be paved surfaces. Shared-use paths are generally paved with asphalt or concrete, but may also use prepared surfaces such as crushed stone or soil stabilizing agents mixed with native soils or aggregates. It's possible that an asphalt surface may not hold up very well within the direct vicinity of the Rimrocks and a natural surface would allow for more flexibility in terms of fixing problem areas (heaving and settling) that will be inherent in this terrain. The selected surface should be fitting of the landscape and easy to maintain.

There is a strong desire by the Chamber Trail Committee to eventually promote the Marathon Loop as a destination for running events that would draw athletes from throughout the Country. To that end, they are encouraging the use of asphalt or crushed rock surfaces, rather than concrete, because runners prefer the softer surfaces.

There is one location along the Morledge Trail alternative where a boardwalk may be used to "bridge" the coulee area at the west end and limit impacts to the natural drainage and terrain. This boardwalk would need to be constructed with the longitudinal slope needed to climb to the top of the Rims in this location. A variety of materials are available for construction of the boardwalk (i.e. wood, concrete, plastic, and steel). All of these materials should be considered "firm and stable" by the ABA standards noted above.

Railings

There are many locations where the terrain would also require trail construction with steep side slopes. The designs shown in Appendix A include side slopes steeper than 3:1 (vertical to horizontal) in many locations in order to avoid impacts to adjacent properties associated with long catch slopes. It has been assumed that a combination of slope stabilization (e.g. retaining walls) and railings would be required in these locations. Railings and other built

structures would be designed to utilize textures, colors, and materials that fit the surrounding context of the trail. Construction of these elements could include the use of natural materials, steel and concrete with natural color or self-weathering finishes, steel and concrete with standard finishes, or a combination thereof.

Geology of the Rimrocks

Another important design consideration in this feasibility study is the geology of the Rimrocks. There has been a history of rock fall hazards and drainage concerns that could potentially be exacerbated with new infrastructure improvement projects if not planned for accordingly. Terracon, a geotechnical engineering firm with extensive experience working in and around the Rimrocks, provided valuable input on this feasibility study. Their report is provided in Appendix B. It provides a summary of potential geologic concerns associated with each of the four route alternatives along with the potential mitigation required.

The primary concern raised by Terracon is associated with the Stagecoach Trail and the segment that follows the base of the cliff directly above Forsythia Boulevard in particular. This is a rockfall area that should either be avoided or mitigated in some way. Terracon is part of the consultant team working on the Zimmerman Trail project, including the bid alternate for the trail. This allows for good coordination between this feasibility study and the upcoming design effort.

Before and After Graphics

The following illustrations demonstrate how the possible future alignments could be woven into the existing landform of the Rimrocks. While not intended to be an exact representation of the future, they serve to help visualize some of the key aspects related to each trail alignment including how they integrate into the dramatic topography, trailhead locations, connections to other trails, and points of interest/scenic overlooks. The four views reveal the general nature of each alignment and their relationship to the Rimrocks and surrounding neighborhood context. More detailed programming and design for each of the alignments would occur in the future when funding was available for construction.

FIGURE 3 – STAGECOACH TRAIL – BEFORE AND AFTER

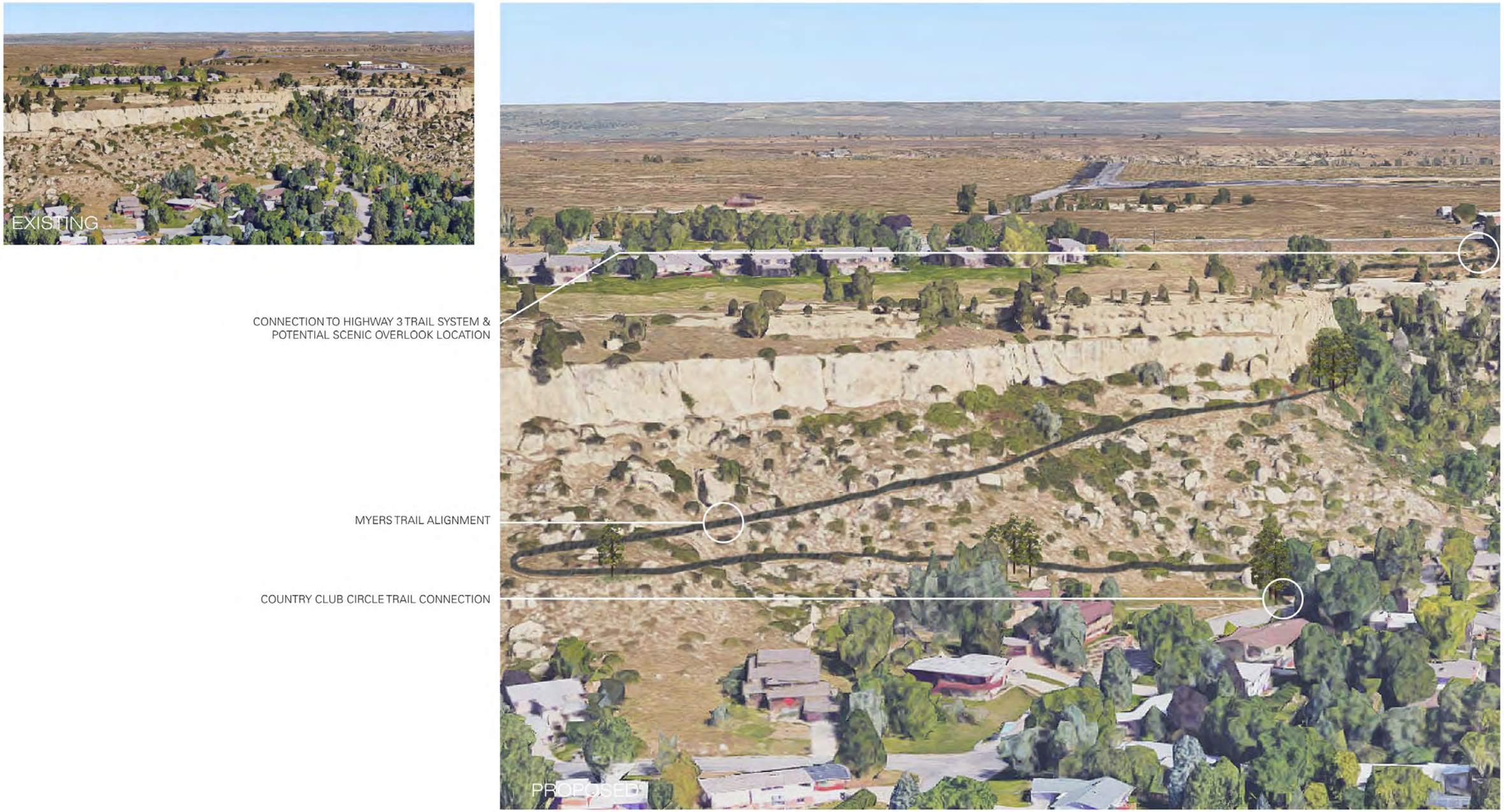


FIGURE 4 - MYERS TRAIL – BEFORE AND AFTER

FIGURE 5 - MORLEDGE TRAIL – BEFORE AND AFTER

FIGURE 6 - 27TH STREET TRAIL – BEFORE AND AFTER

FIGURE 7 - 27TH STREET ON-STREET CONCEPT

Trailheads

The nature of the trailhead amenities at each potential trail access point can range in the level of improvements from very low intensity such as a simple sign/trail marker to more high intensity trailhead options with parking and other facilities. The following classifications describe potential trailhead improvements that build from low to high intensity. Different treatments and combinations of the amenities can be explored in later design phases to suit the range of needs and character of the locations along the potential alignments.

- **Low Intensity or Trail Access Point**
  - Simple trail signage/wayfinding. No formal parking or other amenities.
- **Medium Intensity or Minor Trailhead**
  - Potential amenities include parking for 3-5 cars, signage kiosk, trash receptacles, seating, bike racks, etc.
- **High Intensity or Major Trailhead**
  - Potential amenities include parking for 5-15 cars, shade structures, picnic tables, restrooms, etc.

The community engagement process revealed the stakeholders' preferences for the level of intensity desired for each distinct location. Figure 8 on the following page summarizes the polling results from the second public meeting and identifies high, medium and low intensity trailhead locations. Participants generally supported more high intensity or major trailheads along the top of the Rimrocks in conjunction with proposed trail and parking improvements along Highway 3. Lower intensity treatments were preferred for most of the other locations, especially those that were situated in residential neighborhoods. The location along the Stagecoach Trail near the southern end of Zimmerman Park received a mixed response divided between the high, medium and low options. At the moderate and high intensity trailheads, participants were most interested in including amenities such as signage and wayfinding, trash receptacles/dog waste stations, and restrooms.

Place-making Opportunities

The feasibility study identifies several opportunities for place-making and scenic viewpoints that take advantage of the Rimrocks' dramatic and unique topography. In these locations, the user experience can be enhanced by integrating standard amenities with custom elements tailored to celebrate and communicate information about the Rimrocks geology, vegetation, and cultural history. Similar to trailheads, amenities at scenic viewpoints can range from simple educational or directional signage to more elaborate overlooks or shade structures.

Stakeholder input showed a preference for lower intensity amenities such as interpretive signage at key locations along the trails or medium intensity elements including kiosks and seating opportunities. Higher intensity features such as large shade structures were not as well supported.

Two important place-making opportunities were identified in the study that could substantially enhance the overall trail experience. The first is located at the top of the Rims near where the Myers and Morledge trails intersect. This area also coincides with proposed parking and trailhead improvements identified in the Highway 3 Corridor Study completed in 2014. A relatively large flat bench in the steep topography creates an excellent zone for picnic and seating areas that would be easily accessible from the nearby parking area along Highway 3. Scenic views down the coulee and out over the city of Billings are also quite striking in this location.

Another opportunity for place-making is near the top of the 27th Street Trail alignment at the junction with the Swords Park Trail underpass. This is an important trail connection and adds to the multi-use capacity of the proposed improvements. The Swords Park Trail continues from this point east to connect with another parking and trailhead location along Airport Road. This location currently acts as an entrance into the community and a significant overlook structure would add to the distinct sense of arrival.

FIGURE 8 - COMMUNITY POLLING PREFERRED TRAILHEAD INTENSITY

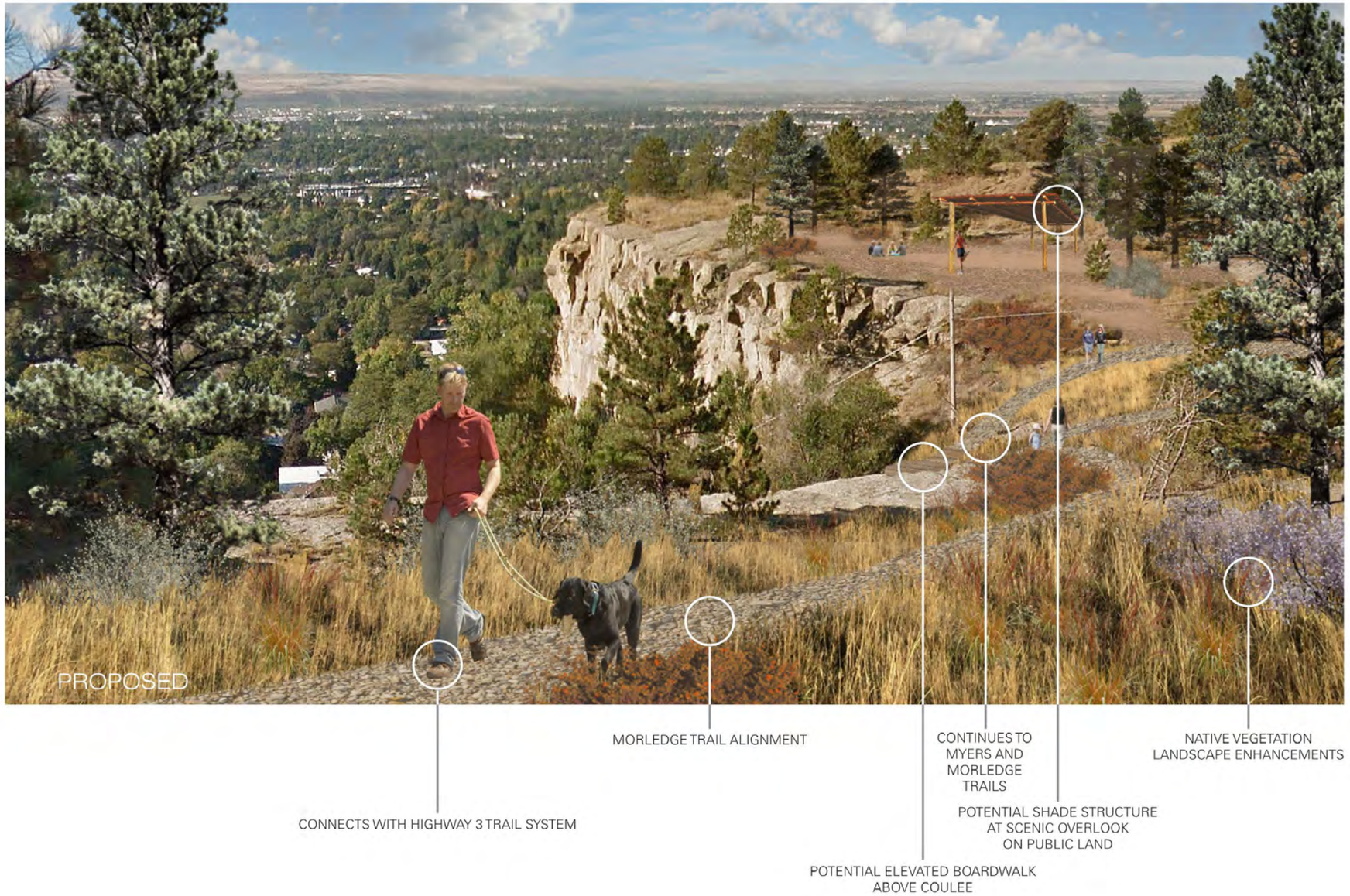


FIGURE 9 - MYERS AND MORLEDGE TRAIL – POTENTIAL POINT OF INTEREST

FIGURE 10 - 27TH STREET TRAIL – POTENTIAL POINT OF INTEREST

Public Input

Public Meeting No. 1 Comments

At the first public meeting, a questionnaire was distributed to attendees and 20 responses were received. It included questions about the potential benefits and anticipated use of these routes, as well as parking, access, safety and maintenance. A brief summary of the responses is provided in Table 1 on the following page and detailed responses are included in Appendix C.

Overall, it was clear that the majority of respondents (95%) recreate within or around the Rims and the majority (95%) are in support of a trail from the top to the bottom of the Rims. Respondents were split on whether the trail should have a paved or natural surface, but there was clear support for parking at trailheads and more clearly defined public access points.

Public Meeting No. 2 Community Polling Results

During the second public meeting, a series of questions were presented regarding the proposed design alternatives and attendees provided their answers on a response sheet. Topics included the trail surface and character for each of the alternatives, prioritization criteria, locations and amenities for trailheads, and improvements for more developed points of interest. A total of 42 people participated in the community polling, including representatives from the City, County and MDT that were in attendance at the public meeting. Table 2 on page 22 provides a summary of the top-rated response(s) for each question presented. A complete compilation of the key pad polling results is provided in Appendix D.

Several key observations were made based on the results of the polling activity. Addressing safety concerns and providing recreational value were the respondents' top two prioritization criteria whereas funding and low cost/maintenance were rated much lower as a determinant for selecting which alignments to proceed with first.

Alignment #1 – Stagecoach Trail, followed closely by Alignment #4 – 27th Street Trail, received the highest rankings for improving connectivity and safety, both in terms of impact and urgency, in traveling from the Rimrocks to the valley floor. A multi-use, dual surface pathway was the preferred trail character for the Stagecoach Trail Alignment, whereas a multi-use paved surface was preferred for the 27th Street Alignment

Generally, there was a preference for natural surface or dual surface trails for the two interior alignments (Myers and Morledge Trails) and paved options for the exterior alternatives (Stagecoach and 27th Street). Natural materials, colors, textures, and self-weathering finishes were preferred overall for the character of built structures on all four alignments. Standard finishes on steel and concrete structures were not rated highly, which speaks to the recognition by the community that the Rimrocks are a special environment and warrant more context-sensitive solutions.

The community's preferences for low, medium, and high intensity trailhead locations were also identified, as well as the most important amenities to include. Signage and wayfinding, trash receptacles and dog waste stations, and restrooms were shown to be the most desired improvements at more developed trailheads.

