

RATTLESNAKE VALLEY TRANSPORTATION SUMMIT STUDY



Prepared by the Rattlesnake Valley
Citizens Summit Group

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Addendum

Rattlesnake School Walk to School Routes study
(spearheaded by Caroline Lonski, Rattlesnake School parent)

References

- * 1995 Rattlesnake Valley Comprehensive Plan Amendment
- * City of Missoula, Public Works Department, Master Sidewalk Plan

INTRODUCTION

For over a year a group of citizens from Upper and Lower Rattlesnake has been discussing transportation infrastructure in the Rattlesnake Valley. In August 2009, City Council Members Dave Strohmaier and Jason Wiener initiated the Rattlesnake Valley Transportation Summit Group. This ad hoc group was asked to prioritize, in a fair and objective manner, areas of the Rattlesnake most in need of improvement.

Two full-scale summit meetings have been held, attended by citizens and various city and school district staff members. Many meetings of Summit citizen members followed, in an effort to decide how best to proceed in improving safety for bikers, pedestrians and vehicles on our roads. A list of guiding principles and an objective checklist of criteria were developed to aid in identifying needs and prioritizing. We arrived at sixteen potential project areas. For ease of referencing, we divided the valley into four quadrants, separated into east and west by Rattlesnake Creek flowing north to south, and Lolo Street crossing east to west. We then worked to prioritize infrastructure projects. The study was formally presented to a joint meeting of the Upper and Lower Rattlesnake Neighborhood Councils on February 27, 2011. (An MCAT DVD of the meeting is on file and/or available through MCAT.) A second joint neighborhood council meeting was held on April 21, 2011, where a summary of public comment on the study was presented (see Appendix J and Appendix K).

We are grateful for the help and support we received from City Council Members Dave Strohmaier and Jason Wiener; Public Works Director Steve King; Bicycle/Pedestrian Coordinator Phil Smith; Construction Project Manager Doug Harby; Senior Transportation Planner Ann Cundy; Traffic Services Coordinator Wayne Gravat; Neighborhood Liaison Erin Scott; and Director of Parks and Recreation Donna Gaukler. Information on safe routes to school was provided by Rattlesnake Elementary School Principal Jerry Seidensticker, other school personnel, and Rattlesnake Elementary School students. We talked with Scott Reed, Director of Operations and Maintenance for Missoula Schools, for possible solutions to the congestion and safety concerns at the soccer field complex on Lincoln Hills Drive. We also discussed the projects with Craig MacDonald, the owner of Rattlesnake Gardens. All of those people contributed time and information necessary for the completion of this document.

We believe the results of our work provide clear and usable guidelines for improving the transportation infrastructure in the Rattlesnake Valley.

MISSION STATEMENT

The mission of the Rattlesnake Valley Transportation Summit Group is to develop a plan to create safe and accessible transportation in the Rattlesnake Valley.

HISTORY AND EXISTING CONDITIONS

History

The Rattlesnake Valley has a long record of human activity. Prior to modern times, the Rattlesnake Valley was part of a migratory trail for Native Americans on the Road to the Buffalo. Settlement later included orchards, nurseries, ranching, logging and sawmills on the northern edge of the city of Missoula. The area's narrow, winding roads reflect those early days. (See 1995 Rattlesnake Valley Comprehensive Plan Amendment for more details.¹)

Existing Conditions

Over the years the Rattlesnake Valley has become home to Missoula residents of all ages and economic groups. In spite of recent population growth, many areas still retain the semi-rural infrastructure reminiscent of earlier days. Improvements to infrastructure such as wider roads, sidewalks, curbs, gutters and bike paths have not kept pace with increasing use.

Proximity to the University of Montana and the city make the Rattlesnake Valley a desirable location to live, and the area continues to grow and attract residents. University students, young families and retired homeowners call the valley home. A high percentage of University students living in the Rattlesnake commute to campus by bicycle or on foot.

The abundance of adjacent open space and recreation areas also attracts home buyers and renters. The Rattlesnake Valley is a gateway to the trailheads of the Lolo National Forest, Rattlesnake Recreation and Wilderness Areas, Mount Jumbo, Waterworks Hill and many other local trails. These destinations are major draws for Missoulians and visitors from nearby and distant locations.

The Rattlesnake has seen a recent explosion in the number of residents with children, as evidenced by the increase in Rattlesnake School students. Most elementary students are bussed or driven to school, partly due to unsafe or non-existent walkways or bike paths. On one designated "walk-to-school" route, children walk in the street along Rattlesnake Drive. The "walk-to-school" route on Gilbert south of the school has no sidewalks.

Two main corridors facilitate transportation northward up the valley on either side of Rattlesnake Creek: Greenough/Duncan Drive on the west of Rattlesnake Creek, and Van Buren/Rattlesnake Drive on the east. They are connected in the middle by Lolo Street, running east and west, forming an asphalt "H." These streets accommodate the majority of the vehicle, bicycle and pedestrian traffic. Our study has focused primarily on these major corridors and other significant connectors.

For ease of reference, we have divided the area into four quadrants. The geographically significant Rattlesnake Creek forms a north-south line, dividing the valley into eastern and western portions. Lolo Street, running east-west in the middle of the valley, forms a logical line separating the northern and southern portions. Our analysis thus

¹ 1995 Rattlesnake Valley Comprehensive Plan Amendment,
<ftp://www.co.missoula.mt.us/opgftp/Documents/CompPlans/Rattlesnake/RattlesnakeLP.htm>.

focuses on four quadrants, hereafter referred to as the Southwest and Northwest Quadrants and the Southeast and Northeast Quadrants.

WESTERN QUADRANTS (West of Rattlesnake Creek)

Southwest Quadrant

Greenough Drive runs north of the railroad tracks and under I-90 into the Rattlesnake Valley. The southernmost portion of Greenough Drive was recently renovated with sidewalks, curbs, gutters, bike lanes and a repaved street under the auspices of the Rattlesnake Gateway Project. This section connects the Heart of Missoula neighborhood with the Rattlesnake area and Waterworks Hill trailhead. Continuing north on Greenough past Greenough Court Apartments, the roadway is characterized by steep drop-offs, narrow shoulders and lack of sidewalks, curbs, or gutters, which is problematic for pedestrians and bicyclists. Beginning at Traynor Drive, small side streets enter onto Greenough Drive. There are no sidewalks, curbs or gutters here, with a small exception at the southeast corner of Lolo and Greenough.

Lolo Street marks the north end of the Southwest Quadrant and the south end of the Northwest Quadrant. East from the Lolo/Greenough junction to Rattlesnake Creek, Lolo Street is narrow, has no sidewalks, curbs or gutters west of Rattlesnake Creek, and has considerable vehicle, bicycle and pedestrian traffic. Lolo is the only mid-valley street connecting the east and west sides of the Rattlesnake. Efforts are underway to secure right-of-way to provide for necessary and appropriate improvements, especially on the south side. Curbs and sidewalks west of the creek are scheduled for installation during 2011.

Northwest Quadrant

North of Lolo Street, Greenough Drive becomes Duncan Drive. The stretch of Duncan Drive south of Mountain View Drive is characterized by many adjacent residences and side streets. There are no sidewalks, curbs, gutters or bike lanes. Parked vehicles often line the street. The road is heavily used by cyclists, runners and pedestrians. The trailhead just west of Mountain View Drive leads to Waterworks Hill. Heading east on Mountain View Drive leads to a pedestrian bridge that crosses Rattlesnake Creek to Pineview Park and Rattlesnake Elementary School. Also, a trail leads north from here along the west side of Rattlesnake Creek.