TABLE 1. PUBLIC MEETING NO. 1 COMMENT SUMMARY

General	
Do you think a trail would be beneficial from the top to the bottom of the Rims?	**Yes - 19 (95%)** **No - 1 (5%)**
If such a trail existed, would you use it?	**Yes - 18 (90%)** **No - 2 (10%)**
Should the trail be paved or a natural surface?	**Paved - 7 (35%)** **Natural - 3 (15%)** **Combo - 10 (50%)**
Parking & Facilities	
Should parking or other facilities be provided at the trailheads?	**Yes - 14 (70%)** **No - 4 (20%)** **Maybe - 2 (10%)**
Access	
Do you support more clearly defined public access points and routes?	**Yes - 17 (85%)** **No - 2 (10%)** **Didn't Answer - 1 (5%)**
Safety	
Would you be interested in participating in a volunteer patrol?	**Yes - 9 (45%)** **No - 6 (30%)** **Maybe - 3 (15%)** **Didn't Answer - 2 (10%)**
Maintenance	
Would you support or be willing to participate in volunteer maintenance & cleanup events?	**Yes - 16 (80%)** **No - 3 (15%)** **Maybe - 1 (5%)**
Are you concerned about proper on-going maintenance being provided on a new trail?	**Yes - 11 (55%)** **No - 6 (30%)** **Didn't Answer - 3 (15%)**
Usage	
Do you live and/or work adjacent to the Rims?	**Yes - 15 (75%)** **No - 4 (20%)** **Didn't Answer - 1 (5%)**
Do you recreate within or around the Rims?	**Yes - 19 (95%)** **No - 0 (0%)** **Didn't Answer - 1 (5%)**

TABLE 2. PUBLIC MEETING NO. 2 COMMUNITY POLLING SUMMARY

Question Summary [1]	Top Rated Response [1]	
	% of Total Votes	Description
Trail Character:		
Preferred trail type/surface for Alignment #1: Stagecoach Trail?	34%	Multi-Use (Dual Surface)
Preferred trail type/surface for Alignment #2: Myers Trail?	24%	Improved (Paved)
Preferred trail type/surface for Alignment #3: Morledge Trail?	24%	Improved (Crushed Rock)
	24%	Multi-Use (Dual Surface)
Preferred trail type/surface for Alignment #4: 27th Street Trail?	34%	Multi-use (Paved)
Character of Built Structures:		
Appropriate character for built structures for the two outer alignments near existing roadways (Stagecoach Trail and 27th Street Trail)?	49%	Any of the choices shown would be fine (Natural materials; Steel/Concrete with natural materials, weathered finish, or color; and/or Steel/concrete with galvanized or standard finish)
	37%	Steel/concrete with natural materials, weathered finish, or color
Appropriate character for built structures for the two alignments that connect through the center of the Rims (Myers Trail and Morledge Trail)?	34%	Any of the choices shown would be fine (Natural materials; Steel/Concrete with natural materials, weathered finish, or color; and/or Steel/concrete with galvanized or standard finish)
	32%	Natural materials only (boulders, wood, etc.)
Impact vs. Urgency Rankings		
Connectivity Ranking - Most Immediate Need and Greatest Impact	#1	Alignment #1 - Stagecoach Trail
	#2	Alignment #4 - 27th Street Trail
Safety Ranking - Most Immediate Need and Greatest Impact	#1	Alignment #1 - Stagecoach Trail
	#2	Alignment #4 - 27th Street Trail
Prioritization Criteria:		
Most important criteria when selecting which trail alignment(s) to implement first are?	61%	Addressing safety concerns
	61%	Providing recreational value
Trailhead Locations:		
Potential trailhead locations appropriate for LOW INTENSITY amenities? (no formal parking, trail signs only, etc.)	54%	Stagecoach Trail at Forsythia Blvd
	56%	Myers Trail at Country Club Circle
Potential trailhead locations appropriate for MEDIUM INTENSITY amenities? (minimal parking (3-5 cars), signage kiosk, trash receptacles, seating, bike rack, etc.)	34%	27th Street Trail at Yucca Street
	29%	Stagecoach Trail near southern end of Zimmerman Park
	29%	Myers/Morledge Trails at Highway 3
Potential trailhead locations appropriate for HIGH INTENSITY amenities? (parking for 5-15 cars, shade structure, picnic tables, restrooms, etc.)	66%	27th Street Trail at Highway 3
	59%	Stagecoach Trail at Highway 3
Trailhead Amenities:		
The trailhead amenities I am most interested in seeing at the moderate and high intensity trailheads include:	71%	Signage and wayfinding
	68%	Trash receptacles / dog waste stations
	41%	Restrooms
Points of Interest:		
Would you like to see points of interest at specific locations along the potential trail alignments?	41%	Yes, specific points of interest are appropriate for LOW intensity amenities.
	37%	Yes, specific points of interest are appropriate for MEDIUM intensity amenities.

[1] Complete question descriptions, lower-rated responses, and additional voting information is shown in Appendix D.

Opinion of Probable Cost

In order to plan for the future implementation of the routes proposed within this feasibility study, it is important to consider the associated construction costs of such projects. An opinion of probable cost for each route has been developed for both the crushed stone and paved surfacing alternatives. The results are summarized in Table 3 below and Appendix Eoh. These cost estimates all include unclassified excavation and imported fill as needed to achieve the design slopes, as well as surfacing materials, geotextile reinforcement, slope stabilization and walls, railing, erosion control fabric, miscellaneous signage, topsoil and seeding. The estimate for the Morledge Trail alternative includes the boardwalk structure recommended at the west end. All of the estimates also include a 20% contingency and 15% for design and construction administration services.

The Stagecoach Trail and the Morledge Trail are the two most expensive options. This is not only because they are longer routes, but also because they require much more earthwork and slope stabilization than the Myers Trail and the 27th Street Trail.

TABLE 3. OPINION OF PROBABLE COSTS

Trail Route Alternative	Opinion of Probable Cost[1]	
	Compacted Crushed Stone 8 ft wide	Paved Surface 8 ft wide
Stagecoach Trail	$912,300	$1,213,400
Myers Trail	$501,600	$632,500
Morledge Trail	$1,005,600	$1,195,300
27th Street Trail	$260,800	$437,700

[1] All cost estimates include 20% contingency and 15% for design and construction administration services.

Next Steps

It is important to note that the intent of this project was never to select one single bike/pedestrian route from the top of the Rims to the bottom. Some alignments will serve more recreational-based needs and others will provide more multi-use transportation connectivity. Overall, all four routes that have been identified are viable alternatives and should be considered with equal priority as opportunities for implementation arise.

For example, there is a possibility that the Stagecoach Trail will be designed and constructed with the City of Billings/MDT road project on Zimmerman Trail. This element of the work will be included as an alternate, so whether it is actually implemented will depend on the cost of the construction bids and if it can be incorporated into the overall project budget. However, this is a great opportunity to establish momentum and build one of these routes within the very near future. Other routes should be considered in coordination with other adjacent projects or when the opportunity arises to secure funding or to acquire right-of-way or easements where needed.

Potential funding sources available for standalone trail projects include the MDT's Transportation Alternatives Program and Montana Fish, Wildlife and Parks Recreational Trails Program. Additional information on these funding programs is available on the following websites:

- Transportation Alternatives – www.mdt.mt.gov/mdt/ta_application.shtml
- Recreational Trails – www.stateparks.mt.gov/recreation/rtpGrants.html

Both of these programs are funded through the Federal Highway Administration and both were included in the recent federal transportation bill reauthorization, so funding should be available through these programs for at least the next four to five years. All four route alternatives may not necessarily be eligible for both programs, depending on their primary use as a transportation or recreational facility, so consideration would need to be given to determine the best funding source for each individual project.

APPENDIX A: PLAN & PROFILE SHEETS

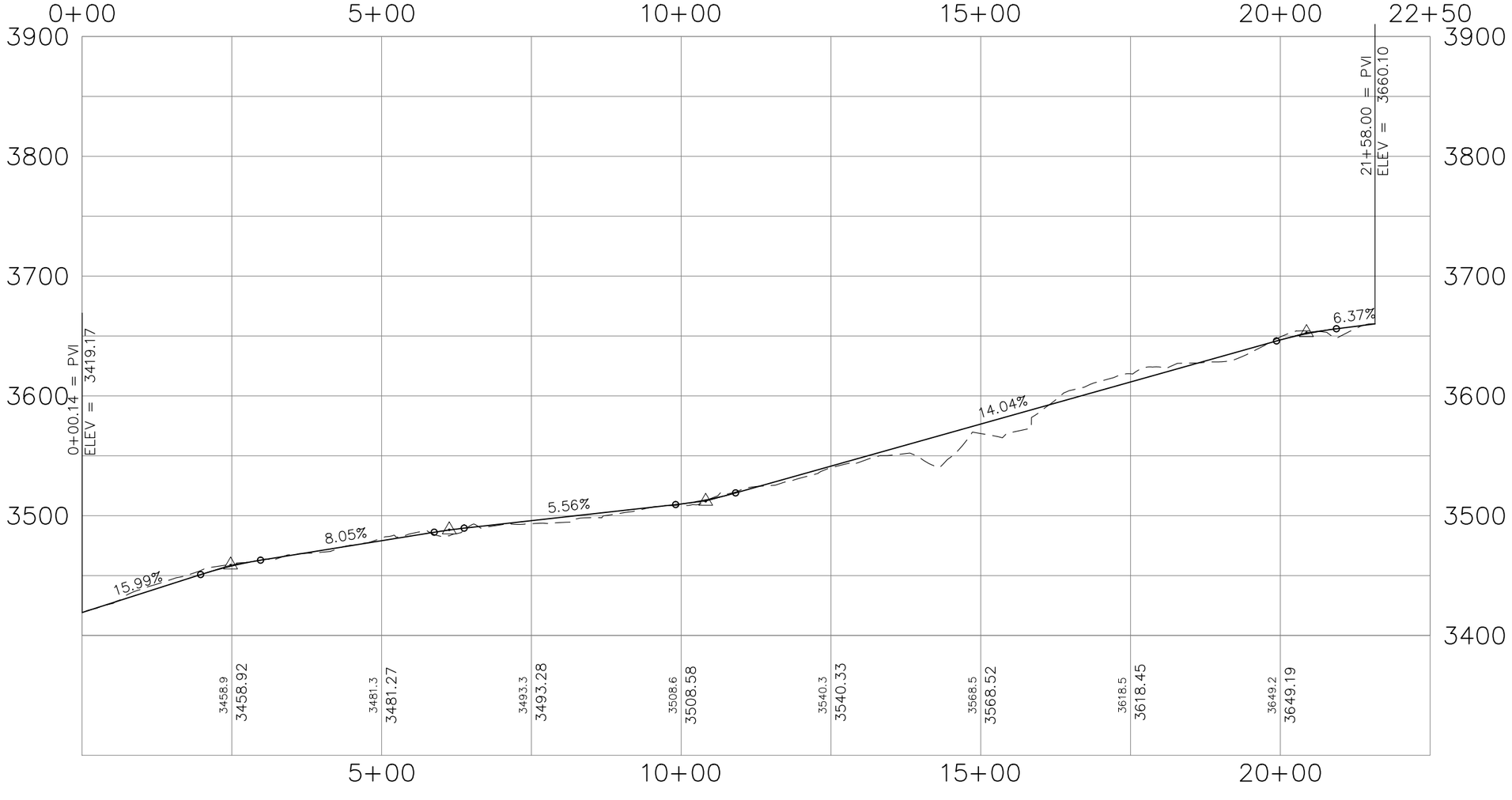
SANDERSON STEWART
WWW.SANDERSONSTEWART.COM

DATE: XX/XX/20XX
FILE: 15055_CONCEPT_BASE.DWG
PROJECT NO: XXXXX.XX
CAD: XXX
QUALITY ASSURANCE:
REVISIONS
DATE DESCRIPTION

RIMROCKS TO VALLEY
RIMROCKS TO VALLEY BIKE AND PEDESTRIAN FEASABILITY STUDY
BILLINGS, MONTANA
PLAN AND PROFILE - ZIMMERMAN TRAIL

C1.0

TO PLAN AND DESIGN ENDURING COMMUNITIES...



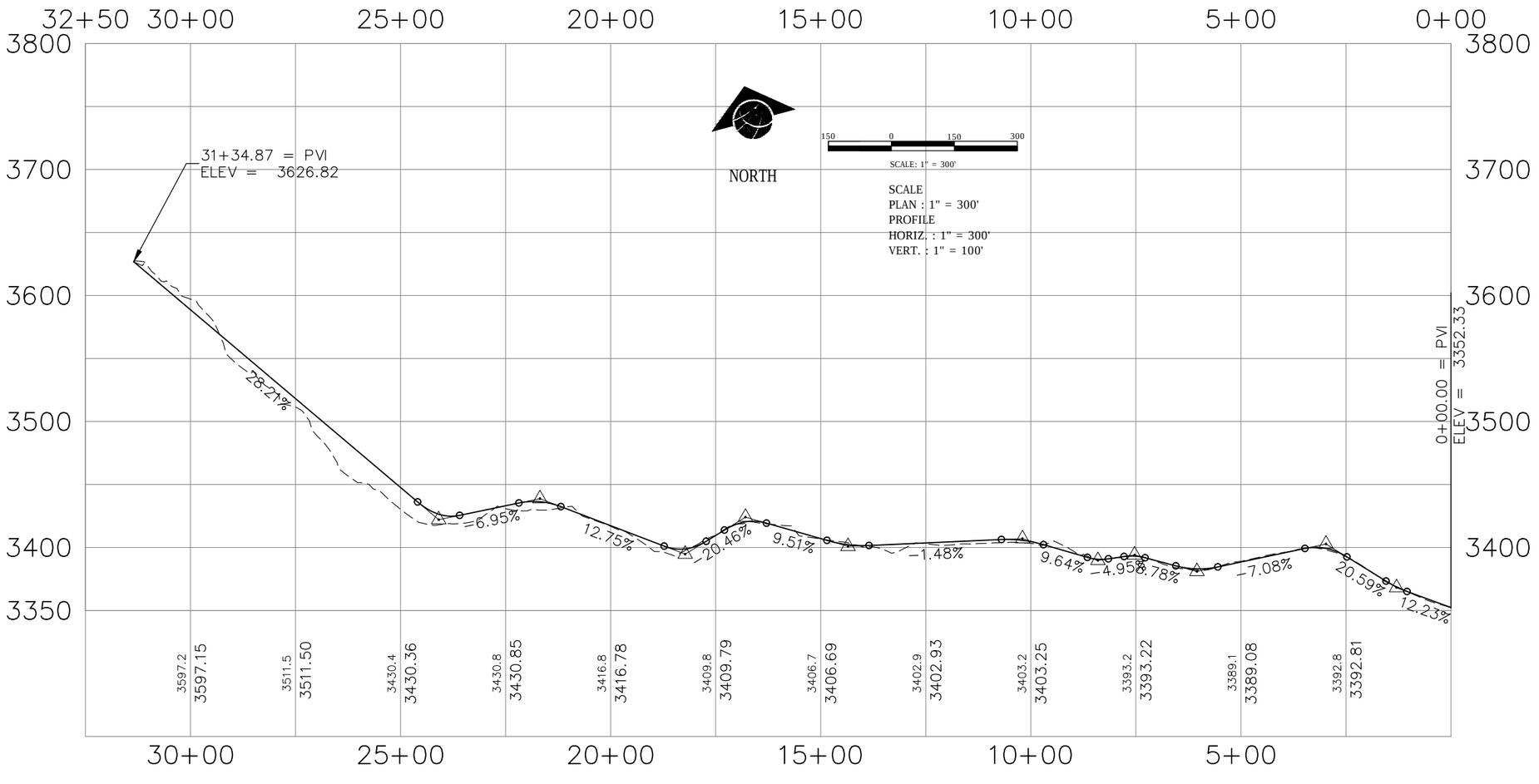
SANDERSON STEWART
www.sandersonstewart.com

DATE: XX/XX/20XX
FILE: 15055_CONCEPT_BASE.DWG
PROJECT NO: XXXXX.XX
CAD: XXX
QUALITY ASSURANCE:
REVISIONS
DATE DESCRIPTION

RIMROCKS TO VALLEY
RIMROCKS TO VALLEY BIKE AND PEDESTRIAN FEASABILITY STUDY
BILLINGS, MONTANA
PLAN AND PROFILE - COUNTRY CLUB CIRCLE

C2.0

TO PLAN AND DESIGN ENDURING COMMUNITIES...



150 0 150 300
SCALE: 1" = 300'

SCALE
PLAN : 1" = 300'
PROFILE
HORIZ. : 1" = 300'
VERT. : 1" = 100'

SANDERSON STEWART
WWW.SANDERSONSTEWART.COM

DATE: XX/XX/20XX
FILE: 15055_CONCEPT_BASE.DWG
PROJECT NO: XXXXX.XX
CAD: XXX
QUALITY ASSURANCE:

REVISIONS

DATE	DESCRIPTION

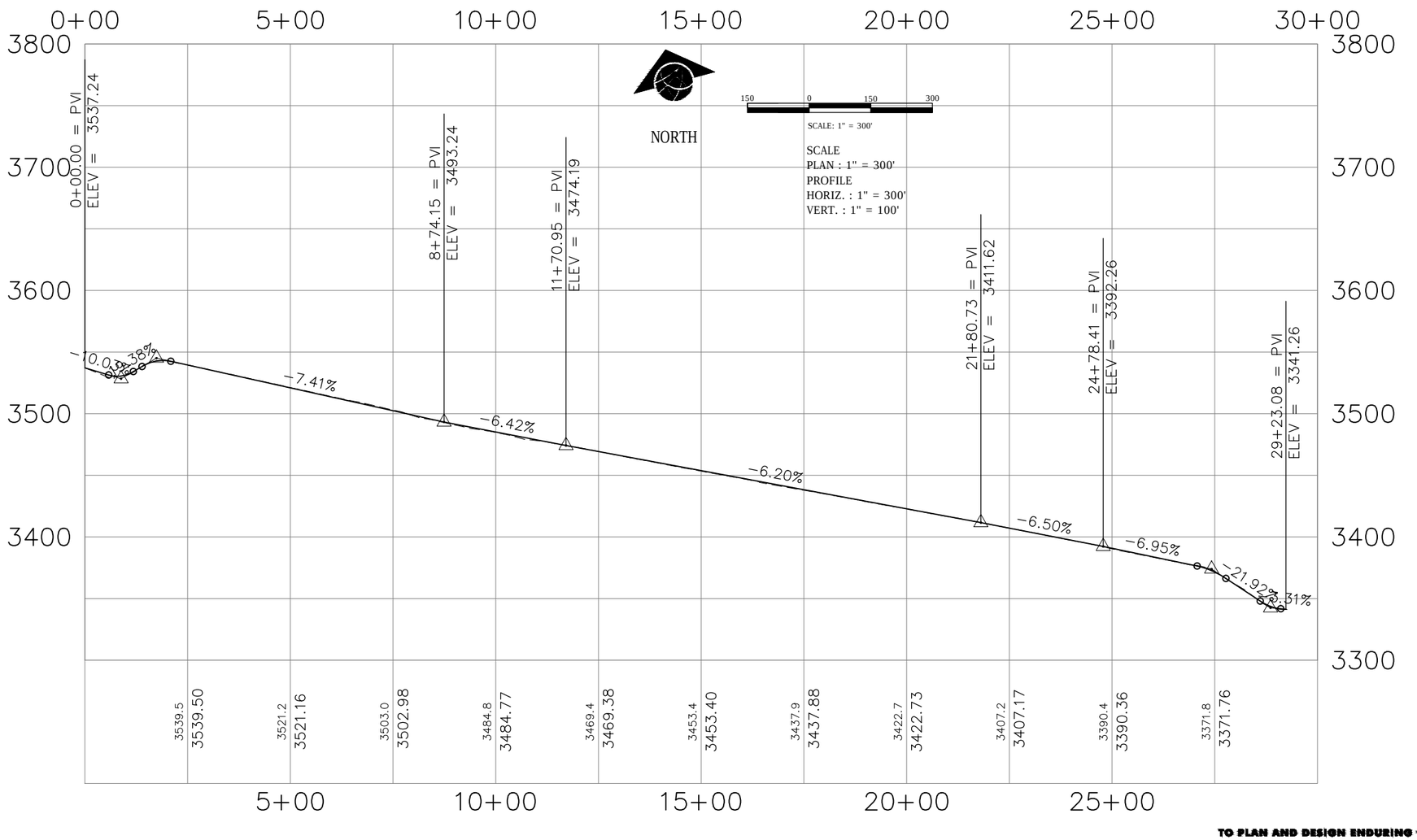
RIMROCKS TO VALLEY
RIMROCKS TO VALLEY BIKE AND PEDESTRIAN FEASABILITY STUDY

BILLINGS, MONTANA

PLAN AND PROFILE - COUNTRY CLUB CIRCLE EAST OPTION

C3.0

TO PLAN AND DESIGN ENDURING COMMUNITIES...



SANDERSON STEWART
www.sandersonstewart.com

DATE: XX/XX/20XX
FILE: 15055_CONCEPT_BASE.DWG
PROJECT NO: XXXXX.XX
CAD: XXX
QUALITY ASSURANCE:

REVISIONS

DATE	DESCRIPTION

RIMROCKS TO VALLEY
RIMROCKS TO VALLEY BIKE AND PEDESTRIAN FEASABILITY STUDY

BILLINGS, MONTANA

PLAN AND PROFILE - NORTH 27TH STREET

C4.0

TO PLAN AND DESIGN ENDURING COMMUNITIES...

APPENDIX B: GEOLOGY & ROCKFALL EVALUATION

ROCKFALL POTENTIAL EVALUATION
RIMROCKS TO VALLEY BIKE AND PEDESTRIAN FEASIBILITY STUDY
Terracon Consultants, Inc.

Terracon Consultants, Inc. (Terracon) has completed a pedestrian survey of potential rockfall that could affect the proposed trail alignments that have been developed for the Rimrocks to Valley Bike and Pedestrian Feasibility Study. A general discussion of the geology of the rims and rockfall mechanics is provided below and is followed by a brief discussion of each trail alternate.

Rims Geology and Rockfall

The rims on the north side of the Yellowstone Valley are cut into sandstone and shale of the Cretaceous Eagle Sandstone and Telegraph Creek formations. Along most of the rims between North 27th and Zimmerman Trail there are two sequences of the Eagle Sandstone which can be seen (Sequence #1 and Sequence #2). The lowest, Sequence #1, is located directly above the Telegraph Creek shale and the transition from shale into the overlaying sandstone is gradual. The change between the sandstones of Sequence #1 and Sequence #2 is more dramatic and can easily be traced. The top of Sequence #1 contains a fine-grained, well-sorted sandstone whereas Sequence #2 is a very fined-grained, siltstone (Hearn and Hansen, Reexamination of the Cretaceous (Campanian) Eagle Sandstone at Billings, Montana, Montana Geological Society: 1989 Field Conference Guidebook: Montana Centennial Edition: Geologic Resources of Montana: Vol. 1, 1989). Sequence #1 tends to break at near vertical fractures spanning the entire height of the member while Sequence #2 tends to break or splay with a more convex or concoidal fractures.

A series of near vertical joints is the main structural feature of the Eagle Sandstone. The primary joint set trends in an east to west orientation, joints are spaced approximately 10 feet apart, and except near the face of the rims, the joints are tight. The face of the rims is formed along this joint set. The joints open up near the face of the rims due to a release of tension on the face side. Freeze/thaw periods, wetting and drying periods, and erosional effects are the main causes of rockfall along the rimrocks with toppling failure mechanisms as the primary way in which the rockfalls occur. A secondary joint set trends north to south on a random spacing. The side drainages that are formed in the face of the rims are formed along the secondary north/south trending joint set.

Lopez (Lopez, D. A., 2003, Areas of Potential Rock-Fall Hazard in the Billings Area, Yellowstone County, Montana, Montana Bureau of Mines and Geology Geologic Map 61-C) reports that as the sandstone cliffs are undermined, progressive opening of the joints occurs primarily due to freeze-thaw cycles and root wedging action that force the blocks outward from the cliff face. Gravity then acts on these separated blocks causing them to fall or topple. Lopez identifies “two mechanisms occurring along the Rimrocks in the Billings area; rockfall and rock topple. A rockfall

is defined as a vertical free fall without any rotation and without any associated sliding of the underlying shale. A rock topple is defined as vertical fall with rotation away from the cliff face, so that the top of the block proceeds down slope first. The block then commonly tumbles end-over-end down the slope."

Geologic Stratigraphy at Zimmerman Trail

Based on observation of recent rockfall events at several locations along the rims, failures do not occur in a uniform manner that can be readily projected by monitoring. In some cases, an obvious gradual widening of joints that eventually leads to failure of a rock block can be observed. And, in these cases a monitoring program is extremely useful in identifying rock blocks that may be in a mode of imminent failure. However, in some cases the widening may reach an equilibrium where there is no observable movement for decades or more until the rock block suddenly fails. In still other cases, there may be no observable indication that a failure is imminent before a rock block suddenly fails. In any case, the presence of rock blocks in various stages of weathering on the slopes below the cliff faces attest to the fact that the rims are in continual state of recession away from the cliff face, much like a deck of cards, and all areas of the rims are eventually subject to rockfall.

Stagecoach Trail (Zimmerman Trail Alignment)

The Stagecoach Trail (Zimmerman Trail) alignment is generally located away from areas of active rockfall except where the alignments traverse directly below the cliff face from about Station. 20+00 to 25+00. In this area, recent rockfall is scattered across the slopes below the cliff face and there remain a number of loose rock blocks that have separated from the cliff face. Additional rockfall that could impact the trail alignments appears imminent in this area.

Rockfall Hazard: Very High

Recommendation: Avoid the area of active rockfall or institute a rockfall mitigation program that includes scaling of loose rock blocks and long-term monitoring. Note however, monitoring cannot distinguish all rock blocks that may fail.

Looking east along cliff face above Sta. 20+00 to 24+00

Looking north along cliff face above Sta. 25+00

Myers Trail Alignment

The Myers Trail alignment mostly follows an existing trail that was constructed in the early 1900's to provide access from the top of the rim's before Zimmerman Trail was developed. The trail has deteriorated considerably, but is still utilized for foot and bike access. The cliff face in this area is relatively solid with only scattered small blocks at the top of the cliff face that are slowly dislodging over time. The east facing cliff face where the trail alignment ascends to the top of the rims exhibits a lack of large loose rock blocks that span the cliff face, with a layer of smaller cubical rock blocks at the top of the cliff that are actively failing.

Sloughing of the soil slope below the cliff face would seem to be a greater concern than rockfall along this alignment.

Rockfall Hazard: Low to Moderate

Recommendation: Institute a long-term monitoring program that includes annual observation of the rock faces above the trail alignments. Note however, monitoring cannot distinguish all rock blocks that may fail.

Cliff face above Country Club Circle. Note the relatively solid nature of the cliff face.

Upper portion of the Myers Trail alignment. Note the lack of large loose rock blocks that span the cliff face and the smaller cubical rock blocks at the top of the cliff that are actively failing.

Morledge Trail Alignment

The Morledge Trail alignment will traverse along the base of the slope below the rims between 17th Street and the side drainage where both Myers Trail and Morledge Trail alignments ascend to the top of the rims. In this area, the sequence #2 cliff face above the unconformity separating sequences #1 and #2 has mostly failed, leaving a distinct ledge that serves as a catchment for rock block failures above the unconformity. Also, until the trail alignment begins to approach and climb up the side drainage, the alignment is mostly at the lower end of the boulder field and appears to be outside the run-out zone of most any modern rockfall.

As the trail alignment progresses to the west and begins to climb into the side drainage, there are several larger hanging rock blocks that appear to stable at this time, but at some time in the future will fail and may roll onto the alignment. In the side drainage, the west facing cliff face is rounded and weathered, and appears relatively stable.

Rockfall Hazard: Low to Moderate

Recommendation: Institute a long-term monitoring program that includes annual observation of the rock faces above the trail alignments. Note however, monitoring cannot distinguish all rock blocks that may fail.

Looking east toward 17th Street. Note the east half of the alignment follows along a landslide bench that appears outside of the modern run-out zone. The west half of the alignment appears at the bottom of the modern run-out zone.

Upper portion of the Morledge Trail alignment. Note the weathered and rounded nature of the west facing cliff face.

North 27th Street Alignment

The North 27th Street Trail alignment will be located on the downslope side of 27th street, opposite the cliff face. During the construction of North 27th Street, the rock face was reduced and scaled and now is very stable with only occasional small rocks separating from the rock face and rolling onto road. There is no indication that there is the potential for a large rockfall event to impact the trail alignment.

Rockfall Hazard: Very Low to Non-existent

Recommendation: Monitoring does not appear warranted.

Looking west up North 27th Street. Note, the stable nature of the rock slope. The trail alignment would be on the outside of the guard rail on the south side of the roadway.

Sincerely,

Dan C. Nebel, P.G., L.E.G.
Terracon Consultants, Inc.

APPENDIX C: PUBLIC MEETING NO.1 COMMENT SUMMARY

Rims to Valley Bike/Ped Feasibility Study
Public Meeting No. 1 Comment Summary
12/2/2015

	Response 1	Response 2	Response 3	Response 4	Response 5	Response 6	Response 7	Response 8	Response 9	Response 10	Response 11	Response 12	Response 13	Response 14	Response 15	Response 16	Response 17	Response 18	Response 19	Response 20	**Totals**
General																					
Do you think a trail would be beneficial from the top to the bottom of the Rims?	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes - 19 (95%) No - 1 (5%)**
If such a trail existed, would you use it?	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes (everyday)	Yes	Yes	Yes	Yes	No	Yes	**Yes - 18 (90%) No - 2 (10%)**
Should the trail be paved or a natural surface?	Combo	Paved	Combo	Paved	Natural	Paved	Paved	Combo	Combo	Paved	Combo	Paved	Combo	Combo	Combo	Natural	Combo	Paved	Natural	Combo	**Paved - 7 (35%) Natural - 3 (15%) Combo - 10 (50%)**
Parking & Facilities																					
Should parking or other facilities be provided at the trailheads?	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Maybe	Yes	Maybe	Yes	Yes	Yes	Yes	Yes	No	No	**Yes - 14 (70%) No - 4 (20%) Maybe - 2 (10%)**
If so, what type of facilities?	I don't think each "trailhead" needs parking. Depends on the area & availability of land. Parking along Hwy 3 is more critical.		Swords Park and Black Otter Trail parking lots are well used. Seems like a similar approach should occur all along the Marathon Loop. I would not support parking facilities in developed neighborhoods.	At least at one end.		Parking would be helpful for Alternates 1-3. Existing Rims parking may be close enough and sufficient for Alternate 4.		Parking can be provided, but it would not a priority for me. The Rims-Valley connection eliminates the need to drive up the Rims for trail along the Rims in my mind. So a low priority.			A few: after all we're talking about riding bikes - I don't see why people would drive to the trails.	Parking, bike racks.	Maybe/Maybe not depending on availability - access is most important/connecting travelers on foot/bike. Look for shared use - example - parking at MSUB to access 27th St.		Restrooms, dog pick-up bags, trash cans.		It is always nice to have parking and in some cases a toilet.		Do not add parking in residential areas.	Not at each trailhead, but spread out to allow for less project expense & quicker completion.	
Access																					
Do you support more clearly defined public access points and routes?	Yes	No	Yes	Yes	Yes	Yes		Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes - 17 (85%) No - 2 (10%) Didn't Answer - 1 (5%)**
If not, what are your concerns?							Routes need to be any place except next to current major streets like Hwy 3 & 27th & Zimmerman Trail														
Safety																					
Would you be interested in participating in a volunteer patrol?	No	No	Maybe		Yes	No	No	Maybe	Yes	Maybe	No	Yes	Yes	Yes	Yes		Yes	Yes	No	Yes	**Yes - 9 (45%) No - 6 (30%) Maybe - 3 (15%) Didn't Answer - 2 (10%)**
What safety issues do you fell will need to be considered?			Patrol person training to deal with unruly or uncooperative people on the trail.		Underpass highway and Zimmerman Trail. Stability of ground under trail.	Trash and other debris though most paths I've ridden have been well maintained and clean. Falling rock and steep edges may also be a concern but these will likely be addressed.	A presence of police - community or otherwise, lighting, means to summon help - call box?	I'm mostly interested in using my volunteer time planning for making Billings a highly desirable place to live w/ bike trails that allow access throughout town and to the Rims & river. But occaisonally being on patrol could be a good excuse to actually get out and enjoy what's been put into place.					Access to rims on 27th via roadway feels very dangerous currently (when on road).	Yes, I am a member of BP Bike Patrol			Not sure, but would support it if it means more public access.	Street traffic, maintenance (repair and cleaning), unwanted dangerous people.			
Maintenance																					
Would you support or be willing to participate in volunteer maintenance & cleanup events?	Yes	No	Maybe	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes (possibly)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	**Yes - 16 (80%) No - 3 (15%) Maybe - 1 (5%)**
Are you concerned about proper on-going maintenance being provided on a new trail?	Yes	No	Yes	Yes	Yes	No		Yes	Yes	Yes	Yes	No			No	Yes	No	Yes	No	Yes	**Yes - 11 (55%) No - 6 (30%) Didn't Answer - 3 (15%)**
If so, what are your concerns?	Cleaning off debris/rocks/dirt and long-term viability		Having perpetual funding to maintain & repair improvements & facilities. It would be unfortunate to build a trail & then fall into disrepair.		Does the City have funds to maintain the trail?		Trash that will blow onto adjacent properties, dog poop.	Broken glass, loose gravel.	It is a long segment vulnerable to weather effects and will be labor intensive.	They need to be kept clean but hopefully users would not litter.	I'm not seeing good maintenance on existing trails, weeds encroaching on trail, goat heads, trash and broken glass in places.		Needs to include maintenance. All part of planning - new roads are more costly - development inside city with existing infrastructure makes sense.				If there is a concern, I support volunteer clean up efforts.	Wear & tear due to aging and weather damage, striping of centerlines and signage.		Graffiti	
Additional Comments																					
Please use the space to provide additional comments or concerns.	I currently run up N 27th St and the current dirt trail works. It needs help in a few spots. On 27th, I'd prefer to see bike lanes on-street & separate bikes & peds there - especially going downhill. I also ride to work up 27th & there is almost enough room for a bike lane now, it just needs to be restriped & maybe reduce lane widths.	Need to connect to some part of trail currently in existence - ie - 27th St underpass. Picnic tables, etc. could be on existing city property at bottom of trail.	I am drawn to the idea of bike ped path along Hwy 3 as an extension of the Swords Park Path. The Zimmerman Trail path seems like a natural connection. The N 27th St path already exists to a degree, whereas the Zimmerman Path does not. Developing Zimmerman creates more options vs. N 27th which just improves the existing system. I believe an off-street connection at the west end of the Hwy 3 corridor is a great asset for the community & would be highly used.	We really need to get the underpass into the Zimmerman/Hwy 3 roundabout.	What is the cost of each route? Timeline?		Who is paying & why are we putting this right next to 27th St and Hwy 3 - but who pays & how much? Connecting use of Aronson is valid and should be considered.	As a new business owner, one of the most challenging tasks I face is attracting and retaining top-notch talent in Billings. If we're going to attract the best brightest, we need a bikable, walkable community for both everyday transit and for recreation. A large body of research supports this conclusion. The Rims-to-Valley connection is one of the most critical missing pieces in creating a comprehensive multi-use trail network in Billings. Along with one of the most challenging. But if we can pull this off, we will be on our way to having a world-class recreational asset.	This is an important project that, when completed, can greatly enhance the quality of life in Billings going forward, and serve as a stimulus to recruit businesses.	The Morledge trail would be above our back yard. I am in favor of improving trails.		Let's do this thing! Keep moving our city forward. Thanks	Shouldn't the 27th St Trail have been improved already when 27th St was resurfaced? The on-street bike lane and trail off street on 27th makes great sense (should be both) - airport to downtown, next to MSUB, etc. Need a bike friendly storm drain on descent side of 27th St.	What is the plan for vehicular Zimmerman when loop connects?				Some trail plans might not include paved surfaces? How will trails incorporate the Highway 3 enhancement design? How would these designs incorporate the inner belt design? What is the timeline?			
Usage																					
Do you live and/or work adjacent to the Rims?	Yes	Yes	Yes	Yes	Yes		Yes	Sort of (S of MSUB)	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	No	Yes	Yes	**Yes - 15 (75%) No - 4 (20%) Didn't Answer - 1 (5%)**
Do you recreate within or around the Rims?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes - 19 (95%) No - 0 (0%) Didn't Answer - 1 (5%)**
If not, would you use a trail if a more established access point/alignment existed?	N/A	N/A	N/A	N/A	N/A		No	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

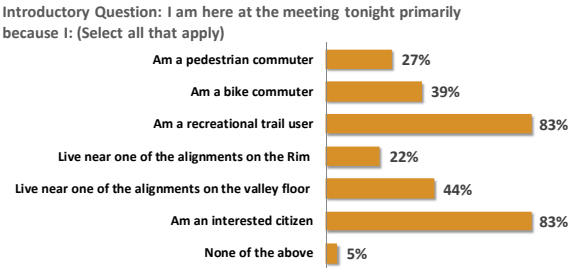
APPENDIX D: PUBLIC MEETING NO. 2 COMMUNITY POLLING RESULTS

RIMROCKS TO VALLEY
BIKE|PED FEASIBILITY STUDY

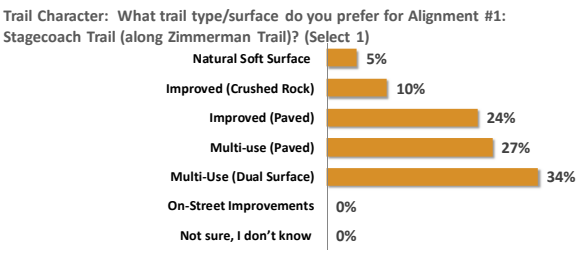
KEYPAD POLLING RESPONSES

February 3, 2015
Total Participants: 42

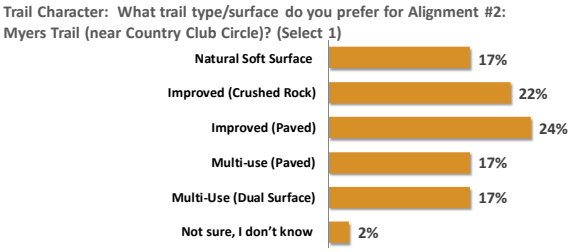
Introductory Question: I am here at the meeting tonight primarily because I: (Select all that apply)	Total Reponses	Percentage of Participants
Am a pedestrian commuter	11	27%
Am a bike commuter	16	39%
Am a recreational trail user	34	83%
Live near one of the alignments on the Rim	9	22%
Live near one of the alignments on the valley floor	18	44%
Am an interested citizen	34	83%
None of the above	2	5%