North of Mountain View Drive, Duncan Drive continues into a semi-rural setting, past sports fields and the PEAS Farm. Beyond the PEAS Farm, another trailhead leads through open space to the high ridge north of Waterworks Hill. Duncan Drive terminates at the trailhead to the Rattlesnake Recreation and Wilderness Area. These trailheads draw recreationists from all over the city and region. Duncan Drive itself has narrow shoulders and no bike lanes, although it is designated a bicycle route.

EASTERN QUADRANTS (East of Rattlesnake Creek)

Southeast Quadrant

Van Buren serves the lower portion of the eastern Rattlesnake Valley, which is the most heavily populated area of the Rattlesnake. In 2008 the traffic count for Van Buren Street was approximately 15,000 vehicles per day. This area is in close proximity to I-90, the University of Montana and the Eastgate Shopping Center. The Missoula International School (pre-school through 8th grade) is located on Harrison Street, one block east of Van Buren. The Van Buren area is a popular residential choice of university students, which contributes to the high number of cyclists and pedestrians along this segment. Many residents in this area are renters.

Several accidents and one fatality have occurred along Van Buren. On-ramps and off-ramps for I-90 at Van Buren and the nearby Broadway intersection create a complicated and busy mingling of traffic streams. Cyclists, pedestrians, buses and other vehicles change lanes, merge and turn in the shadow of concrete pillars under I-90 and Montana Rail Link rights-of-way. These support columns block line of sight. From I-90 north, Van Buren is characterized by intermittent dysfunctional sidewalks in disrepair, mostly without curbs or gutters and often iced or earthed over. Parked vehicles or boats frequently obstruct the sidewalks. Drainage ditches exacerbate this situation. Improvements would require re-engineering of the street, which is higher than the sidewalk in many areas. Van Buren turns into Rattlesnake Drive just past Missoula Avenue, a complicated junction.

From Missoula Avenue north to Lolo Street the problems are less severe, with wider shoulders and less on-street parking.

Lolo Street is part of all four quadrants, connecting east and west. The eastern half of Lolo Street (east of the Rattlesnake Creek bridge) has recently undergone major improvements through the addition of sidewalks, curbs and gutters in all but a small portion near the bridge. The bridge itself has a walkway on both sides, but the northern walkway does not connect to sidewalks on either end.

Northeast Quadrant

Rattlesnake Drive north of Lolo Street continues the eastern north-south corridor begun with Van Buren Street. In addition to adjacent residences, this segment has many destination magnets, including Rattlesnake Gardens (a popular restaurant and convenience store), Clark Fork School (pre-school through 5th grade), Rattlesnake Elementary School, a health and rehabilitation home, and Messiah Lutheran Church. The speed limit was recently lowered from 35 to 30 mph. However, intermittent sidewalks, inadequate shoulders, frequent turns onto and off the road, proximity to schools, barrow pit ditches and heavy bike/pedestrian traffic all contribute to the potential for accidents. Much appreciated recent improvements have been made to sidewalks close to the school. The bulbouts at crosswalks are a major source of concern expressed by some local citizens.

Opposite the Brookside development, Lower Lincoln Hills Drive runs east off Rattlesnake Drive past the Hellgate High School soccer field complex. During games or tournaments this segment is often heavily congested with people, cars and buses. Vehicles are frequently parked on the roadway, despite "no parking" signs. This secondary connector

street then continues up a steep hill into the Lincoln Hills development. This entire segment, which has a steep grade, steep drop-offs and narrow shoulders on curves, has no sidewalk or bike/ped paths. Bikers and pedestrians frequently use this roadway which terminates at a trailhead leading to Mount Jumbo saddle.

From the intersection at Lincoln Hills Drive, Rattlesnake Drive continues north to Creek Crossing with wide shoulders but no sidewalks, curbs or gutters on the east side of the street. There are some sidewalks, curbs and gutters on the west side of the street, but these are not complete to Creek Crossing. The Lincolnwood subdivision is directly north of here. At Creek Crossing, Rattlesnake Drive swings east past Messiah Lutheran Church and then north past the Ten Spoon Winery on the west and the Cornerstone housing development to the east. This section leads to multiple trailheads, including access to the Rattlesnake National Recreation Area and Wilderness Area. This is a destination for bicyclists, hikers, runners and horseback riders (who frequently arrive by truck and trailer). Horseback riders who wish to access the equine trailhead via any trail system south of Madera Drive must ride in on vehicle lanes on Rattlesnake Drive. The city limits on the east side of Rattlesnake Drive ends at Tamarack Street, but on the west continues .7 mile past a cattle ranch. North of Tamarack on the east side several houses outside city limits are accessed only by Rattlesnake Drive. Along this roadway there are no bike/ped pathways.

The roadway north of the city limits and into the county is narrow, winding and confined by large trees and shrubbery. Line of sight is severely hampered.

Conclusion

After careful investigation we find that the lack of adequate transportation infrastructure in the Rattlesnake Valley creates safety hazards for both the valley's residents and visitors who access its trails and use its roads. We believe commitment of time and money to improve transportation infrastructure and safety in the Rattlesnake Valley is in the best interests of residents and visitors alike.

PRINCIPLES THAT GUIDE OUR SELECTION OF PROJECTS, FOCUS AREAS AND POSSIBLE SOLUTIONS

1. Each geographic area studied has different needs and circumstances. All listed projects are important.
2. Do the most good for the most people with these projects.
3. Attend to the primary corridors of Van Buren/Rattlesnake Drive on the east side and Greenough/Duncan on the west side—north to the recreation areas, schools, Rattlesnake Gardens, PEAS Farm, etc., and south to the city, freeway, and University; they carry the most car, bike, and pedestrian traffic in the Rattlesnake Valley.
4. Look to the needs of the most vulnerable users: children, parents with children (on bikes, with strollers, etc.), the elderly, people with disabilities and limitations, etc.
5. Cumulative effects (for example, steep slopes, no shoulders or sidewalks, most vehicle/bike/ped use, poor line of sight, etc., all in one section) increase the risk to all who use the road or section.
6. Accidents should receive serious consideration, with close attention to number and severity.
7. The denser the population along a road section, the more use it can be expected to have, meaning more people will benefit from remediation.
8. Connectivity between activity areas and neighborhoods is important.
9. Deficient sidewalks (identified by cars parked on them; mud, ice and water accumulations; lack of curbs; irregular surface; etc.) can be worse than no sidewalks, creating a false sense of security and inherent risk.
10. Treatment must be appropriate to the site. Some rural roads may need wider shoulders and rumble strips that could be plowed rather than sidewalks which would require someone hand shoveling in order to stay open during the winter.
11. Hillside roads contribute to increased speed and often have curves, creating line of sight difficulties that merit serious attention.
12. Benefits should consider motorized as well as active transportation modes, recognizing that drivers trying to avoid bikes and pedestrians can cause crashes. Collisions of bikes and pedestrians with vehicles can cause both physical and psychological damage to all parties.
13. Where possible, try to mitigate conflicts between motor vehicles and wildlife.

14. To the greatest extent possible, road design should conform to "Principles for Arterials and Collectors."

PRINCIPLES FOR COLLECTOR STREET DESIGN

Traffic planners and engineers over the last 80 years have devised a hierarchy of streets: local streets (also known as neighborhood streets) feed into collector streets which in turn feed into arterial streets. Often, local streets feed directly onto functional or neighborhood collectors, which is the case for most of the Rattlesnake Valley.

Collectors generally carry more traffic than local streets, have higher speeds, serve more commercial and mixed development and provide for more direct connections between residences and services. As such, there tends to be a much greater need for specific walking and bicycling facilities on collectors.