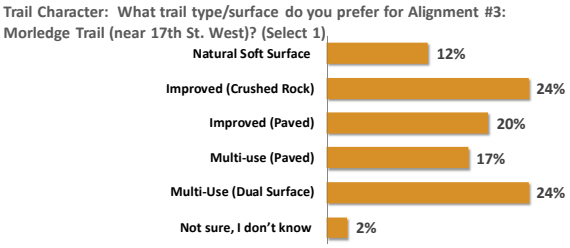
Trail Character: What trail type/surface do you prefer for Alignment #1: Stagecoach Trail (along Zimmerman Trail)? (Select 1)	Total Reponses	Percentage of Participants
Natural Soft Surface	2	5%
Improved (Crushed Rock)	4	10%
Improved (Paved)	10	24%
Multi-use (Paved)	11	27%
Multi-Use (Dual Surface)	14	34%
On-Street Improvements	0	0%
Not sure, I don't know	0	0%



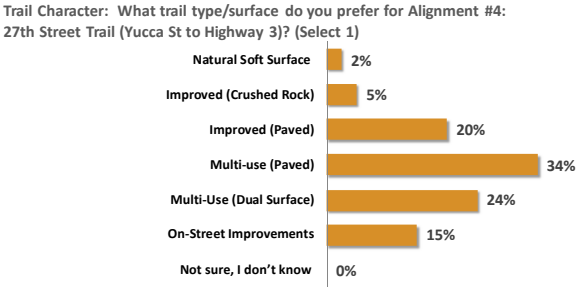
Trail Character: What trail type/surface do you prefer for Alignment #2: Myers Trail (near Country Club Circle)? (Select 1)	Total Reponses	Percentage of Participants
Natural Soft Surface	7	17%
Improved (Crushed Rock)	9	22%
Improved (Paved)	10	24%
Multi-use (Paved)	7	17%
Multi-Use (Dual Surface)	7	17%
Not sure, I don't know	1	2%



Trail Character: What trail type/surface do you prefer for Alignment #3: Morledge Trail (near 17th St. West)? (Select 1)	Total Reponses	Percentage of Participants
Natural Soft Surface	5	12%
Improved (Crushed Rock)	10	24%
Improved (Paved)	8	20%
Multi-use (Paved)	7	17%
Multi-Use (Dual Surface)	10	24%
Not sure, I don't know	1	2%

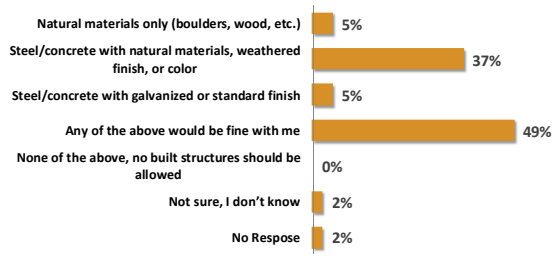


Trail Character: What trail type/surface do you prefer for Alignment #4: 27th Street Trail (Yucca St to Highway 3)? (Select 1)	Total Reponses	Percentage of Participants
Natural Soft Surface	1	2%
Improved (Crushed Rock)	2	5%
Improved (Paved)	8	20%
Multi-use (Paved)	14	34%
Multi-Use (Dual Surface)	10	24%
On-Street Improvements	6	15%
Not sure, I don't know	0	0%



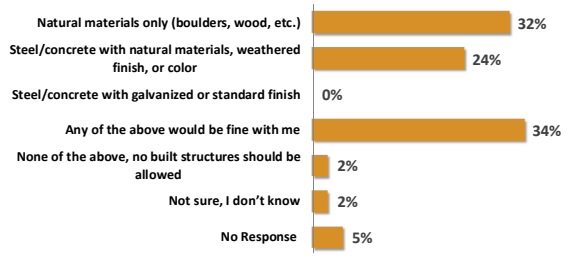
Character of Built Structures: What do you feel is the appropriate character for built structures if needed for the two outer alignments near existing roadways (Stagecoach Trail and 27th Street Trail)? (Select 1)	Total Reponses	Percentage of Participants
Natural materials only (boulders, wood, etc.)	2	5%
Steel/concrete with natural materials, weathered finish, or color	15	37%
Steel/concrete with galvanized or standard finish	2	5%
Any of the above would be fine with me	20	49%
None of the above, no built structures should be allowed	0	0%
Not sure, I don't know	1	2%
No Respose	1	2%

Character of Built Structures: What do you feel is the appropriate character for built structures if needed for the two outer alignments near existing roadways (Stagecoach Trail and 27th Street Trail)? (Select 1)

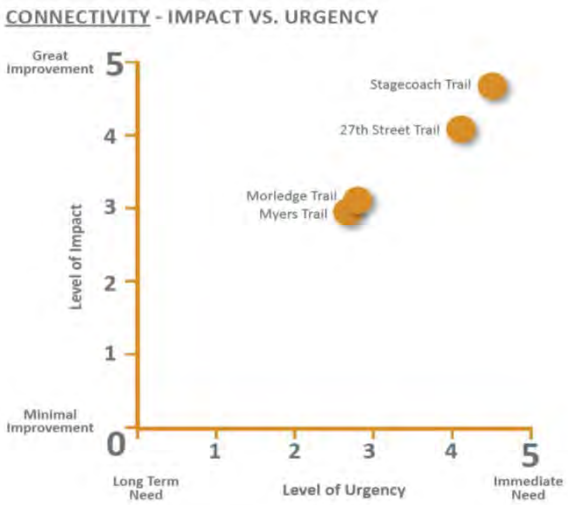


Character of Built Structures: What do you feel is the appropriate character for built structures if needed for the two alignments that connect through the center of the Rims (Myers Trail and Morledge Trail)? (Select 1)	Total Reponses	Percentage of Participants
Natural materials only (boulders, wood, etc.)	13	32%
Steel/concrete with natural materials, weathered finish, or color	10	24%
Steel/concrete with galvanized or standard finish	0	0%
Any of the above would be fine with me	14	34%
None of the above, no built structures should be allowed	1	2%
Not sure, I don't know	1	2%
No Response	2	5%

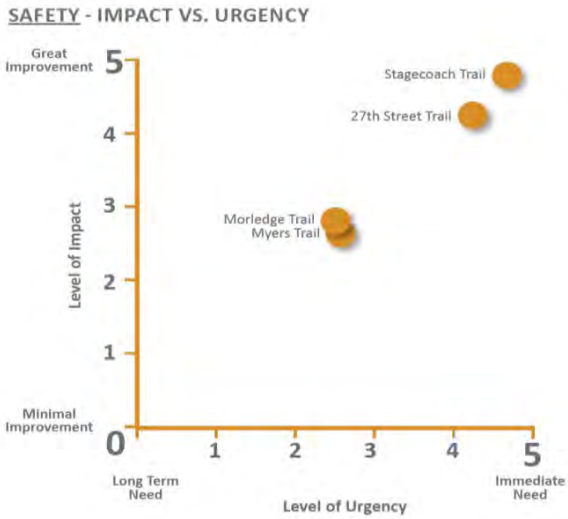
Character of Built Structures: What do you feel is the appropriate character for built structures if needed for the two alignments that connect through the center of the Rims (Myers Trail and Morledge Trail)? (Select 1)



URGENCY vs IMPACT - CONNECTIVITY	
LEVEL OF URGENCY (CONNECTIVITY)	
Stagecoach Trail (along Zimmerman Trail) - Alignment 1 Level of Urgency (CONNECTIVITY)	4.5
Myers Trail (near Country Club Circle) - Alignment 2 Level of Urgency (CONNECTIVITY)	2.7
Morledge Trail (near 17th St. West) - Alignment 3 Level of Urgency (CONNECTIVITY)	2.8
27th Street Trail (Yucca St to Highway 3) - Alignment 4 Level of Urgency (CONNECTIVITY)	4.1
LEVEL OF IMPACT (CONNECTIVITY)	
Stagecoach Trail (along Zimmerman Trail) -Alignment 1 Level of Impact (CONNECTIVITY)	4.6
Myers Trail (near Country Club Circle) - Alignment 2 Level of Impact (CONNECTIVITY)	3.0
Morledge Trail (near 17th St. West) - Alignment 3 Level of Impact (CONNECTIVITY)	3.1
27th Street Trail (Yucca St to Highway 3) - Alignment 4 Level of Impact (CONNECTIVITY)	4.1

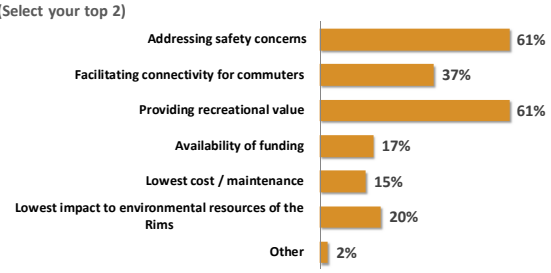


URGENCY vs IMPACT - CONNECTIVITY	
LEVEL OF URGENCY (SAFETY)	
Stagecoach Trail (along Zimmerman Trail) - Alignment 1 Level of Urgency (SAFETY)	4.60
Myers Trail (near Country Club Circle) - Alignment 2 Level of Urgency (SAFETY)	2.48
Morledge Trail (near 17th St. West) - Alignment 3 Level of Urgency (SAFETY)	2.55
27th Street Trail (Yucca St to Highway 3) - Alignment 4 Level of Urgency (SAFETY)	4.28
LEVEL OF IMPACT (SAFETY)	
Stagecoach Trail (along Zimmerman Trail) -Alignment 1 Level of Impact (SAFETY)	4.70
Myers Trail (near Country Club Circle) - Alignment 2 Level of Impact (SAFETY)	2.68
Morledge Trail (near 17th St. West) - Alignment 3 Level of Impact (SAFETY)	2.73
27th Street Trail (Yucca St to Highway 3) - Alignment 4 Level of Impact (SAFETY)	4.33



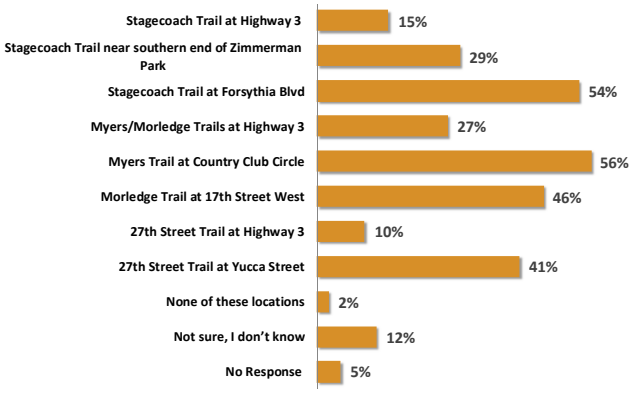
Prioritization Criteria: The criteria I feel are most important when selecting which trail alignment(s) to implement first are? (Select your top 2)	Total Reponses	Percentage of Participants
Addressing safety concerns	25	61%
Facilitating connectivity for commuters	15	37%
Providing recreational value	25	61%
Availability of funding	7	17%
Lowest cost / maintenance	6	15%
Lowest impact to environmental resources of the Rims	8	20%
Other	1	2%

Prioritization Criteria: The criteria I feel are most important when selecting which trail alignment(s) to implement first are? (Select your top 2)



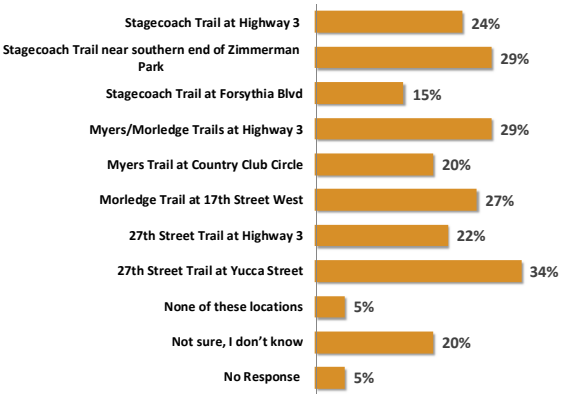
Trailhead Locations: Which of the following potential trailhead locations are appropriate for LOW INTENSITY amenities (no formal parking, trail signs only, etc.)? (Select all that apply)	Total Reponses	Percentage of Participants
Stagecoach Trail at Highway 3	6	15%
Stagecoach Trail near southern end of Zimmerman Park	12	29%
Stagecoach Trail at Forsythia Blvd	22	54%
Myers/Morledge Trails at Highway 3	11	27%
Myers Trail at Country Club Circle	23	56%
Morledge Trail at 17th Street West	19	46%
27th Street Trail at Highway 3	4	10%
27th Street Trail at Yucca Street	17	41%
None of these locations	1	2%
Not sure, I don't know	5	12%
No Response	2	5%

Trailhead Locations: Which of the following potential trailhead locations are appropriate for LOW INTENSITY amenities (no formal parking, trail signs only, etc.)? (Select all that apply)



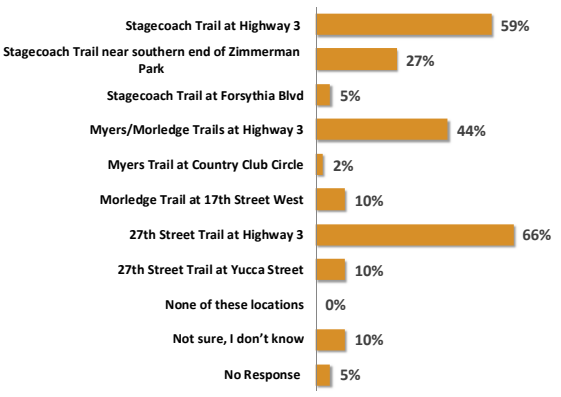
Trailhead Locations: Which of the following potential trailhead locations are appropriate for MEDIUM INTENSITY amenities (minimal parking (3-5 cars), signage kiosk, trash receptacles, seating, bike rack, etc.)? (Select all that apply)	Total Reponses	Percentage of Participants
Stagecoach Trail at Highway 3	10	24%
Stagecoach Trail near southern end of Zimmerman Park	12	29%
Stagecoach Trail at Forsythia Blvd	6	15%
Myers/Morledge Trails at Highway 3	12	29%
Myers Trail at Country Club Circle	8	20%
Morledge Trail at 17th Street West	11	27%
27th Street Trail at Highway 3	9	22%
27th Street Trail at Yucca Street	14	34%
None of these locations	2	5%
Not sure, I don't know	8	20%
No Response	2	5%

Trailhead Locations: Which of the following potential trailhead locations are appropriate for MEDIUM INTENSITY amenities (minimal parking (3-5 cars), signage kiosk, trash receptacles, seating, bike rack, etc.)? (Select all that apply)



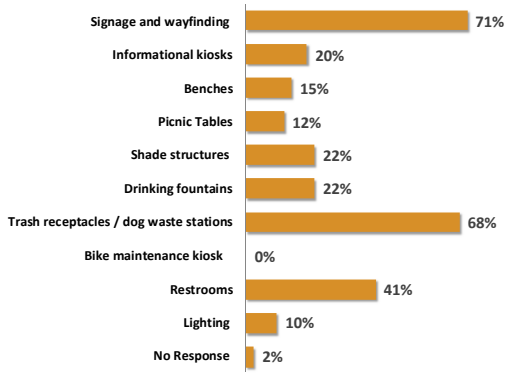
Trailhead Locations: Which of the following potential trailhead locations are appropriate for HIGH INTENSITY amenities (parking for 5-15 cars, shade structure, picnic tables, restrooms, etc.)? (Select all that apply)	Total Reponses	Percentage of Participants
Stagecoach Trail at Highway 3	24	59%
Stagecoach Trail near southern end of Zimmerman Park	11	27%
Stagecoach Trail at Forsythia Blvd	2	5%
Myers/Morledge Trails at Highway 3	18	44%
Myers Trail at Country Club Circle	1	2%
Morledge Trail at 17th Street West	4	10%
27th Street Trail at Highway 3	27	66%
27th Street Trail at Yucca Street	4	10%
None of these locations	0	0%
Not sure, I don't know	4	10%
No Response	2	5%

Trailhead Locations: Which of the following potential trailhead locations are appropriate for HIGH INTENSITY amenities (parking for 5-15 cars, shade structure, picnic tables, restrooms, etc.)? (Select all that apply)



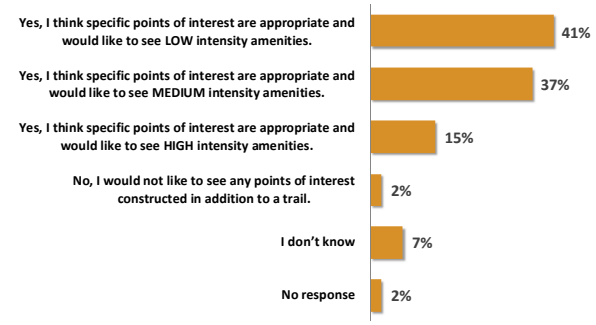
Trailhead Amenities: **The trailhead amenities I am most interested in seeing at the moderate and high intensity trailheads include: (Select your top 3)**	**Total Reponses**	**Percentage of Participants**
Signage and wayfinding	29	71%
Informational kiosks	8	20%
Benches	6	15%
Picnic Tables	5	12%
Shade structures	9	22%
Drinking fountains	9	22%
Trash receptacles / dog waste stations	28	68%
Bike maintenance kiosk	0	0%
Restrooms	17	41%
Lighting	4	10%
No Response	1	2%

Trailhead Amenities: The trailhead amenities I am most interested in seeing at the moderate and high intensity trailheads include: (Select your top 3)



Points of Interest: **Would you like to see points of interest at specific locations along the potential trail alignments? (Select 1)**	**Total Reponses**	**Percentage of Participants**
Yes, I think specific points of interest are appropriate and would like to see **LOW** intensity amenities.	17	41%
Yes, I think specific points of interest are appropriate and would like to see **MEDIUM** intensity amenities.	15	37%
Yes, I think specific points of interest are appropriate and would like to see **HIGH** intensity amenities.	6	15%
No, I would not like to see any points of interest constructed in addition to a trail.	1	2%
I don't know	3	7%
No response	1	2%

Points of Interest: Would you like to see points of interest at specific locations along the potential trail alignments? (Select 1)



APPENDIX E: OPINION OF PROBABLE COSTS

ENGINEER'S OPINION OF PROBABLE COST BASED ON CONCEPT DESIGN PLANS

RIMROCKS TO VALLEY BIKE AND PEDESTRIAN FEASIBILITY STUDY
Stagecoach Trail

ITEM NO.	EST. QTY		DESCRIPTION	UNIT PRICE		TOTAL PRICE
				$		$
100	1	LS	Mobilization/Demobilization (5%)	31,285.00 /	LS =	31,285.00
101	1	LS	Taxes, Bonds, Insurance (3%)	18,771.00 /	LS =	18,771.00
102	1	LS	Stormwater Management and Erosion Control	12,000.00 /	LS =	12,000.00
103	1	LS	Traffic Control During Construction	1,000.00 /	LS =	1,000.00
104	4	AC	Clearing and Grubbing	6,200.00 /	AC =	24,800.00
105	5,400	CY	Unclassified Excavation	20.00 /	CY =	108,000.00
106	600	CY	Imported Fill	20.00 /	CY =	12,000.00
107	1,855	CY	12-inch Thick Gravel Surface (8-foot Wide)	40.00	CY =	74,200.00
108	1	LS	Miscellaneous Signage	5,000.00 /	LS =	5,000.00
109	15,000	SY	Erosion Control Blanket	3.50 /	SY =	52,500.00
110	4	AC	Apply Topsoil and Seed Disturbed Areas	6,000.00 /	AC =	24,000.00
111	500	LF	Railing	40.00 /	LF =	20,000.00
112	1	LS	Slope Stabilization and Walls	270,000.00 /	LS =	270,000.00
113	4,440	SY	Geogrid Reinforcement	5.00 /	SY =	22,200.00

TOTAL PRICE FOR BASE BID	$ 675,756.00
TOTAL WITH 20% CONTINGENCY & 15% DESIGN/CA	$ **912,270.60**

Asphalt Surfacing Alternate

ALT1-1	4,440	SY	2 1/2-inch Thick Asphalt Surface (8-foot Wide) with 10-inch Thick Base Coarse (Includes Deduct of 2-inches of Gravel)	50.00 /	SY =	222,000.00
ALT1-2	1	LS	Miscellaneous Striping	1,000.00 /	LS =	1,000.00

TOTAL PRICE FOR ALTERNATE 1	$ 223,000.00
TOTAL PRICE WITH ALTERNATE 1	$ 898,756.00
TOTAL WITH 20% CONTINGENCY & 15% DESIGN/CA	$ **1,213,320.60**

ENGINEER'S OPINION OF PROBABLE COST BASED ON CONCEPT DESIGN PLANS

RIMROCKS TO VALLEY BIKE AND PEDESTRIAN FEASIBILITY STUDY

Myers Trail

ITEM NO.	EST. QTY		DESCRIPTION	UNIT PRICE		TOTAL PRICE
				$		$
100	1	LS	Mobilization/Demobilization (5%)	17,200.00 /	LS =	17,200.00
101	1	LS	Taxes, Bonds, Insurance (3%)	10,320.00 /	LS =	10,320.00
102	1	LS	Stormwater Management and Erosion Control	10,000.00 /	LS =	10,000.00
103	1	LS	Traffic Control During Construction	1,000.00 /	LS =	1,000.00
104	2	AC	Clearing and Grubbing	6,200.00 /	AC =	12,400.00
105	1,890	CY	Unclassified Excavation	20.00 /	CY =	37,800.00
106	2,200	CY	Imported Fill	20.00 /	CY =	44,000.00
107	800	CY	12-inch Thick Gravel Surface (8-foot Wide)	40.00	CY =	32,000.00
108	1	LS	Miscellaneous Signage	5,000.00 /	LS =	5,000.00
109	8,000	SY	Erosion Control Blanket	3.50 /	SY =	28,000.00
110	2	AC	Apply Topsoil and Seed Disturbed Areas	6,000.00 /	AC =	12,000.00
111	880	LF	Railing	40.00 /	LF =	35,200.00
112	1	LS	Slope Stabilization and Walls	117,000.00 /	LS =	117,000.00
113	1,920	SY	Geogrid Reinforcement	5.00 /	SY =	9,600.00
			TOTAL PRICE FOR BASE BID			$ 371,520.00
			TOTAL WITH 20% CONTINGENCY & 15% DESIGN/CA			$ **501,552.00**

Asphalt Surfacing Alternate

ALT1-1	1,920	SY	2 1/2-inch Thick Asphalt Surface (8-foot Wide) with 10-inch Thick Base Coarse (Includes Deduct of 2-inches of Gravel)	50.00 /	SY =	96,000.00
ALT1-2	1	LS	Miscellaneous Striping	1,000.00 /	LS =	1,000.00
			TOTAL PRICE FOR ALTERNATE 1			$ 97,000.00
			TOTAL PRICE WITH ALTERNATE 1			$ 468,520.00
			TOTAL WITH 20% CONTINGENCY & 15% DESIGN/CA			$ **632,502.00**

SANDERSON STEWART

ENGINEER'S OPINION OF PROBABLE COST BASED ON CONCEPT DESIGN PLANS

RIMROCKS TO VALLEY BIKE AND PEDESTRIAN FEASIBILITY STUDY

Morledge Trail

ITEM NO.	EST. QTY		DESCRIPTION	UNIT PRICE			TOTAL PRICE
				$			$
100	1	LS	Mobilization/Demobilization (5%)	27,540.00	/ LS	=	27,540.00
101	1	LS	Taxes, Bonds, Insurance (3%)	16,524.00	/ LS	=	16,524.00
102	1	LS	Stormwater Management and Erosion Control	11,000.00	/ LS	=	11,000.00
103	1	LS	Traffic Control During Construction	1,000.00	/ LS	=	1,000.00
104	3	AC	Clearing and Grubbing	6,200.00	/ AC	=	18,600.00
105	800	CY	Unclassified Excavation	20.00	/ CY	=	16,000.00
106	9,800	CY	Imported Fill	20.00	/ CY	=	196,000.00
107	1,175	CY	12-inch Thick Gravel Surface (8-foot Wide)	40.00	CY	=	47,000.00
108	1	LS	Miscellaneous Signage	5,000.00	/ LS	=	5,000.00
109	11,500	SY	Erosion Control Blanket	3.50	/ SY	=	40,250.00
110	3	AC	Apply Topsoil and Seed Disturbed Areas	6,000.00	/ AC	=	18,000.00
111	325	LF	Railing	40.00	/ LF	=	13,000.00
112	1	LS	Slope Stabilization and Walls	171,000.00	/ LS	=	171,000.00
113	2,790	SY	Geogrid Reinforcement	5.00	/ SY	=	13,950.00
114	500	LF	Suspension Boardwalk Structure	300.00	/ LF	=	150,000.00
			TOTAL PRICE FOR BASE BID				$ 744,864.00
			TOTAL WITH 20% CONTINGENCY & 15% DESIGN/CA				$ **1,005,566.40**

Asphalt Surfacing Alternate

ALT1-1	2,790	SY	2 1/2-inch Thick Asphalt Surface (8-foot Wide) with 10-inch Thick Base Coarse (Includes Deduct of 2-inches of Gravel)	50.00	/ SY	=	139,500.00
ALT1-2	1	LS	Miscellaneous Striping	1,000.00	/ LS	=	1,000.00
			TOTAL PRICE FOR ALTERNATE 1				$ 140,500.00
			TOTAL PRICE WITH ALTERNATE 1				$ 885,364.00
			TOTAL WITH 20% CONTINGENCY & 15% DESIGN/CA				$ **1,195,241.40**

ENGINEER'S OPINION OF PROBABLE COST BASED ON CONCEPT DESIGN PLANS

RIMROCKS TO VALLEY BIKE AND PEDESTRIAN FEASIBILITY STUDY
27th Street Trail

ITEM NO.	EST. QTY		DESCRIPTION	UNIT PRICE		TOTAL PRICE
				$		$
100	1	LS	Mobilization/Demobilization (5%)	8,942.50 /	LS =	8,942.50
101	1	LS	Taxes, Bonds, Insurance (3%)	5,365.50 /	LS =	5,365.50
102	1	LS	Stormwater Management and Erosion Control	10,000.00 /	LS =	10,000.00
103	1	LS	Traffic Control During Construction	5,000.00 /	LS =	5,000.00
104	1.25	AC	Clearing and Grubbing	6,200.00 /	AC =	7,750.00
105	700	CY	Unclassified Excavation	20.00 /	CY =	14,000.00
106	50	CY	Imported Fill	20.00 /	CY =	1,000.00
107	1,100	CY	12-inch Thick Gravel Surface (8-foot Wide)	40.00	CY =	44,000.00
108	1	LS	Miscellaneous Signage	5,000.00 /	LS =	5,000.00
109	6,000	SY	Erosion Control Blanket	3.50 /	SY =	21,000.00
110	1.25	AC	Apply Topsoil and Seed Disturbed Areas	6,000.00 /	AC =	7,500.00
111	590	LF	Railing	40.00 /	LF =	23,600.00
112	1	LS	Slope Stabilization and Walls	27,000.00 /	LS =	27,000.00
113	2,600	SY	Geogrid Reinforcement	5.00 /	SY =	13,000.00

TOTAL PRICE FOR BASE BID	$ 193,158.00
TOTAL WITH 20% CONTINGENCY & 15% DESIGN/CA	$ **260,763.30**

Asphalt Surfacing Alternate

ALT1-1	2,600	SY	2 1/2-inch Thick Asphalt Surface (8-foot Wide) with 10-inch Thick Base Coarse (Includes Deduct of 2-inches of Gravel)	50.00 /	SY =	130,000.00
ALT1-2	1	LS	Miscellaneous Striping	1,000.00 /	LS =	1,000.00

TOTAL PRICE FOR ALTERNATE 1	$ 131,000.00
TOTAL PRICE WITH ALTERNATE 1	$ 324,158.00
TOTAL WITH 20% CONTINGENCY & 15% DESIGN/CA	$ **437,613.30**

SANDERSON STEWART

DESIGNWORKSHOP

Terracon
Consulting Engineers & Scientists

Rimrocks to Valley Bike/Ped Study Review Schedule:

TAC	Presentation/Action - Thursday, May 5th at 10:30 a.m. 1st Floor Conference Room, Miller Building, 2825 3rd Avenue North
Planning Board #1	Presentation of Item - Tuesday, May 10th at 6:00 p.m. 1st Floor Conference Room, Miller Building, 2825 3rd Avenue North
Planning Board #2	Public Hearing/Action - Tuesday, May 24th - Publish 5/5 & 5/19 - Same location
Council Work Session	Presentation - Monday, July 5th at 5:30 p.m. - Items to Wynnette Thursday 6/30
Council Meeting	Action - Monday, July 11th at 6:30 p.m. - memo by Thursday 6/23 - Both meeting held in the City Council Chambers, 2nd Floor City Hall
County Discussion	Discussion - Monday, June 20th at 2:00 p.m. – Memo week before
Commissioner Meeting	Presentation/Action - Tuesday June 28th at 9:30 a.m.- Both meetings held in the County Commissioners Board Room, 4th Floor, County Courthouse
PCC	Final Action - Tuesday July 19th at 12:00 p.m. - 4th Floor County Courthouse, Commissioner Board Room

Planning Board Meeting I (2nd Tuesday) **8. b.**

Meeting Date: 05/10/2016

Information

Subject

PRESENTATION/DISCUSSION. WEST END MULTI-MODAL TRAFFIC MODELING STUDY. Scott Walker, Transportation Coordinator.

West End Multi-Modal Planning Study

In recent years, land development in the region of Billings that lies west of Shiloh Road has brought about an increase in traffic volumes that directly impacts safety, traffic operations and access. As more and more rooftops are constructed in this area, demand for pedestrian and bicycle facilities to support multi-modal transportation options is also rapidly increasing. The intent of this study is to provide the City of Billings and Yellowstone County with a tool for planning improvement projects to meet the demands of a vibrant and growing region of our great City. The ***Draft*** West End Multi-Modal Planning Study is now available for review. Click ***here.*** Information can be found here:
Information can be found here: http://sandersonstewart.com/projects/westend/

Attachments

Westend Study Rw Schedule

West End Multi-Modal Traffic Modeling Study Review Schedule:

TAC	Presentation/Action - Thursday, May 5th at 10:30 a.m. 1st Floor Conference Room, Miller Building, 2825 3rd Avenue North
Planning Board #1	Presentation of Item - Tuesday, May 10th at 6:00 p.m. 1st Floor Conference Room, Miller Building, 2825 3rd Avenue North
Planning Board #2	Public Hearing/Action - Tuesday, May 24th - Publish 5/5 & 5/19 - Same location
Council Work Session	Presentation - Monday, June 20th at 5:30 p.m. - Items to Wynnette Thursday 6/16
Council Meeting	Action - Monday, June 27th at 6:30 p.m. - memo by Thursday 6/9 - Both meeting held in the City Council Chambers, 2nd Floor City Hall
County Discussion	Discussion - Monday, June 20th at 2:00 p.m. – Memo week before
Commissioner Meeting	Presentation/Action - Tuesday June 28th at 9:30 a.m.- Both meetings held in the County Commissioners Board Room, 4th Floor, County Courthouse
PCC	Final Action - Tuesday July 19th at 12:00 p.m. - 4th Floor County Courthouse, Commissioner Board Room

Planning Board Meeting I (2nd Tuesday) **8. c.**

Meeting Date: 05/10/2016

Information

INTRODUCTION

On April 1, 2016, the Planning Division received an application for review and preliminary approval of a 26-unit condominium subdivision on Lots 6 and 7, Block 4, West King Commercial Park Subdivision. The property is located on the west side of Black Hawk Street north of King Avenue West, between South 64th Street West and South 72nd Street West. The property is not within the County zoning jurisdiction and condominium development was not originally contemplated with the subdivision, therefore, in accordance with Chapter 8 of the County Subdivision Regulations, this condominium development must be reviewed as a Major Subdivision. The Planning Board will conduct a plat review at this meeting and a public hearing on May 24, 2016.

RECOMMENDATION

Staff recommends that the Planning Board recommend that the Yellowstone County Board of County Commissioners conditionally approve the preliminary plat of the Westfield Warehouses and adopt the Findings of Fact as presented in the staff report.

PROPOSED CONDITIONS OF APPROVAL

Pursuant to Section 76-3-608(4), MCA, the following conditions are recommended to reasonably minimize potential adverse impacts identified within the Findings of Fact.

1. To minimize the effects on public health and safety, prior to final plat approval the subdivider shall receive approval from the MDEQ / RiverStone Health for the proposed cistern, septic system, and storm water management on the site.
2. Minor changes may be made in the SIA and final documents, as requested by the Planning and/or Public Works Departments to clarify the documents and bring them into the standard acceptable format.
3. The final plat shall comply with all requirements of the County Subdivision Regulations, rules, regulations, policies, and resolutions of the Yellowstone County, and the laws and Administrative Rules of the State of Montana.

VARIANCES REQUESTED

No variances were requested.

PROCEDURAL HISTORY

- A pre-application meeting was held on March 31, 2016 for this proposal. It was determined that this is a major subdivision for condominium use which follows the major subdivision review process.
- The preliminary plat application was submitted to the Planning Division on April 1, 2016.
- A Department Review Meeting was held on April 14, 2015, on this plat application.
- The Yellowstone County Board of Planning will hold a plat review for this application at its May 10, 2016, meeting.
- The Yellowstone County Board of Planning will conduct a public hearing on this application at its meeting on May 24, 2016.
- The Yellowstone County Board of County Commissioners will be considering the application at its regular meeting on June 14, 2016.

PLAT INFORMATION

General location:	West side of Black Hawk Street and North of the 6400 block of King Avenue West
Legal Description:	Lots 6 and 7, Block 4, West King Commercial Park Subdivision
Subdivider and Owner:	EEC Inc.
Engineer and Surveyor:	Eggart Engineering Company
Existing Zoning:	None
Existing land use:	Vacant
Proposed land use:	Commercial uses
Gross area:	2.14 acres
Net area:	2.14 acres
Proposed number of lots:	26 condominium units on two lots
Lot size:	2.14 acres
Parkland requirements:	Not required for commercial subdivisions

Attachments

Findings of Fact
Proposed site plan
Entire Westfield Warehouse site
Aerial View

FINDINGS OF FACT

The City/County Planning staff has prepared the Findings of Fact for the preliminary plat of Westfield Warehouses Amended. These findings are based on the preliminary plat application and address the review criteria required by the Montana Subdivision and Platting Act (76-3-608, MCA) and the Yellowstone County Subdivision Regulations (YCSR).

A. What are the effects on agriculture and agricultural water user facilities, local services, the natural environment, wildlife, wildlife habitat, and public health and safety? (76-3-608(3)(a), MCA) (Section 3.2.H.2., YCSR)

1. **Effect on agriculture and agricultural water user facilities**

   The Big Ditch and Birely Drain are located north of the subject property and are outside the West King Commercial Park Subdivision. There are no water rights with the subject property.

2. **Effect on local services**

   a. Utilities – Cisterns are proposed for this subdivision along with septic facilities. Any proposed onsite water and septic systems must comply with the State of Montana Department of Environmental Quality (MDEQ). Preliminary water and sanitation information has been submitted for review by RiverStone Health and MDEQ. **(Condition #1)**

   MDU and Yellowstone Valley Electric Cooperative will provide gas and electrical utilities as necessary. There is an existing 10 foot wide utility easement where the utility companies can run services to provide utilities to the subject property.

   b. Storm water – Storm water will be retained onsite and will be in compliance with Section 4.7, YCSR. A storm water management plan will be submitted and approved by MDEQ prior to final plat approval. **(Condition #1)**

   c. Solid Waste – Solid waste disposal will be provided through a private hauler. The Billings landfill has the capacity to accommodate waste from this subdivision.

   d. Streets – Access to the subdivision is from Black Hawk Street which is off of King Avenue West, no additional street right-of-way is necessary. Black Hawk Street is built to County Road Standards with a 24 foot asphalt top and 2 foot gravel shoulders on each side. It is in a 70 foot right of way with drainage ditches on both sides. There is an existing RSID-M for this road and it will be expanded to include the proposed condominiums with this application. Any culvert installed in the drainage swale will be a minimum of 15 inches in diameter. In the summer of 2015, West King Commercial Park Subdivision completed the internal street on the north, Western Way, which provides 2

entry/exit points from the subdivision, one on King Avenue West and one to South 64th Street West.

e. **Emergency Services** – The subject property is within the jurisdiction of the Billings Urban Fire Service Area (BUFSA) and the Yellowstone County Sheriff's Department. The two main concerns of the fire department are having adequate access to any structures and an adequate water supply for fighting fires. The proposed condos will be serviced by an internal drive access that will be a minimum of 30 feet in width and constructed to meet the fire department needs. Also, in accordance with Section 4.14.C. of the County Subdivision Regulations, which describes requirements for fire suppression facilities for commercial subdivisions, the existing subdivision, West King Commercial Park, has an existing 30,000 gallon underground storage tank and dry hydrant system in the subdivision within 1,400 driving feet of Lots 6 and 7. There is also another 30,000 gallon dry hydrant system within ½ driving mile to the west on Lohwest Lane. West King Commercial Park has an existing RSID-M in place for the dry hydrant in the subdivision and it will be expanded to include the condominiums proposed with this application.