Collectors generally have good curbs, sidewalks, and bike lanes. Where space allows, boulevards can be included between the sidewalk and the curb. These principles are recognized in Missoula planning documents, national best practices, and are generally supported by citizens in various surveys about values and desires. The major collectors in the Rattlesnake Valley are Van Buren, Rattlesnake, Greenough, Duncan and Lolo streets.

Sidewalks

Sidewalks provide for safe movement of pedestrians and in some cases are suitable for young or less experienced cyclists. A good sidewalk system is maintained, has little cracking or changes in elevation (i.e., trip hazards), and are wide enough for two people to walk side by side (about 5'6" minimum width).

Curbs

Curbs help to separate pedestrians from motorized traffic, channel storm water and prolong the pavement edge. In some cases curbs are not needed, such as less urban areas that see little motorized traffic and/or have less population. Without a curb, there needs to be careful attention paid to storm water management. Permeable pavers—as part of an overall sustainable street design strategy—can be an attractive alternative to curbs.

Boulevards

Boulevards help separate pedestrians from motorized traffic, provide a place for landscaping and natural green spaces, provide for snow storage and help with storm water management. Sometimes a boulevard can be a substitute for a curb, especially if vegetation, such as trees, provides the desired buffer between walkers and cars. A careful balance needs to be struck between the desire for a boulevard and the desire to minimize public costs for right-of-way.

Bike lanes

Bike lanes provide dedicated travel space for people riding bicycles. In general, a bike lane is essential for arterials and desirable for collectors. A good bike lane is continuous, maintained on a regular basis, has a minimum width of 5' and adequate clearance from any parked cars (such as a 2'-3' buffer space). In some case, such as Greenough Drive, a bike lane can be a minimum of 4' if there are no curbs or parked cars and the motor vehicle volumes and speeds are relatively low (such as less than 4,000 cars a day and a 25 mph speed limit). Bike lanes adjacent to a parking lane need special attention in order to avoid "dooring" hazards. A 6' minimum width is often desirable for a bike lane that is adjacent to a parking lane.

Local streets

While local/neighborhood streets generally benefit from curbs, sidewalks and boulevards, in some cases on low volume traffic streets, there may be no need for separate walking facilities, as people can comfortably walk in the street. In these cases, some form of traffic calming may be a substitute for a sidewalk. In general, there is no need for a bike lane on a local street as motor vehicle volumes and speeds tend to be low. In the Rattlesnake Valley, an exception would be Missoula Avenue, which is a one-way, local street for motor vehicles; this street has a combined bike lane and walkway on both sides of the street, and has no curbs. General feedback is that Missoula Avenue is a good street for all modes of transportation.

Freeway exits and entrances intersecting Van Buren Drive

The Rattlesnake Valley intersects the on- and off-ramps for Interstate 90 at the southern end of the Valley near Broadway Street. Motor vehicles are coming off I-90 at higher rates of speed (up to 75 mph) and are then interacting with more local traffic, including pedestrians and bicyclists. A national trend with a good safety record is the use of modern roundabouts for the intersections instead of traffic signals, including intersections of urban streets with Interstate ramps.

A modern roundabout is much different than the older style traffic rotary, which favored multiple lanes, had higher speeds and lacked facilities for active transportation modes. Modern roundabouts have shown much greater safety for all modes of transportation than either traffic signals or rotaries. In addition, the greatest safety and accessibility has been found with modern, single-lane roundabouts compared to modern multi-lane roundabouts.

The Rattlesnake Transportation Plan reflects a strong interest in modern, single-lane roundabouts in any future transportation improvement projects for the intersection of Van Buren and I-90. In addition, any modern single-lane roundabout should be designed to conform to the most current best practice for safety and accessibility of pedestrians and cyclists.

CRITERIA CHECKLIST FOR ROAD SECTIONS (NUMERICAL RATING)

This checklist is designed so that the higher the number, the higher the degree or probability of risk. The guiding principles (e.g., doing the most good for the most people, noting cumulative effects, examining the current roadways and sidewalks, etc.) are meant to be reflected here. This checklist can be used to determine the order in which projects of High Priority will be completed. Use the rating system below to answer to the questions.

Identify the segment being studied: _____

Rating system - In answer to the questions below, select the number that best describes the project area.

4 = Yes, definitely, a serious problem in one or more locations.

2 = Somewhat, seldom, or present but not a serious problem.

0 = No, not a problem or concern

ROAD CHARACTERISTICS: (25% of total)

- _____ Is the road dangerous for bike/peds and vehicles to travel together?
- _____ Is the road rough or does it have an irregular surface?
- _____ Is the line-of-sight seriously blocked by parked cars, curves or buildings?
- _____ Are there many magnet destinations along or near the roadway such as commercial enterprises, schools, parks, etc.?
- _____ How heavy is the vehicle traffic? (Heavy = 4, Moderate = 2 and Low = 0)
- _____ Are one or more intersections ambiguous, dangerous or difficult to see?

SIDEWALKS OR PEDESTRIAN/BIKE SPACE: (25% of total)

- _____ Does the road lack sidewalks or pathways needed for safety?
- _____ Are sidewalks available, but lacking curbs?
- _____ Are the sidewalks chipping apart, irregular, collecting mud/water/ice?
- _____ Do cars park on the sidewalks or into the road, crowding out bike/ped?
- _____ Does the road lack flat shoulders or space for bike/peds to get out of the path of vehicles?
- _____ Are ADA (for the disabled) ramps missing at crossings and intersections?
- _____ Are speed-mitigating bumpouts creating hazards? (Consider a raised crosswalk?)

APPROPRIATE SPEED, SIGNAGE OR TRAFFIC CALMING DEVICES: (10% of total)

- _____ Does the area need signs warning of school children crossing or other hazards?
- _____ Do vehicles pick up speed because of grade?
- _____ Is the speed appropriate for the usage?
- _____ Would traffic-calming devices improve safety in the area? Explain.

_____ Is there frequent use by the young, elderly, parents with children or other vulnerable people?

_____ Does the segment pass busy locations requiring egress and entrance or picking up and dropping off passengers?

_____ Are there many deer or other large mammal crossings and/or animals killed?

_____ Is there a record of accidents over the last 10 years?
 _____ How many? (Two or more = 4, 1 = 2, 0 = 0)
 _____ Injuries? _____
 (A fatality should be given a 6.)

Locations: _____

_____ Eight or more dwelling units per acre (4)
 _____ Three to seven dwelling units per acre (2)
 _____ Zero to two dwelling units per acre (0)

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NAMING PRIORITIES BY QUADRANT – GENERAL GUIDELINES

There are three levels of priority: Urgent (should receive attention now), High priority (next in line) and Medium priority. All of the projects are considered important, but work should progress systematically: Urgent, then High priority, then Medium priority. The Rattlesnake Valley has been divided into its four quadrants by Lolo Street for the east-west line and Rattlesnake Creek for the north-south line. Projects will be listed by their quadrant (SE, NE, SW, or NW) followed by a number to identify it within that quadrant. The number does not indicate priority order.

URGENT = 1ST PRIORITY – to be completed first. Lower Van Buren has been identified as the area to start with, but work can progress in two or all three (completion of Lolo Street, and Upper Rattlesnake from Lolo to Rattlesnake Elem.) of these areas simultaneously.

HIGH PRIORITY = Next level. The order in which these will be completed can be determined by using the Criteria Checklist.

MEDIUM PRIORITY= These areas will receive attention once the High Priority projects have been completed, and can also be ranked by using the criteria checklist.