   The Sheriff's Department will provide law enforcement services for the subdivision and does not have any concerns.

f. **Mail Delivery -** The United States Postal Service will service the new lots. A centralized mail delivery area is proposed and will be approved by the USPS before installation.

3. **Effects on the natural environment**

   No alteration of any stream will occur with this subdivision.

   The development will use noxious weed control measures to prevent the spread of noxious weeds to adjacent developed or agricultural land. In accordance with state law, the developer has a weed control plan in place with the County Weed Department and will revise the weed control plan recommendations based on required site visits. The Weed Control Plan was approved April 19, 2016.

   There are no apparent or known natural hazards on the property.

4. **Effects on wildlife and wildlife habitat**

   There are no known endangered or threatened species on the property. Montana Fish, Wildlife and Parks (FWP) was provided information about the proposed subdivision and indicated that they had no concerns with the proposed development.

5. **Effects on public health and safety**

   There are no known manmade public safety hazards that would affect this subdivision. Plans and designs for wells and septic systems will be reviewed and

approved by MDEQ prior to final plat approval. Fire and emergency services are provided for this proposed subdivision, including a water supply for firefighting purposes. There is an existing 30,000 gallon dry hydrant system in place within the West King Commercial Park Subdivision.

B. Was an Environmental Assessment required? (76-3-603, MCA)(Section 9.2.C.1, YCSR)

An environmental assessment was not required for this subdivision as per Section 9.2.C.1., YCSR. A Summary of Probable Impacts was provided. No major issues were identified.

C. Conformance with the Yellowstone County – City of Billings 2008 Growth Policy Update, the 2011 Billings Area Bikeway and Trail Master Plan, and the Billings Urban Area Transportation Plan 2009 Update (Section 3.2.H.4., YCSR)

1. <u>Yellowstone County – City of Billings 2008 Growth Policy Update</u>

The proposed subdivision is consistent with the following goals of the growth policy:

- Goal: Controlled weed populations. (p. 9)
  The developer has an existing weed control plan and will modify it as needed based on required site visits by the County Weed Department.

- Goal: Predictable land use decisions that are consistent with neighborhood character and land use patterns. (p. 6)
  The proposed subdivision is not within the County zoning jurisdiction. It is located in an area of the county that has a mix of agricultural, residential and commercial uses. The West King Commercial Park Subdivision and the subdivision directly to the west of the subject property are both developed for commercial uses. Therefore, it is consistent with the neighborhood character in this area.

- Goal: More housing and business choices within each neighborhood (p.6).
  The proposed subdivision would allow for additional business development at this location.

2. <u>2001 West Billings Plan</u>

The West Billings Plan identifies commercial nodes at intersections of arterial streets at a distance of not less than 2 miles apart. This is to establish development patterns that use land more efficiently and reduce the possibility of 'strip' development along arterial streets.

PG1.B.2 Limit community commercial centers to appropriate intersections of arterial streets and spaced no less than approximately two miles apart.

Community commercial centers should be compatible with the surrounding area and designed to serve the overall West Billings community unless otherwise approved by the governing bodies.

3. **Billings Urban Area Transportation Plan 2014**
   King Avenue West is classified as a major arterial street and is expected to handle the additional traffic generated by this commercial subdivision. No additional right-of-way is required from this subdivision. The proposed subdivision maintains the street hierarchy defined in the Transportation Plan.

4. **Billings Area Bikeway and Trail Master Plan**
   The subdivision does not have any bike trails identified internally and the Plan does not identify a future bike lane along King Avenue West in this location. The nearest on-street bikeway is identified on South 64th Street West. Currently there are no bike lanes, or even shoulders, on South 64th St. West, but these facilities may be constructed when future upgrades to the road are made. A waiver of right to protest future RSID's for street improvements is being signed and recorded with this subdivision.

D. Does the subdivision conform to the Montana Subdivision and Platting Act and to local subdivision regulations? (76-3-608(3)(b), MCA) (Section 3.2.H.3.a., YCSR)

The subdivision, with the proposed conditions, satisfies the requirements of the Montana Subdivision and Platting Act and conforms to the design standards specified in the Yellowstone County Subdivision Regulations. The subdivider and the local government have complied with the subdivision review and approval procedures set forth in the local and state subdivision regulations.

E. Does the proposed subdivision conform to all requirements of the zoning in effect? (Section 3.2.H.3.e., YCSR)

The subject property is outside of the County zoning jurisdiction.

F. Does the proposed plat provide easements for the location and installation of any utilities? (76-3-608(3)(c), MCA) (Section 3.2.H.3.b., YCSR)

Utility easements have been provided on the face of the plat for both electric and natural gas, as requested by MDU and YVEC.

G. Does the proposed plat provide legal and physical access to each parcel within the subdivision and notation of that access on the plat? (76-3-608(3)(d), MCA) Section 3.2.H.3.c., YCSR)

Access to the subdivision lots will be from Black Hawk Street and Western Way that connect to King Avenue West and to South 64th Street West.

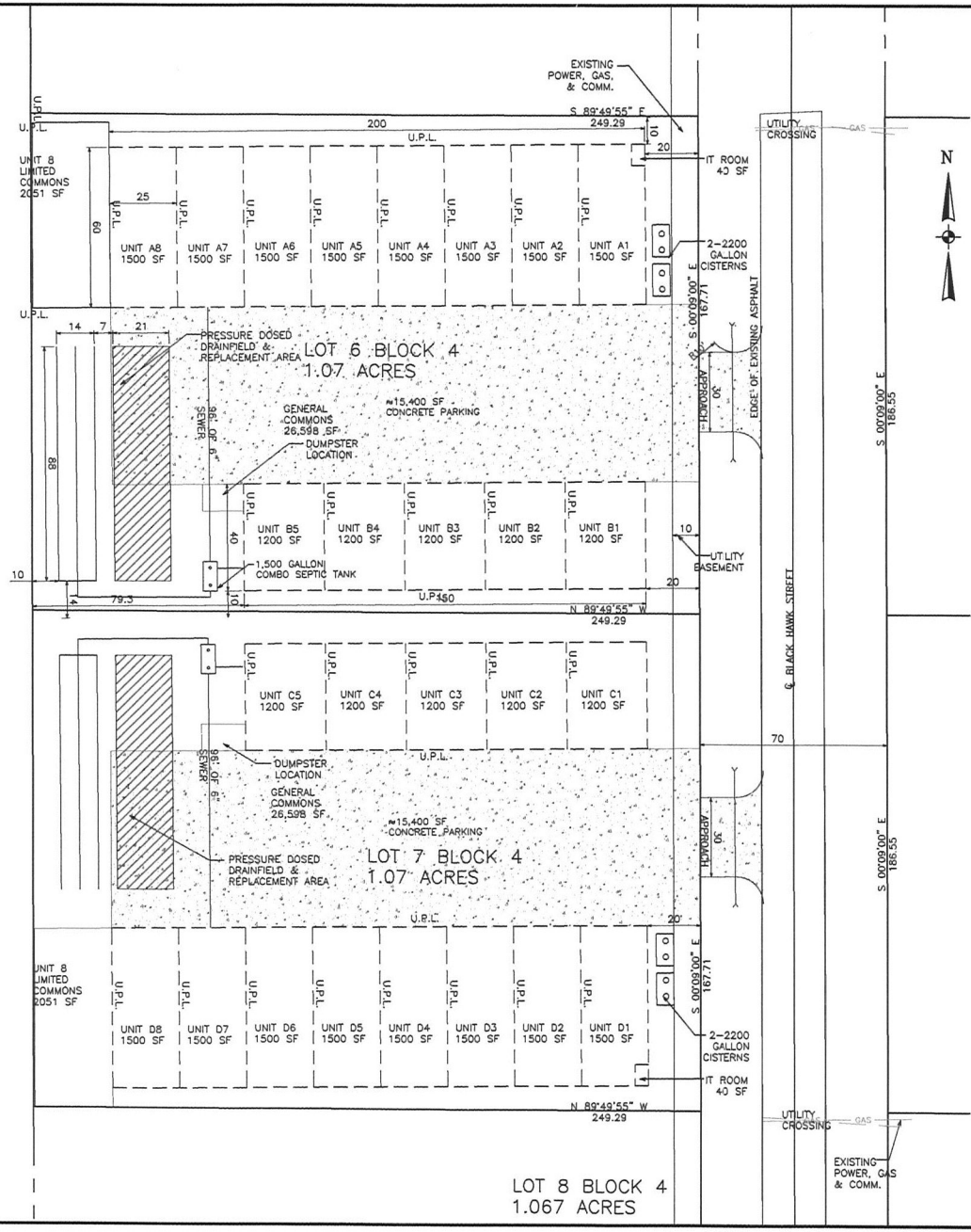
CONCLUSIONS OF FINDINGS OF FACT

- The preliminary plat of Westfield Warehouses, Amended, does not create any adverse impacts that warrant denial of the subdivision.

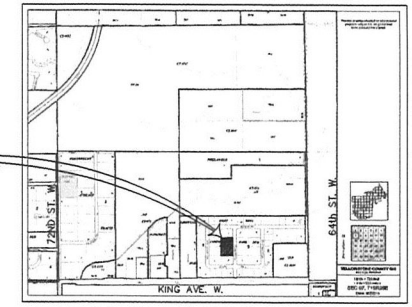
- With the proposed conditions, Westfield Warehouses, Amended, is in compliance with the Montana Subdivision and Platting Act and the Yellowstone County Subdivision Regulations.

- New water and wastewater facilities will be approved through the Montana Department of Environmental Quality.

CONCEPTUAL DRAWING
WESTFIELD WAREHOUSES PHASE 2
BEING LOTS 6 & 7, BLOCK 4
OF WEST KING COMMERCIAL PARK SUBDIVISION



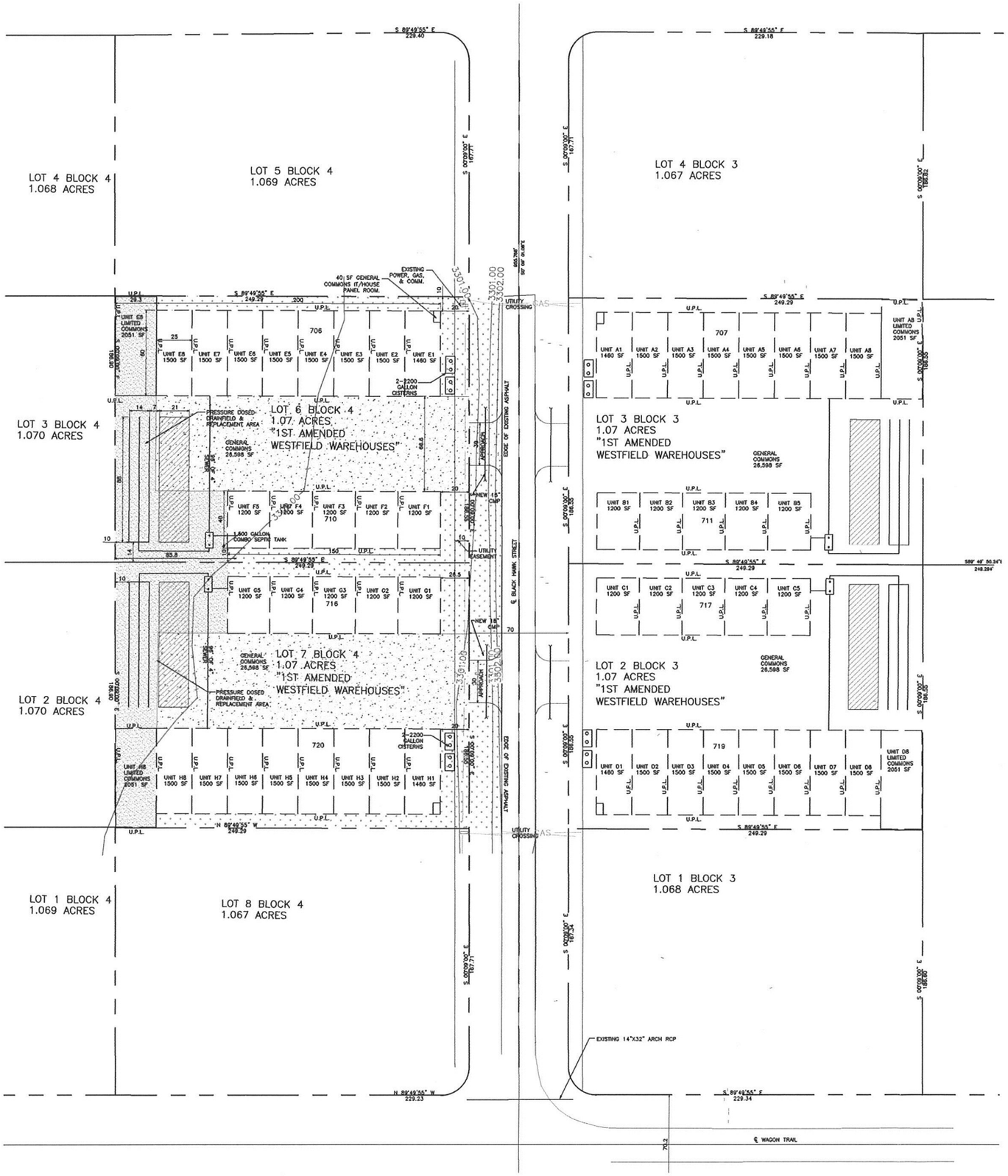
VICINITY MAP



CLERK AND RECORDER FILING INFORMATION

EXHIBIT "B"
PRELIMINARY SITE PLAN
1ST AMENDED
WESTFIELD WAREHOUSES

BEING LOTS 2 & 3, BLOCK 3 AND LOTS 6 & 7, BLOCK 4 WEST KING COMMERCIAL PARK SUBDIVISION
LOCATED IN THE SE 1/4 OF SECTION 7, TOWNSHIP 1 SOUTH, RANGE 25 EAST, P.M.M., YELLOWSTONE COUNTY, STATE OF MONTANA



N

SCALE: 1" = 40'

AREA CALCULATIONS FOR 1ST AMENDED WEST FIELD WAREHOUSES

707 BLACK HAWK STREET		
UNIT A1	1,460	SQ. FT.
UNIT A2	1,500	SQ. FT.
UNIT A3	1,500	SQ. FT.
UNIT A4	1,500	SQ. FT.
UNIT A5	1,500	SQ. FT.
UNIT A6	1,500	SQ. FT.
UNIT A7	1,500	SQ. FT.
UNIT A8	1,500	SQ. FT.
711 BLACK HAWK STREET		
UNIT B1	1,200	SQ. FT.
UNIT B2	1,200	SQ. FT.
UNIT B3	1,200	SQ. FT.
UNIT B4	1,200	SQ. FT.
UNIT B5	1,200	SQ. FT.
717 BLACK HAWK STREET		
UNIT C1	1,200	SQ. FT.
UNIT C2	1,200	SQ. FT.
UNIT C3	1,200	SQ. FT.
UNIT C4	1,200	SQ. FT.
UNIT C5	1,200	SQ. FT.
719 BLACK HAWK STREET		
UNIT D1	1,460	SQ. FT.
UNIT D2	1,500	SQ. FT.
UNIT D3	1,500	SQ. FT.
UNIT D4	1,500	SQ. FT.
UNIT D5	1,500	SQ. FT.
UNIT D6	1,500	SQ. FT.
UNIT D7	1,500	SQ. FT.
UNIT D8	1,500	SQ.
706 BLACK HAWK STREET		
UNIT E1	1,460	SQ. FT.
UNIT E2	1,500	SQ. FT.
UNIT E3	1,500	SQ. FT.
UNIT E4	1,500	SQ. FT.
UNIT E5	1,500	SQ. FT.
UNIT E6	1,500	SQ. FT.
UNIT E7	1,500	SQ. FT.
UNIT E8	1,500	SQ. FT.
710 BLACK HAWK STREET		
UNIT F1	1,200	SQ. FT.
UNIT F2	1,200	SQ. FT.
UNIT F3	1,200	SQ. FT.
UNIT F4	1,200	SQ. FT.
UNIT F5	1,200	SQ. FT.
716 BLACK HAWK STREET		
UNIT G1	1,200	SQ. FT.
UNIT G2	1,200	SQ. FT.
UNIT G3	1,200	SQ. FT.
UNIT G4	1,200	SQ. FT.
UNIT G5	1,200	SQ. FT.
720 BLACK HAWK STREET		
UNIT H1	1,460	SQ. FT.
UNIT H2	1,500	SQ. FT.
UNIT H3	1,500	SQ. FT.
UNIT H4	1,500	SQ. FT.
UNIT H5	1,500	SQ. FT.
UNIT H6	1,500	SQ. FT.
UNIT H7	1,500	SQ. FT.
UNIT H8	1,500	SQ.
ALL UNITS:	71,840	SQ. FT.
LIMITED COMMON 707 UNIT A8	2,051	SQ. FT.
LIMITED COMMON 719 UNIT D8	2,051	SQ. FT.
LIMITED COMMON 706 UNIT E8	2,051	SQ. FT.
LIMITED COMMON 720 UNIT H8	2,051	SQ. FT.
GENERAL COMMON AREA	106,392	SQ. FT.
TOTAL:	186,436	SQ. FT.