FLEXIBILITY FACTORS:

*Complete **Urgent** projects first; **High Priority** projects second; and **Medium Priority** last, unless **Flexibility Factors** apply.*

1. If funds become available (through a special grant, donations or organized neighborhood effort) that cannot be used on the next project in line but can be used on another project, that work can proceed.
2. If conditions change (e.g., increasing population or development, risk, road/sidewalk conditions or use) the priority level of the project could change.
3. In some cases, it may be appropriate to work on one side of the road in two quadrants simultaneously to allow the other side of the road to stay open to traffic. Projects may be completed a few blocks or segments at a time.
4. When possible, if an area in line for improvements needs crosswalks, signs or slower speeds to make it safe until the improvements can be made, the appropriate steps should be taken for safety. (Missoula Public Works Department and/or Montana Department of Transportation decision.)

PRIORITIES BY QUADRANT

As a group we were able to determine that there are three areas that are Urgent Priorities and need attention now. One of those is on Lolo Street and is included in the Northwest and Southwest quadrants. When those three urgent priorities are completed, the High Priorities for all four quadrants should be evaluated using the Objective Checklist to help determine which work should be started next.

NORTHWEST (N.W.) QUADRANT Urgent Priority N.W. 1 Appropriate non-motorized infrastructure on the incomplete sections of Lolo Street. (Same area as S.W. 1) High Priority N.W. 2 Appropriate non-motorized infrastructure north on Duncan Drive from Lolo Street to Mountain View Drive. Medium Priority N.W. 3 Appropriate non-motorized infrastructure from pedestrian bridge on Mountain View to Duncan Drive for connectivity. N.W. 4 Appropriate non-motorized infrastructure north on North Duncan Drive from Mountain View Drive to Castle Pines. SOUTHWEST (S.W.) QUADRANT Urgent Priority S.W. 1 Appropriate non-motorized infrastructure on the incomplete sections of Lolo Street High Priority S.W. 2 Appropriate non-motorized infrastructure from Lolo Street south to Alvina. Medium Priority S.W. 3 Appropriate non-motorized infrastructure from Alvina south on Greenough to connection with completed sidewalks.	NORTHEAST (N.E.) QUADRANT Urgent Priority N.E. 1 Upper Rattlesnake Drive from Lolo to Rattlesnake Elementary School High Priority N.E. 2 Appropriate non-motorized infrastructure from Rattlesnake Elementary School north to Creek Crossing N.E. 3 Appropriate non-motorized infrastructure on Rattlesnake Drive from Creek Crossing to Tamarack N.E. 4 Appropriate non-motorized infrastructure on Lower Lincoln Hills Drive from Rattlesnake Drive to Applehouse Lane N.E. 5 Appropriate non-motorized infrastructure along Lincoln Hills Drive from Applehouse Lane to Contour Lane N.E. 6 Appropriate non-motorized infrastructure along east side of soccer fields connecting all neighborhoods above Rattlesnake Court with the fields and Lincoln Hills Drive N.E. 7 Appropriate non-motorized infrastructure, from Gilbert Avenue and Lolo to Rattlesnake Elementary School Medium Priority N.E. 8 Appropriate non-motorized infrastructure on Rattlesnake Drive from Tamarack north to county line. SOUTHEAST (S.E.) QUADRANT Urgent Priority S.E. 1 Appropriate non-motorized infrastructure on Lower Van Buren Drive, Poplar to 1800 Van Buren High Priority – None Medium Priority S.E. 2. Appropriate non-motorized infrastructure from 1800 Van Buren/Rattlesnake Drive to Wylie Street
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Priorities by Quadrant