SUBDIVISION DETAILS:

GROSS AREA: 4.28 ACRES
NET AREA: 4.28 ACRES
ROAD AREA: 0 ACRES (PRIVATE ACCESS)
NUMBER OF LOTS: 52
MAXIMUM LOT SIZE: 3,551 SQUARE FEET
MINIMUM LOT SIZE: 1,200 SQUARE FEET
PARK DEDICATION: 0.00 ACRES
EXISTING LAND USE: COMMERCIAL UNDEVELOPED
PROPOSED LAND USE: COMMERCIAL CONDO'S

AREA IS NOT ZONED

PROPOSED GRAVEL

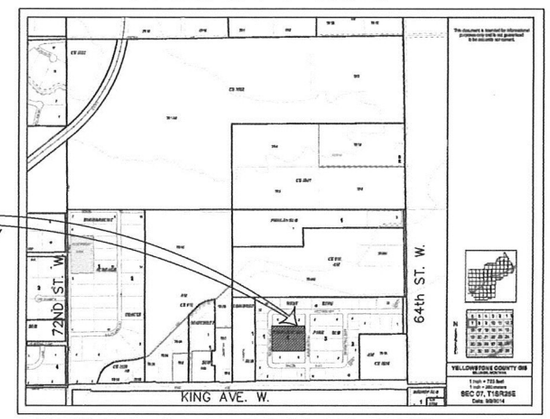
PROPOSED CONCRETE

PROPOSED 1-1/2" LANDSCAPE ROCK
NOTE:
LANDSCAPE ROCK ALONG ROAD TO BE PLACED SO TOP OF ROCK IS BELOW ROADWAY ELEV.

LIMITED COMMON, GENERAL COMMON & UNIT PROPERTY LINES

VICINITY MAP

THIS SURVEY



CLERK AND RECORDER FILING INFORMATION


Subject Property
WESTERN WY
LOHWEST WAY
LOHWEST LN
WAGON TRL W
BLACKHAWK ST
WAGON TRL E
WAGON TRL
KING AVE W

Planning Board Meeting I (2nd Tuesday) **8. d.**

Meeting Date: 05/10/2016

Information

INTRODUCTION

On April 1, 2016, Northern Engineering and Consulting Inc., agent for Felton Associates, Inc., applicant, applied for preliminary major plat approval for Emma Jean Heights Subdivision, 3rd Filing. The proposed subdivision creates 37 new lots to be completed in two phases for single-family residential development. This proposal is the third filing of a master planned subdivision that was originally reviewed in 2006. The subject property is generally located on the west side of Bitterroot Drive, south of Wicks Lane in the northeast Billings Heights. The property is zoned Residential-7000 (R-70). The Yellowstone County Board of Planning will review the plat at this meeting and conduct a public hearing on May 24, 2016.

RECOMMENDATION

Staff recommends that the Planning Board recommend conditional approval of the preliminary plat of Emma Jean Heights Subdivision, 3rd Filing to the City Council, and adopt the Findings of Fact as presented in the staff report.

PROPOSED CONDITIONS OF APPROVAL

Planning staff recommends the following conditions of approval:

1. To minimize effects on the BBWA ditch company access to perform maintenance, prior to final plat approval the applicant will coordinate easement locations with the BBWA, show them on the final plat, and provide the applicable easement documents.
2. To minimize effects on the BBWA ditch company and to ensure legal use of water, prior to final plat approval the applicant will add to the paragraph in the SIA under **Conditions That Run With The Land, E.** 'Residents of Emma Jean Height Subdivision are not allowed to pump water from the BBWA ditch without a permit from the BBWA'.
3. To minimize effects on local services and to ensure proper water distribution and pressure equalization within the subdivision, prior to final plat approval the applicant will provide construction drawings to the County Water District of Billings Heights (CWDBH) showing the connection of new water lines in Tania Circle to the new water lines in Jean Avenue to provide a looped water system going through Tania Circle and Jean Avenue.
4. To minimize the effects on local services and to ensure proper water line installation and the ability to perform repairs or make connections in the future, prior to final plat approval the applicant will provide to the CWDBH 'As Built' drawings of the existing water lines installed in Emma Jean Heights Subdivision, 2nd Filing, both phases 1 and 2.
5. To minimize the effects on local services and ensure proper sewer line installation and the ability to perform repairs or make connections in the future, prior to final plat approval the applicant will provide to the City of Billings Engineering Division 'As Built' drawings of the existing sewer lines

installed in Emma Jean Heights Subdivision, 2nd Filing, both phases 1 and 2.

6. To minimize the effects on public health and safety and meet the City of Billings Subdivision Regulations and City of Billings Fire Department Regulations that require two ways into and out of a major subdivision, prior to final plat approval the applicant with remove the gate and fencing that is across Columbine Drive between Emma Jean Heights Subdivision and the subdivision to the south, Shamrock Acreage Tracts, to allow full access between the two developments.
7. To mitigate the effects on local services and ensure park land is dedicated for public use per the Emma Jean Heights Master Plan updated with the 3rd Filing, prior to final plat approval language shall be added to **Section VI of the SIA** stating that: "Park land shown on the subdivision master plan for the 3rd Filing will be dedicated either in whole or in part as further filings of Emma Jean Heights Subdivision are platted until the total park land dedication of 4.5 acres that is shown on the master planned has been provided."
8. Minor changes may be made in the SIA and final documents, as requested by the Planning, Legal or Public Works Departments to clarify the documents and bring them into the standard acceptable format.
9. The final plat shall comply with all requirements of the City of Billings Subdivision Regulations, rules, regulations, policies, and resolutions of the City of Billings, and the laws and Administrative Rules of the State of Montana.

VARIANCES REQUESTED

No variances from the City Subdivision Regulations have been requested.

PROCEDURAL HISTORY

- A pre-application meeting was held on December 10, 2015 to discuss the proposal.
- The preliminary plat application was submitted to the Planning Division on April 1, 2016.
- A departmental review meeting was conducted on April 14, 2016.
- The preliminary plat was resubmitted with revisions based on department reviews on April 21, 2016.
- The Planning Board will review the plat on May 10, 2016.
- The Planning Board will conduct a public hearing on May 24, 2016, and forward a recommendation to the City Council.
- The City Council will consider the preliminary plat on June 27, 2016.
- The 60 working-day preliminary plat review period ends June 28, 2016.

PLAT INFORMATION

General location:	Near the southwest corner of Wicks Lane and Bitterroot Drive
Legal Description:	Emma Jean Heights Subdivision, 2nd Filing Lot 1, Block 19
Owner/Subdivider:	Felton Associates, Inc.
Engineer and Surveyor:	Northern Engineering and Consulting, Inc.
Existing Zoning:	R-70
Existing land use:	Vacant
Proposed land use:	Single-family residential

Gross and Net area:	9.81 acres; 6.79 acres
Proposed number of lots:	37 (19 in Phase 1, 18 in Phase 2)
Lot size:	Max: 22.52 acres Min.: 7,500 square feet
Parkland requirements:	Parkland requirements for this filings are 0.75 acres the applicant is providing the land.

Attachments

Findings of Fact
Proposed Plat
Master Plan
Aerial View

FINDINGS OF FACT

The Planning staff has prepared the Findings of Fact for the preliminary plat of Emma Jean Heights Subdivision, 3rd Filing and has provided them for review by the Planning Board, as follows:

A. What are the effects on agriculture, local services, the natural environment, wildlife, wildlife habitat, and public health, safety and welfare? [MCA 76-3-608 (3) (a) and BMCC 23-302.H.2.]

1. Effect on agriculture and agricultural water user facilities

The subject property was historically used for irrigated pasture and was the site of a gravel mine. It was annexed and master planned for development in 2006. It is adjacent to similar residential uses on all sides, and will provide community housing in an area that is not particularly productive for agriculture. It should not have a negative effect on the agriculture.

This 3rd Filing of the subdivision has some lots near the Billings Bench Water Association (BBWA) irrigation canal. No water rights are being transferred to new lot owners, and therefore the subdivision should not have an effect on agricultural water user facilities. The BBWA has asked for a 20 foot maintenance easement for a trackhoe to clean Lateral #1 every 5 years or as needed. There is an existing easement on the main ditch of 25 feet from centerline of ditch. The applicant needs to coordinate with the BBWA Ditch Company to make certain the easements are shown on the plat as required by the BBWA **(Condition #1).** Another concern expressed by the BBWA was people pumping water from the ditch without permits. In the SIA under **Conditions That Run With The Land, E.** the applicant will add to the paragraph language to inform future property owners they are not allowed to install a pump and take water out of the BBWA canal without a permit **(Condition #2).**

2. Effect on local services

a. **Utilities** – Water services to the subject property are provided by the County Water District of Billings Heights (CWDBH). The existing water mains in Tania Circle and Jean Avenue will be extended to serve the new lots. CWDBH has indicated that they are requiring the water lines to be installed to complete the loop. The subdivider needs to connect the water lines in Tania Circle to the water lines in Jean Avenue. The developer needs to connect new water lines in Tania Circle to the new water lines in Jean Avenue to complete a looped water line system at the intersection of Tania Circle and Jean Avenue **(Condition #3).** The improvements are subject to the review and approval by CWDBH prior to construction. As proposed with the completion of the looped water line in Tania Circle to Jean Avenue, the CWDBH finds that the water main extensions are acceptable.

   CWDBH has indicated that although what it is requiring and what is proposed for the new water lines is acceptable it is still waiting for the 'as built' drawings from Emma Jean Heights, 2nd Filing both Phases 1 and 2. As a condition of final

approval for this filing, the applicant will need to provide 'as built' drawings for the entire second filing **(Condition #4).**

Sanitary sewer service will be provided by the City of Billings by connecting to existing sewer mains in Tania Circle and Jean Avenue. As proposed, the City of Billings Public Works Department finds the sewer main extensions to be acceptable.

City of Billings Public Works has indicated that although what is proposed is acceptable it is still waiting for the 'as built' drawings from Emma Jean Heights, 2nd Filing both Phases 1 and 2. As a condition of final approval for this filing, the applicant will need to provide 'as built' drawings for the entire second filing **(Condition #5).**

MDU will provide gas services, and North Western Energy will provide electric services to the subdivision. Easements shall be shown on the face of the final plat as requested by these utility providers.

b. **Storm water** – A storm water master plan was reviewed in 2007 for the overall master planned area of Emma Jean Heights Subdivision. At this time, there are no nearby City storm sewer lines to which this development can connect. However, it is in the City's Capital Improvement Plan to install storm sewer in Wicks Lane west to Bitterroot Drive and then south on Bitterroot Drive to Anchor Avenue in the near future. This subdivision will be able to connect once the lines are installed. Until then, the subdivider has proposed to construct internal storm sewer lines draining to temporary retention ponds.

   At this time, storm water drainage for the public streets is proposed to be provided by curb and gutters that discharge into storm water pipes and eventually to retention areas on Lots 12 and 13, Block 2 of Emma Jean Heights Subdivision, 1st Filing and Lots 10 and 11, Block 10, of Emma Jean Heights Subdivision, 2nd Filing.

   In addition to the proposed storm water management facilities, a Storm Water Pollution Prevention Plan (SWPPP) will be required of the developer and construction contractors prior to site disturbance to ensure that storm drain facilities are not compromised during site and home construction.

   These and all other drainage improvements shall satisfy the criteria set forth by the *City of Billings Stormwater Management Manual* and will be subject to review and approval by the City Engineering Department.

c. **Solid waste** – The City of Billings will provide solid waste collection and disposal. The City's landfill has adequate capacity for this waste.

d. **Streets** – The proposed subdivision will be accessed by the extension of the existing streets from Anchor Avenue, Tania Circle and Jean Avenue. These streets will be built to the current design standards of 34-foot wide streets with curb, gutter and boulevard-style sidewalk within 56-foot rights-of-way. During the First Filing construction, a temporary gated emergency access road was constructed from the terminus of Anchor Avenue to the existing County gravel road, Columbine Drive, to the south. With this filing, this second access will need to be constructed to meet City street standards so that it functions as a full second access **(Condition #6).** Columbine Drive will still remain gravel as it exists off site within the County to the south.

   A Traffic Impact Study (TIS) was completed with the original Master Plan in order to evaluate the subdivision's impact on the street network in the surrounding area. Cash contributions have not been made up to this point of the development of Emma Jean Heights for future intersection improvements. Two intersections have been identified to have a noticeable traffic increase. These are Hawthorne Lane and Yellowstone River Road, and Wicks Lane and Hawthorne Lane. A proportionate contribution will be made with this third filing of $4,291.24 as described in the SIA for the two above mentioned intersections. The Bench Boulevard, Hilltop Road and Yellowstone River Road intersection was reviewed but that intersection has been upgraded with a roundabout by MDT. The Wicks Lane and Bitterroot Drive intersection was also reviewed but the impact was below the 2% threshold for contributions for improvements.

e. **Emergency services** – The Billings Police and Fire Departments will respond to emergencies within the proposed subdivision. The Police Department has no concerns with the proposal. The nearest fire station is located at 1601 St. Andrews Drive (Station #6).

   The main fire department concerns are access to the site, water supply, and hydrant availability. With this filing of Emma Jean Heights the applicant is required to make the connection to Columbine Drive to the south. This includes paving to the southern edge of this subdivision and removing the gate and fence that currently blocks the street from this subdivision to the development to the south **(Condition #6).** Current subdivision regulations require 2 ways in and out of a major subdivision. If the second full access through Columbine Drive is constructed, the Fire Marshal indicated that the street layout will be acceptable.

   In the SIA under **III Emergency Service,** the applicant indicates he will be installing 'An operational fire hydrant within 600 feet of the furthest portion of a residence under construction and 400 feet for commercial development. The fire hydrants will be installed with infrastructure construction and streets.

   The subdivision is located within the ambulance service area of American Medical Response (AMR).

f. **Schools** – School District #2 provides educational services to elementary through high school students. Beartooth Elementary School, Castle Rock Middle School, and Skyview High School will serve the children in this subdivision. Previous responses from the district's facilities director regarding these schools indicated that both Beartooth and Castle Rock are currently overcrowded. School District #2 is currently constructing a new Middle School that will be open in the fall of 2016 and the District will be switching to K-5 elementary schools, moving 6th graders to middle schools. These changes should help eliminate overcrowding of schools in the Billings Heights, according to School District #2.

g. **Parks and Recreation** – The parkland dedication requirement for this subdivision amounts to 0.75 acres (11% of the net single family lot area). The subdivider had master planned the subdivision park land areas for the entire subdivision during the First Filing. Based on the Planning Board's recommendation to City Council at that time, the park master plan includes a 2.8 acre centralized neighborhood park just west of this filing, and an additional 1.7 acres of linear parkland along the BBWA canal, for a total of 4.5 acres of parkland. At this time, the subdivider is proposing to provide 0.75 acres of land dedication for parkland at the northeast corner of Tania Circle and what will be Emma Avenue to meet the park land dedication required for the 3rd Filing.

   City of Billings Parks, Recreation and Public Lands (PRPL) is concerned the parkland dedication of one small piece at a time as each filing is platted may result in challenges to tracking dedications and ensuring the total park land dedication originally proposed is provided when all filings of the subdivision are complete. Therefore, to ensure the parkland as shown on the masterplan as updated with this 3rd Filing is provided, staff is proposing a condition that language be added to Section VI of the SIA stating that: "Park land shown on the subdivision master plan for the 3rd Filing will be dedicated either in whole or in part as further filings of Emma Jean Subdivision are platted until the total park land dedication of 4.5 acres that is master planned has been provided (**Condition #7**).

h. **Mail Delivery -** The United States Postal Service will provide postal service to the subdivision. With the previous filing the developer provided centralized delivery facilities and the same is proposed for this filing. The developer will consult with the USPS prior to placement of the centralized mail boxes.

3. Effect on the natural environment

The subject property is relatively flat with a slight slope to the east. A preliminary geotechnical evaluation was done for the subject area in December of 2006 to investigate soil, rock, and groundwater conditions and provide recommendations to support design and construction of foundation and drainage elements. The major findings indicated that the area is characterized by lean clay alluvium over poorly graded gravel with silt and sand, and shale bedrock. Construction on these substrates is fairly unrestricted, however, relatively high ground water will limit foundation depths to 7 feet maximum below grade.

The City Building Official has reviewed this geotechnical report and made notes on its recommendations that will be enforced at the time of building permit issuance and subsequent inspections as has been taking place with both the 1st and 2nd Filings.

4. Effect on wildlife and wildlife habitat

There are no known endangered or threatened species on the property. There is a note in the SIA that warns future lot owners of the presence of deer in the area, which may cause damage to their landscaping. This subdivision should have a minimal effect on wildlife and wildlife habitat.

5. Effect on the public health, safety and welfare

The subdivision is located in an area with no known natural hazards. Fire hydrants will be constructed to meet fire department requirements. The effects on public health and safety should be minimal.

B. Was an Environmental Assessment required? [(MCA 76-3-616 and BMCC 23-302.H.1.]

The proposed subdivision is exempt from the requirement for an Environmental Assessment pursuant to Section 76-3-616, MCA.

C. Does the subdivision conform to the Yellowstone County-City of Billings 2008 Growth Policy, the Urban Area Transportation Plan, 2009 Update, and the Billings Area Bikeway and Trail Master Plan? [BMCC 23-302.H.4.]

1. Yellowstone County-City of Billings 2008 Growth Policy

The proposed subdivision is consistent with the following goals of the Growth Policy:

a. Goal: Predictable land use decision that are consistent with neighborhood character and preferred land use patterns identified in neighborhood plans. (p. 6)

b. Goal: Contiguous development focused in and around existing population centers separated by open space. (p.6)

c. Goal: Affordable housing for all income levels dispersed throughout the City. (p. 6)

d. Goal: More housing and business choices within each neighborhood. (p. 6)

2. Billings Heights Neighborhood Plan

The Billings Heights Neighborhood Plan identifies this area for medium density residential development on its Future land Use Map, as this area was not yet annexed or developed when the Plan was adopted. The subdivision meets the following goals of the Heights Neighborhood Plan:

a) **Increase extent and quality of non-motorized transportation facilities (Transportation Goal, Page 17).** The provision of a trail corridor along the BBWA Canal through the subdivision from Bitterroot Drive and Hawthorne Lane is a significant amenity for the neighborhood and the Heights overall.

b) **Provide safe, good quality and affordable housing in the Heights. Develop housing patterns that are compatible with existing neighborhoods. Encourage high density multi-family development along arterial routes. Maintain similar housing in established neighborhoods (Land Use Goal, Page 19).** This subdivision provides medium density residential single-family development in a neighborhood with existing single family and some two-family development.

c) **Encourage infill housing (Housing Goal, Page 23).** This property is surrounded by existing City and County development on the north, south, east and west and municipal services are already provided to much of the neighborhood making development of this property logical to provide municipal services efficiently.