Northwest Quadrant



LEGEND

- CITY ROADS
 — COUNTY ROADS
 — PRIVATE ROADS

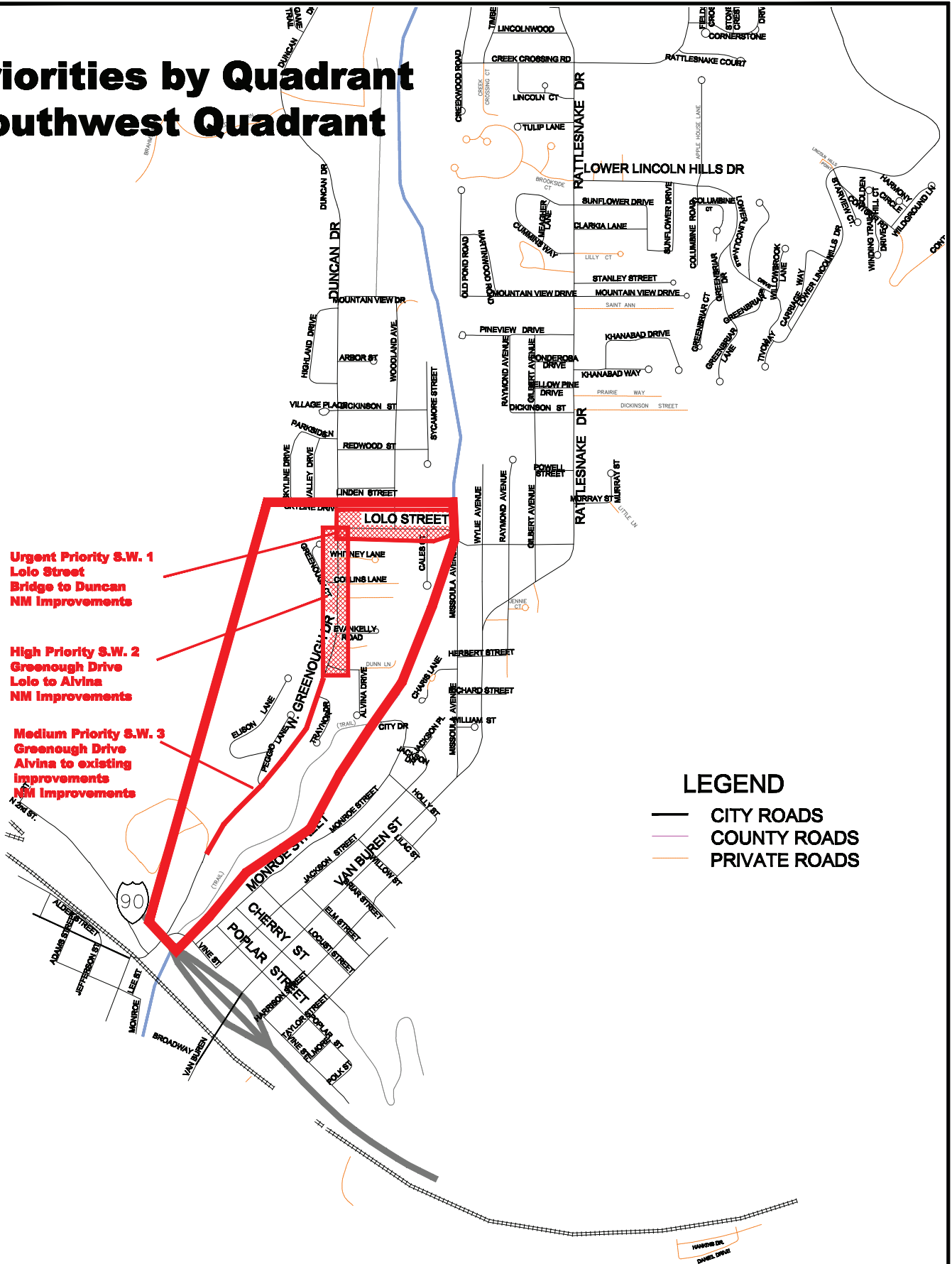
Priorities by Quadrant

Southwest Quadrant

Urgent Priority S.W. 1
Lolo Street
Bridge to Duncan
NM Improvements

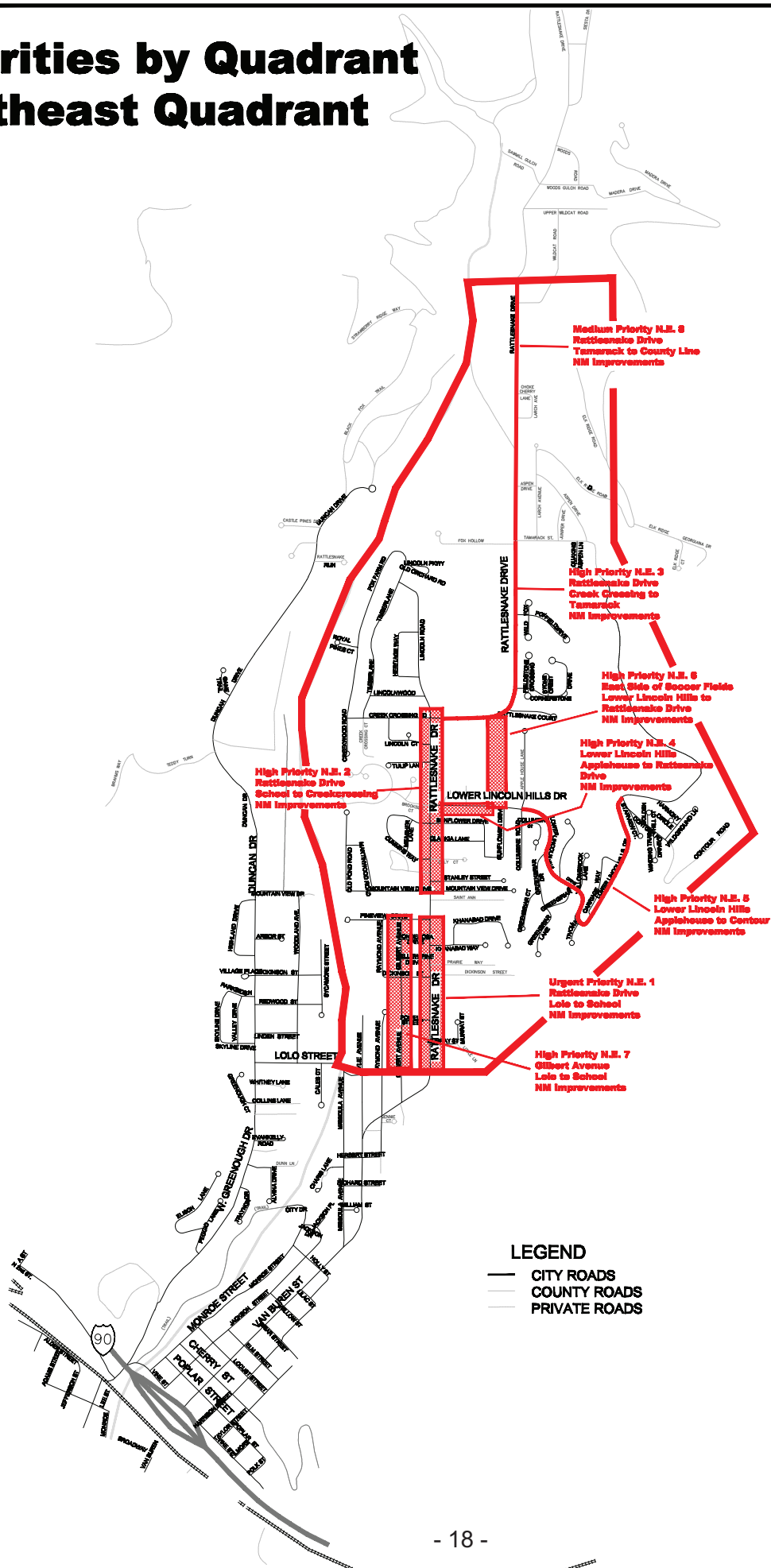
High Priority S.W. 2
Greenough Drive
Lolo to Alvina
NM Improvements

Medium Priority S.W. 3
Greenough Drive
Alvina to existing
improvements
NM Improvements



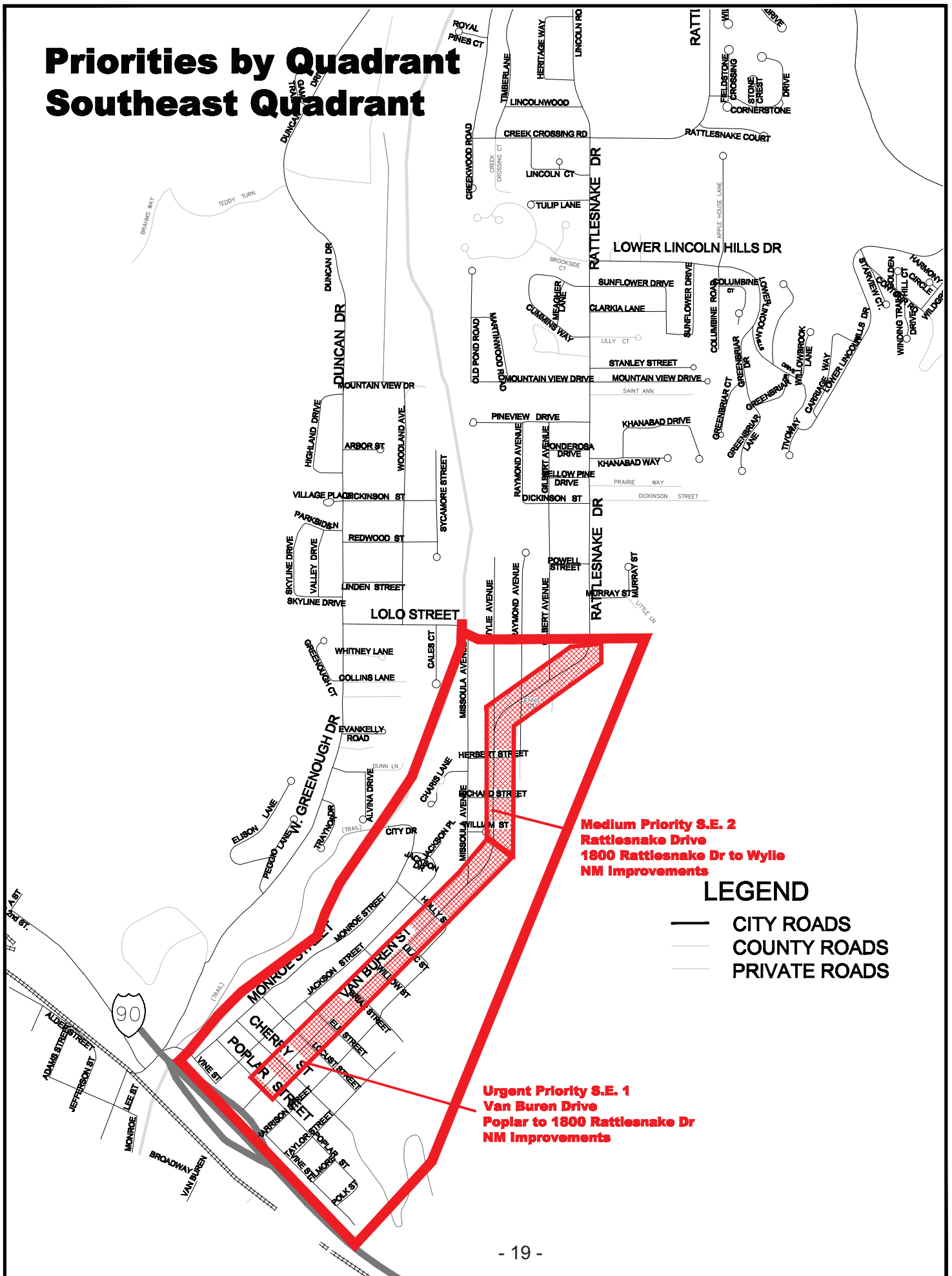
Priorities by Quadrant

Northeast Quadrant



Priorities by Quadrant

Southeast Quadrant



PROJECT FINANCING

1. Sidewalks, Curbs and Gutters

How Sidewalks are Typically Installed

By action of property owner or developer: Sidewalk, curb and gutter installation in the City of Missoula occurs under various ordinances and regulations. Whether they are built by a contractor hired by the City or by a contractor hired by a private property owner, sidewalks are installed according to standards administered by the City's Public Works Department. Following are the circumstances under which the City requires installation of sidewalks:

- *New multi-family residential, commercial or industrial development:* Sidewalks are required as part of the building permit.
- *Subdivisions:* Sidewalks are required for streets within the subdivision and for streets adjacent to the property being subdivided.
- *New single-family house:* Sidewalks are required as part of the building permit but only if the sidewalk either:
 1. Completes a gap between two existing sidewalks or
 2. Extends an existing pattern of curbs and sidewalks established on the street.
- *Remodeling of an existing single-family house:* Sidewalks are required as part of the building permit but only if the vehicular (driveway) access is changed.
- *Conversion of a single-family dwelling into a multifamily dwelling:* Sidewalks are required as part of the building permit (The sidewalk, curb and all other right-of-way improvements are required.)

Ordered in by City: City ordinances and State laws provide a public process for assessing street improvement costs to adjacent property owners. The City Council sometimes "orders in" (i.e., requires installation of) curbs, gutters and sidewalks on specific properties that lack such improvements. The City installs the improvements and assesses the cost to the property owner, or the owner arranges to have the work done to City specifications. The City typically orders in sidewalks in areas that are already largely developed but where the streets are not fully improved with sidewalks or curbs and gutters adjacent to all properties.

By Special Improvement District (SID): City ordinances and State laws provide a public process for establishment of Special Improvement Districts (SIDs) by the City Council. SIDs are created to construct sewers, streets, sidewalks, parks and similar public improvements. After the City calculates the cost of the proposed improvement, property owners in a SID are assessed a portion of the cost, according to a formula based on such factors as the area or street front footage of the property. In most cases, SIDs are not established for sidewalks. Instead, individual property owners are assessed when the City orders in sidewalks in an area.

When sidewalks are ordered in by the City, actual construction may occur in one of two ways. First, the property owner may choose to hire his or her own contractor to install the

improvements to City standards. Second, the property owner may choose for the City to hire a contractor to do the work, usually as one of a series of sidewalk installations at several different locations. As a general rule, property owner costs tend to be lower when the City hires the contractor since contractors are bidding on multiple projects instead of just one project.

Financial Assistance for Assessment Costs

The City recognizes that improvement projects may have a significant financial burden on property owners. Therefore the City offers three payment options to cover the cost of sidewalk projects: cash payments; City financing; and deferred payment.

1. Cash Payment

Property owners may pay cash for sidewalk improvements. Owners who choose to pay cash will receive an invoice from the City upon completion of the work adjacent to their property and will have 30 days to make their payment.

2. City Financing

The City is able to make financing available for sidewalk improvement work. The City pays the contractor then arranges to have the costs plus interest and finance charges added to the property owner's semiannual tax bill. A property owner may choose to have the cost spread out over eight years (or 12 years if the cost exceeds \$3,000, or 20 years if the cost exceeds \$5,000).

3. Deferred Payment

The City created the Sewer Connection Deferred Loan program in 1989 to help finance sewer connections for property owners who meet certain criteria. The program is also available for sidewalk projects. The Deferred Payment Loan option delays payment for the work until the ownership of the property changes. The applicant must reside on the property and meet minimum age and income requirements. Applications are available at the City of Missoula Engineering Offices. No payment is due until all work has been completed.

II. Streets and Trails

Several opportunities exist for funding street and/or trail projects within the City, including City-wide road district assessments, special improvement districts, federal or state transportation funds, and, to a limited degree, the City of Missoula's general fund.

City-wide Road District

This program, established in September 2010, encompasses a City-wide road district designed to maintain the current level of service as provided to all city residents. City-wide assessments may be established for the purpose of funding and/or financing costs associated with providing services including but not limited to: (1) maintenance, repair, replacement, upkeep, installation, improvement, operational enhancement, construction, reconstruction, acquisition of right-of-way and/or (2) implementation of measures required to maintain public health and safety or meet legal or regulatory requirements, and/or (3) purchasing, replacing, and/or maintaining equipment, tools or vehicles used to carry out the functions described herein, and/or (4) any other functions and/or labor, supplies, and/or materials necessary for management and maintenance of City-owned facilities, lands and

equipments under the responsibility and care of the City of Missoula Public Works Department's Street, Engineering, and Vehicle Maintenance divisions. These include but are not limited to: streets, alleys, driveways, alley approaches, sidewalks, curbs and gutters, medians, boulevards, lighting, parking lots, support facilities, public amenities, storm water facilities, traffic control inclusive of traffic signals, signs, and pavement markings, and other public facilities located in the public right-of-way and/or within public easements; and providing for other matters properly relating thereto.

The Street Maintenance Division has the responsibility for maintaining the convenience and insuring the safety of the public streets, alleys, and public rights-of-way for use by the public. The Division provides for this responsibility by implementing programs for street cleaning; leaf pickup and removal; street patching and major maintenance; snow and ice control; storm water drainage facility maintenance; alley grading; reconstruction of streets; maintenance of state routes within the City; major street construction projects; and other projects for other departments and the community in general.

Special Improvement District (SID)

Similar to sidewalks, curbs, and gutters, City ordinances and State laws provide a public process for establishment of SIDs for street or other public improvements. See above discussion for more details on this option.

Federal or State Transportation Funds

Description: Through its Metropolitan Planning Organization (MPO), the Missoula urban area receives Federal funding for highway and transit improvements. The reconstruction of Reserve Street in the 1990s and the reconstruction of Russell Street currently in the environmental review process are examples of projects that rely heavily on Federal funding. Federal Congestion Mitigation & Air Quality (CMAQ) funds have helped finance projects such as the Brooks/South/Russell intersection reconstruction, signal improvements and construction of portions of the City's Primary Sidewalk Network.

Advantages: Federal funding can appear attractive because it reduces the potential for individual assessments. The local government generally pays a "match" of 13-20 percent of the total project cost, reducing local taxes.

Limitations: Federal transportation funding is generally used for projects that are more regional in scale than most improvements needed at the neighborhood level. Due to extensive environmental assessment requirements and other regulations, the City has found that smaller projects are often easier and less expensive to implement if they are paid for with local funds.

SUMMARY

Much of the Rattlesnake Valley retains aspects of the narrow country roads of earlier years. As the population has grown, the road use has seen a manifold increase in use by bikers, foot traffic and vehicles. There are now multiple side entrances, frequent parking on the margins and many public destinations along the main roads. Clearly most segments of Rattlesnake roads have large gaps in sidewalks and bike/pedestrian pathways. These gaps in infrastructure create an inconsistent roadway which leads to unpredictable behavior on the part of bikers, walkers and drivers. The potential for frequent surprises contributes to risky interactions between users of all groups and all ages.

In Missoula as a whole we have fostered the belief that biking and walking to destinations is good for the environment and good for our health. People have taken this to heart, and many of those people live in or visit the Rattlesnake Valley. After studying conditions here, we feel a sincere need to make this a safer place for them.