3. Urban Area Transportation Plan 2009 Update

The proposed subdivision adheres to the goals and objectives of the 2014 Transportation Plan Update and preserves the street network and street hierarchy specified in the plan.

4. Billings Area Bikeways and Trail Master Plan

The proposed subdivision lies within the jurisdiction of the BABTMP. The Plan identifies a potential multi-use trail along the south side of the BBWA canal. The developer started construction of a trail along the BBWA with the first filing, and will continue its development with subsequent filings. This third filing has some lots that will have BBWA along the rear property line. The applicant will be continuing the multi-use trail along the south side of the BBWA canal.

D. Does the subdivision conform to the Montana Subdivision and Platting Act and to local subdivision regulations? [MCA 76-3-608 (3) (b) and BMCC 23-302.H.3.a.]

The proposed subdivision satisfies the requirements of the Montana Subdivision and Platting Act and conforms to the design standards specified in the local subdivision regulations. The subdivider and the local government have complied with the subdivision review and approval procedures set forth in the local and state subdivision regulations.

E. Does the proposed subdivision conform to all requirements of the zoning in effect? [BMCC 23-302.H.3.e.]

The subject property is located within the R-70 zoning district. All development shall comply with the standards set forth in Section 27-308, BMCC. Final zoning compliance will be determined at the time of the building permit.

F. Does the proposed plat provide easements for the location and installation of any utilities? [MCA 76-3-608 (3) (c) and BMCC 23-302.H.3.b.]

The subdivider shall provide utility easements as requested by the City, MDU and NWE on the face of the final plat.

G. Does the proposed plat provide legal and physical access to each parcel within the subdivision and notation of that access on the plat? [MCA 76-3-608 (3) (d) and BMCC 23-302.H.3.c.]

Legal and physical access is provided to the proposed lots from Emma Avenue, Jean Avenue, Anchor Avenue and Columbine Drive. These streets connect to existing street network from the first and second filings, and out to Bitterroot Drive.

CONCLUSIONS OF FINDINGS OF FACT

- The preliminary plat of Emma Jean Heights Subdivision, 3rd Filing does not create any adverse impacts that warrant denial of the subdivision.

- The proposed subdivision conforms to several goals and policies of the 2008 Growth Policy and does not conflict with the Transportation or Bikeway and Trail Plans.

- The proposed subdivision complies with state and local subdivision regulations, local zoning, and provides legal and physical access to each lot.

- Any potential negative or adverse impacts will be mitigated with the proposed conditions of approval.

RECOMMENDATION

Staff recommends that the Planning Board recommend conditional approval of the preliminary plat of Emma Jean Heights Subdivision, 3rd Filing, to the City Council, and adopt the Findings of Fact as presented in the staff report.

ATTACHMENT

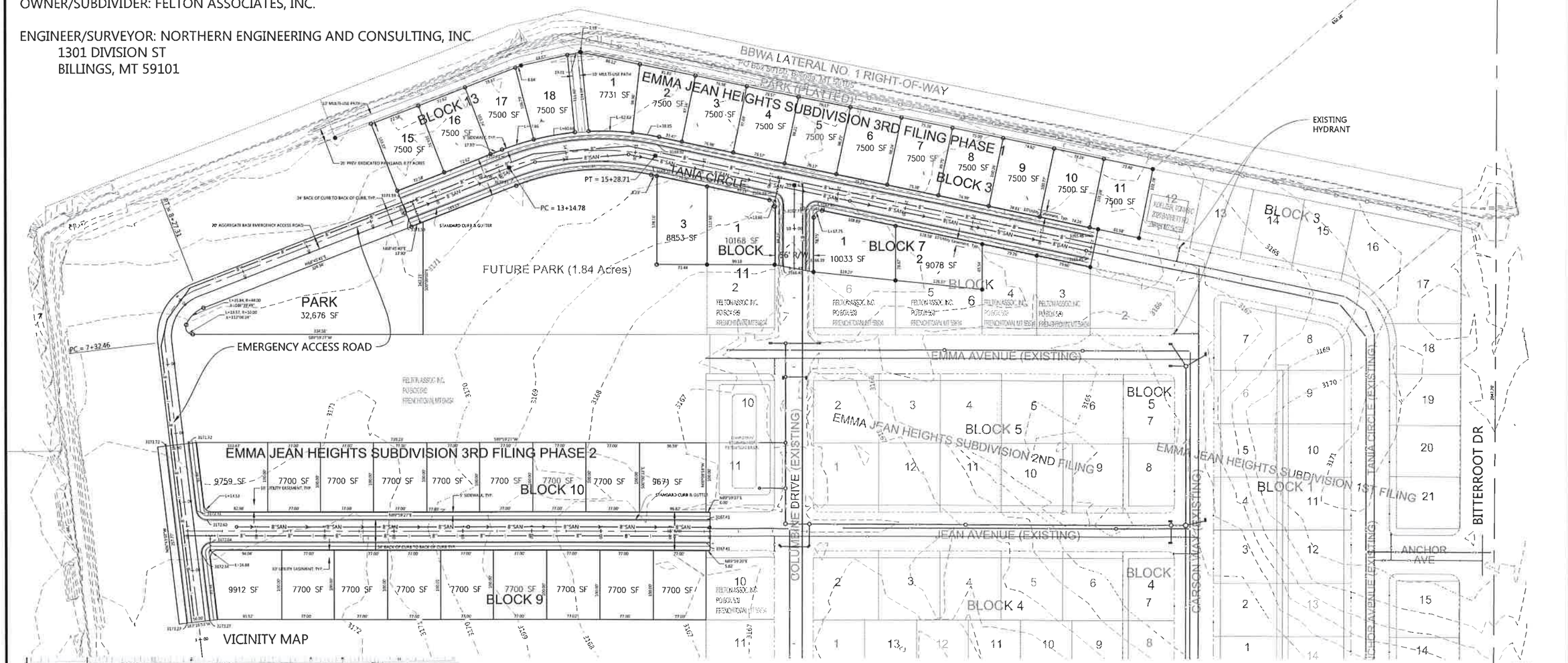
A: Preliminary Plat and Associated Documents

EMMA JEAN HEIGHTS SUBDIVISION 3RD FILING, PHASES 1 & 2, PRELIMINARY PLAT

BEING LOTS 1-11 OF BLOCK 3, LOTS 1-2 OF BLOCK 7,
LOTS 1 AND 3 OF BLOCK 11, AND LOTS 15-18 OF BLOCK 13
SITUATED IN THE NE ¼ OF SECTION 23
T1N, R26E, P.M.M.
CITY OF BILLINGS, YELLOWSTONE COUNTY, MONTANA

OWNER/SUBDIVIDER: FELTON ASSOCIATES, INC.

ENGINEER/SURVEYOR: NORTHERN ENGINEERING AND CONSULTING, INC.
1301 DIVISION ST
BILLINGS, MT 59101



0 70 140

LEGEND
- FIRE HYDRANT
- WATER VALVE
- WATER TEE
- MANHOLE
- PROPOSED SANITARY SEWER
- PROPOSED WATER LINE
- EXISTING UTILITY LINE

ALL ELEVATIONS ARE TO FLOWLINE OF CURB UNLESS OTHERWISE NOTED

CONSIDERING THE BASIS OF BEARING TO BE THE EAST LINE OF THE NE ¼ OF SECTION 23, T1N R26E, SAID LINE HAVING A BEARING OF S00°15'32"W

NUMBER OF LOTS: 37 (19 PHASE 1, 18 PHASE 2)
MAX LOT AREA: 10,168 SF
MIN LOT AREA: 7,500 SF
AREA OF PARKLAND: 3.36 ACRES
LINEAR FEET OF STREETS: 2161 LF
NET AREA: 6.79 ACRES
GROSS AREA: 9.81 ACRES
ZONING EXISTING: R-7000
PROPOSED: R-7000
LAND USE EXISTING: VACANT
PROPOSED: SINGLE FAMILY RESIDENTIAL

-WATER TO BE PROVIDED BY HEIGHTS WATER DISTRICT (CONNECTION TO LINES INSTALLED IN 2ND FILING).
-STORM WATER TO DRAIN TO EXISTING TEMPORARY RETENTION BASINS IN 2ND FILING AS DISCUSSED IN PREVIOUSLY APPROVED SIA AND MASTER PLAN.
-SANITARY SEWER SERVICE TO BE PROVIDED BY CITY OF BILLINGS AND TO BE CONNECTED TO 2ND FILING LINES.

EMMA JEAN HEIGHTS 3RD FILING PHASE 1 SUBDIVISION PLAT YELLOWSTONE COUNTY, MONTANA	JOB NO : 15-128
	DATE: 2016-02-18
NORTHERN ENGINEERING & CONSULTING, INC. 1301 Division Street, Billings, MT 59101 - 6050 Phone: 406-839-2217, 406-839-2218. Fax: 406-281-8258 email: info@neclmt.com, web: www.neclusa.com	SHEET : 1 OF 1

MASTER PLAN

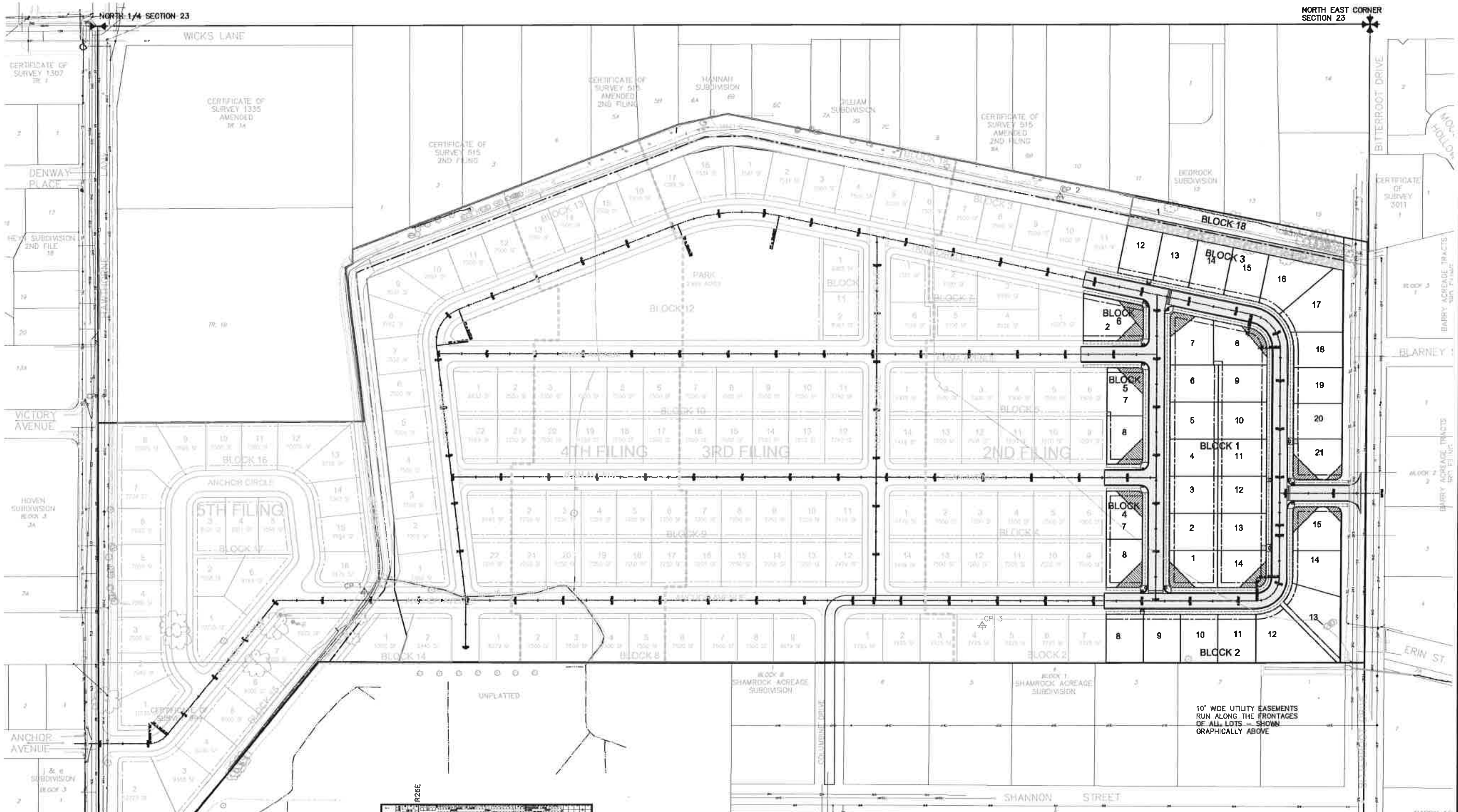
EMMA JEAN HEIGHTS SUBDIVISION - 1ST FILING

BEING AN UNPLATTED SITE AND ALL OF CERTIFICATE OF SURVEY 999
SAID TRACT OF LAND IS SITUATED IN THE NE 1/4 OF SECTION 23, T. 1 N., R. 26 E., P.M.M.,
CITY OF BILLINGS, YELLOWSTONE COUNTY, MONTANA

FOR: FELCO INDUSTRIES

BY: HKM ENGINEERING INC.
P.O. BOX 31318
BILLINGS, MT 59107

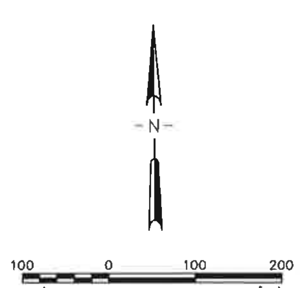
DATE: SEPTEMBER, 2007

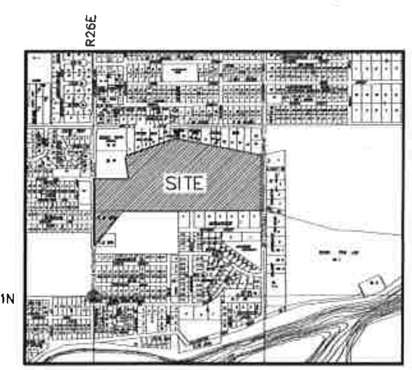


SITE DATA (TOTAL)

NUMBER OF LOTS:		197
MAXIMUM LOT AREA: * (BUILDABLE)		14,452 sq. ft.
MINIMUM LOT AREA:		7,100 sq. ft.
AREA OF PARKLAND:		2.87 acres
LINEAR FEET OF STREETS	ASPHALT W/ C&G	10,934 ln. ft.
	GRAVEL	938 ln. ft.
GROSS ACERAGE:		57.78 acres
NET ACREAGE:		39.71 acres
ZONING	EXISTING:	R-7000
	PROPOSED:	R-7000
LAND USE	EXISTING:	VACANT
	PROPOSED:	SINGLE FAMILY RESIDENTIAL

* LOTS 1-5, BLOCK 18 & LOT 9, BLOCK 15 ARE UNBUILDABLE.
(BBWA CANAL LATERAL)





VICINITY MAP

LOT/TR	OWNER	ADDRESS
COS 1335 AMENDED		
TR 1A	FIRST FREE WILL BAPTIST CHURCH	1545 HAWTHORNE LN
TR 1B	RONALD E & ALVIN B CARLSON	–
COS 515 AMENDED 2ND FILING		
1	ROBERT J CARRITSON	1246 WICKS LN
2	ODELTA A THOMSEN	1302 WICKS LN
3	CLAYTON J BONOGOFSKY	1314 WICKS LN
4	DEBRA J NORTHROP	1322 WICKS LN
5A	CARY GREENFIELD	1334 WICKS LN
5B	LESLIE N. ROHR	1340 WICKS LN
8	PAUL R WALLER	1430 WICKS LN
9A & 9B	MICHAEL K RIST	1444 WICKS LN
10	JON J WILSON	1508 WICKS LN
11	C&E SAUNDERS TRUST	1516 WICKS LN
13	JOHN A BREWER	1536 WICKS LN
14	JOHN A BREWER	–
15	JOHN A BREWER	1530 BITTERROOT DR
HANNAH SUBDIVISION		
6A	ROBERT H WIENS – TRUSTEE	1344 WICKS LN
6B	WILLIS C & EUNICE E EICHSTADT	1346 WICKS LN
6C	DALE L & THERESA A CHAHON	1410 WICKS LN

LOT/TR	OWNER	ADDRESS
GILLIAM SUBDIVISION		
7A	BIRDELL C LIEN	1418 WICKS LN
7B	TIMOTHY E PETERSON	1422 WICKS LN
7C	BROOKE LUND	1426 WICKS LN
BEDROCK SUBDIVISION		
1	CATHLEEN A PENCE & JAMES L PICKENS	TOWNHOUSES 1522, 1524, 1526, 1528 WICKS LN
COS 3011		
1	RICHARD E JUSTICE JR	1503 BITTERROOT DR
BARRY ACREAGE TRACTS		
BLOCK 3		
1 (W 1/2)	MARVIN L & MARJORIE E BROWN	1605 BLARNEY ST
1 (E 1/2)	NAN S LUCE	1615 BLARNEY ST
BLOCK 2		
1	LARRY & LINDA TRETTENBACH	1608 BLARNEY ST
2	STANLEY H & JUANITA H McINTIRE	1425 BITTERROOT DR
3	YOUTH DYNAMICS INC	1415 BITTERROOT DR

LOT/TR	OWNER	ADDRESS
BLOCK 2		
4	CAROL J STEVENSON & FRED W WALLIS	–
7 & 7A	ROY E CLAUSE	–
SHAMROCK ACREAGE SUBDIVISION		
BLOCK 1		
1	HERBERT E & MARY C GUNSCH	1539 SHANNON ST
2	BARBARA D NELSON	1525 SHANNON ST
3	DARLA J AGUILER TRUSTEE & ET AL	1511 SHANNON ST
4	DOUGLAS MORAN	1447 SHANNON ST
5	BARRY L & COLLEEN WRIGHT	1433 SHANNON ST
6	NEWELL & LAURIE B SCHUAB	1423 SHANNON ST
BLOCK 8		
1	GARY A & CONNIE M BECKER	1405 SHANNON ST
UNPLATTED		
	GARY A & CONNIE M BECKER	1405 SHANNON ST
COS 3169		
1	RANDY SHELTON	1305 HAWTHORNE LN

Wicks Ln
Caleb Ct
Emma Ave
Carson Way
Tanla Cir
Blarney St
Jean Ave
Anchor Ave
© 2016 Google
Google earth
1996
Imagery Date: 7/31/2015 45°49'31.09" N 108°26'57.95" W elev 3177 ft eye alt 5436 ft