In our attempts to prioritize within the four quadrants, we believe flexibility factors can allow work to proceed concurrently in different portions of the Rattlesnake as opportunity and urgent needs arise. The Guiding Principles and Criteria Checklist should help identify the order of work after the Urgent Priorities have been dealt with. In this way, we hope to make the Rattlesnake Valley a safer place for all who pass through it.

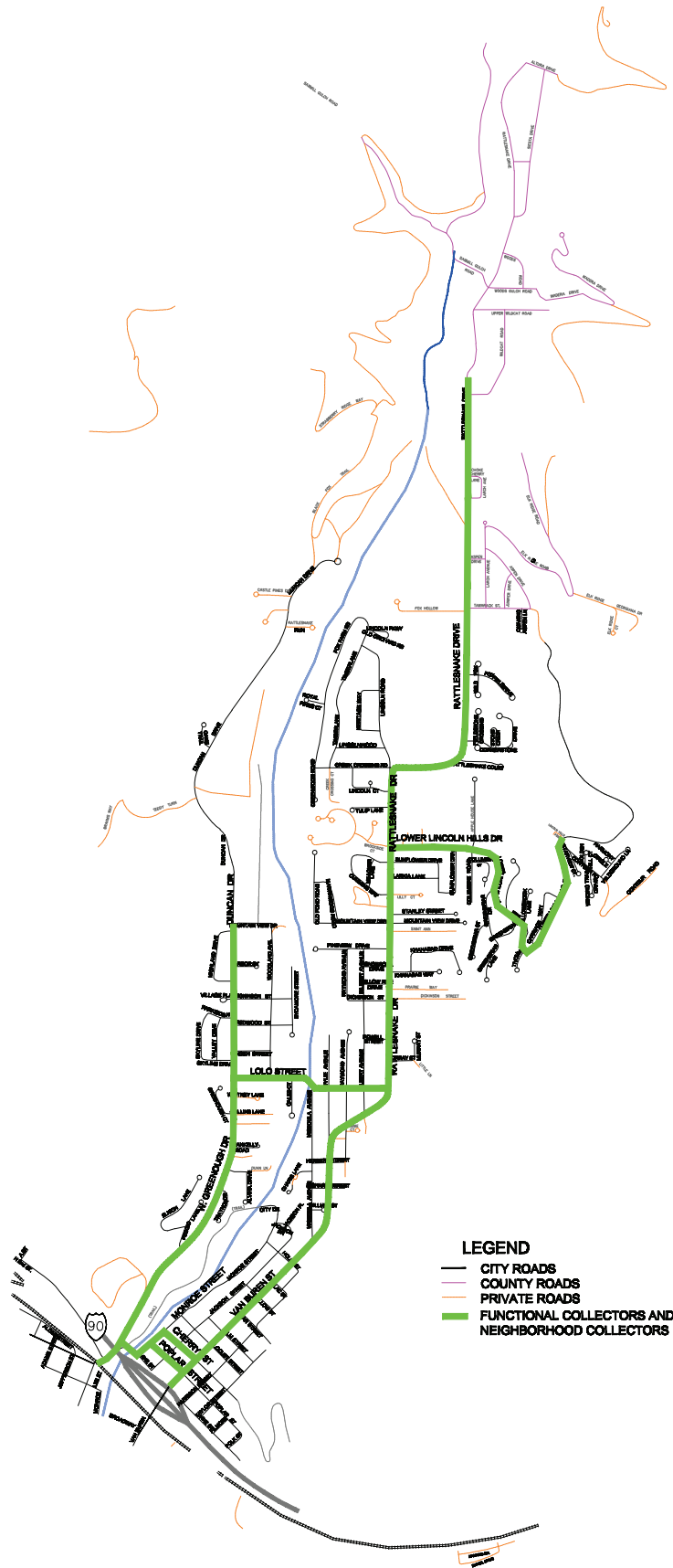
Citizen Participants:

Harold Hoem
Caroline Lonski
Carol Elsen
Don Sims
Jan Hoem
Catherine Carey
Bob Giordano
Mary Louise Zapp-Knapp
Andrea Stevens
Bridget Kilroy

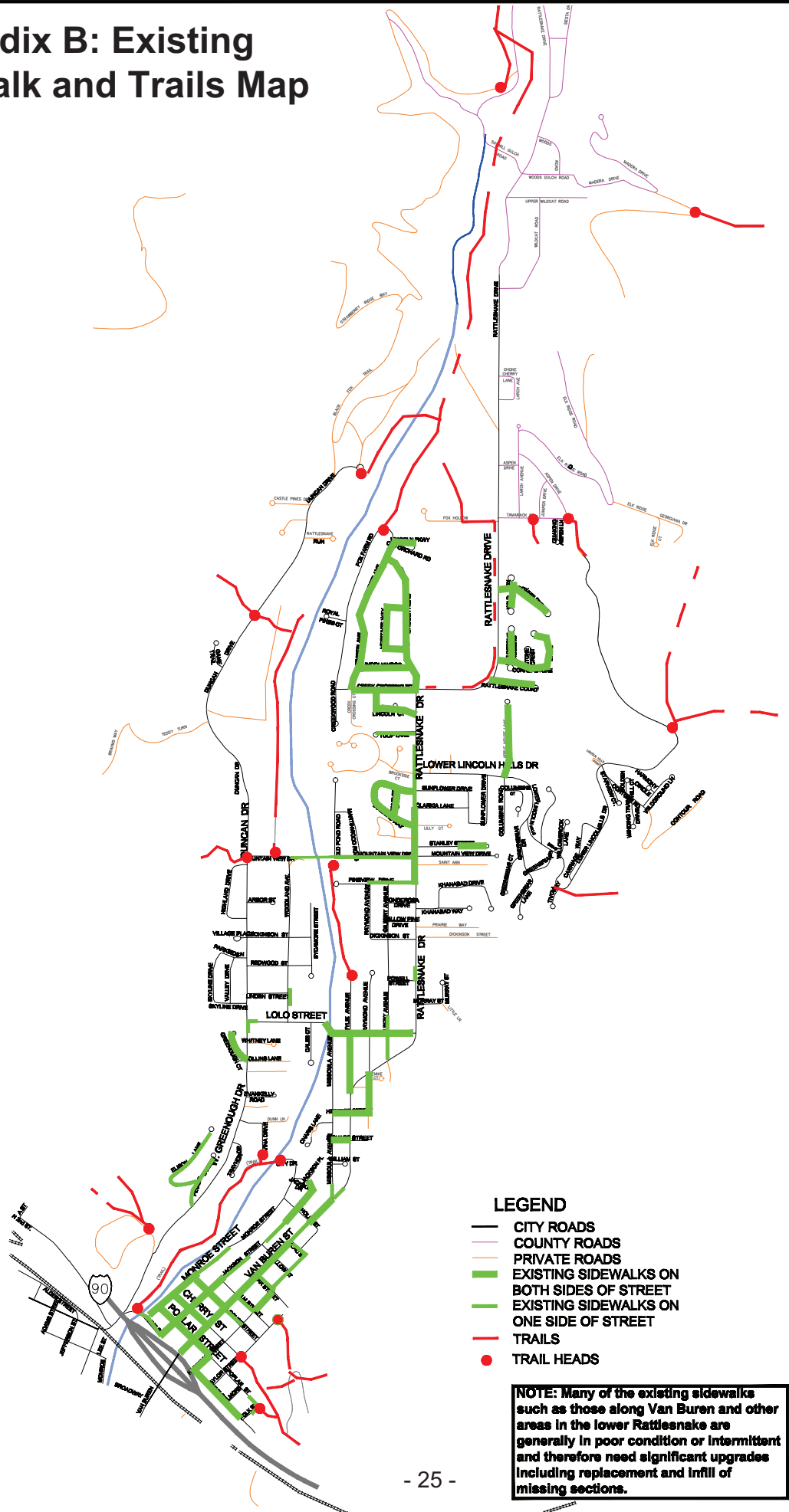
Missoula City Council Participants:

Dave Strohmaier
Jason Wiener

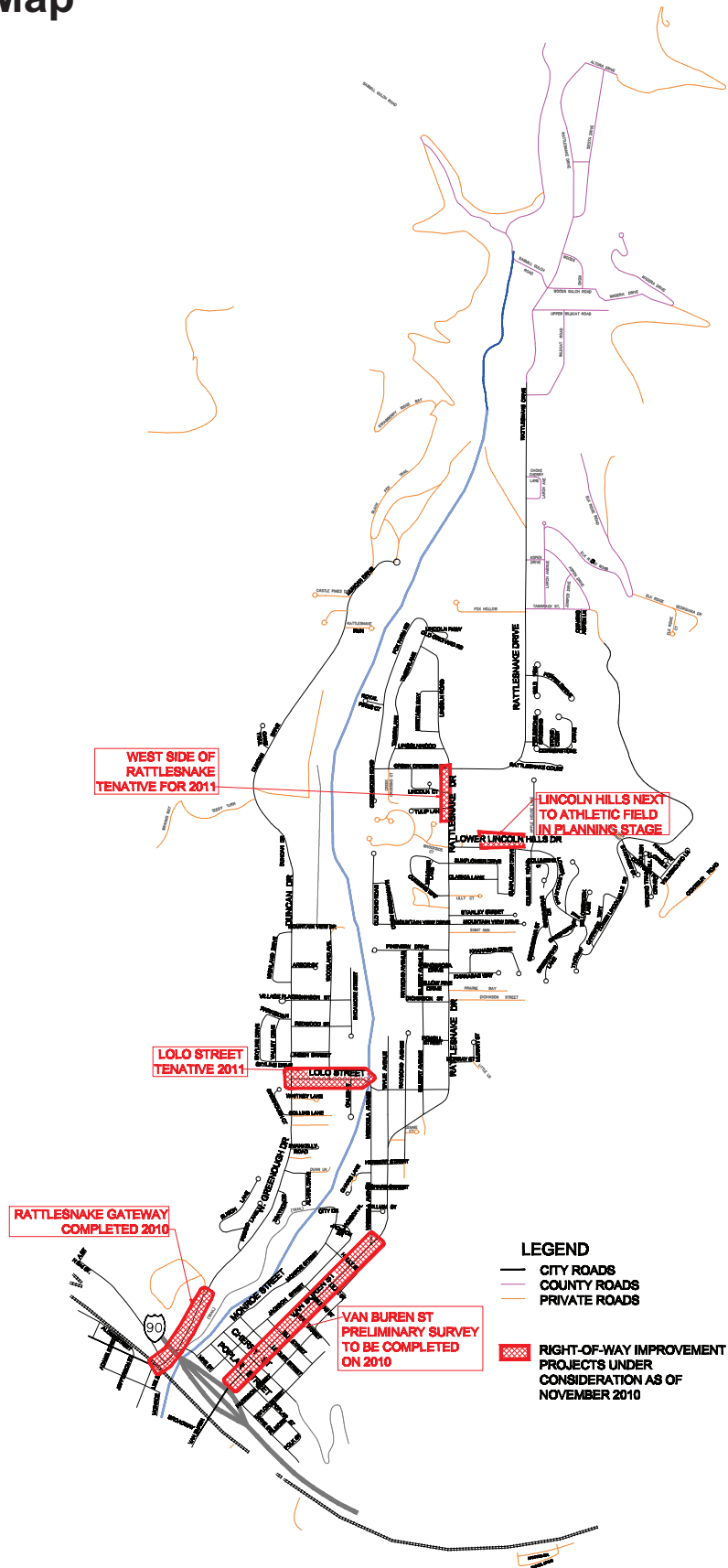
Appendix A: Collector Street Map



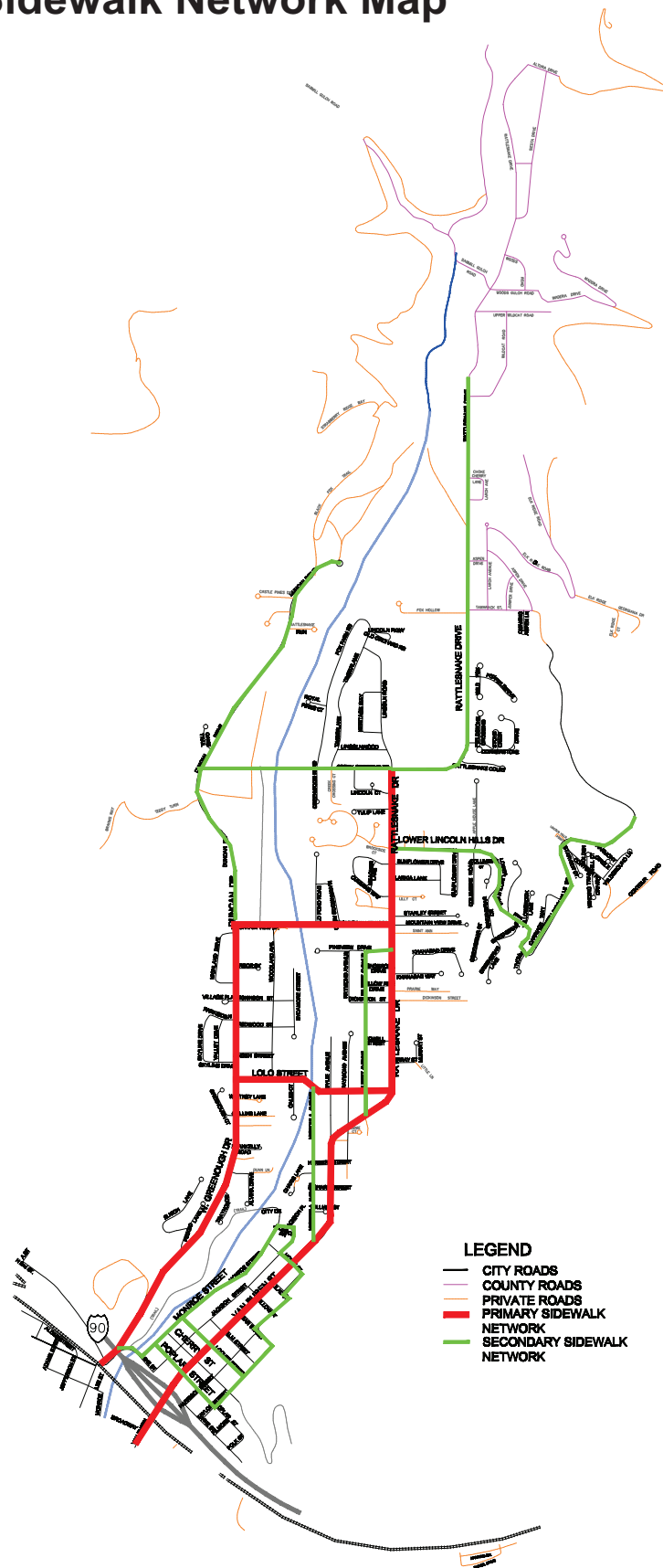
Appendix B: Existing Sidewalk and Trails Map



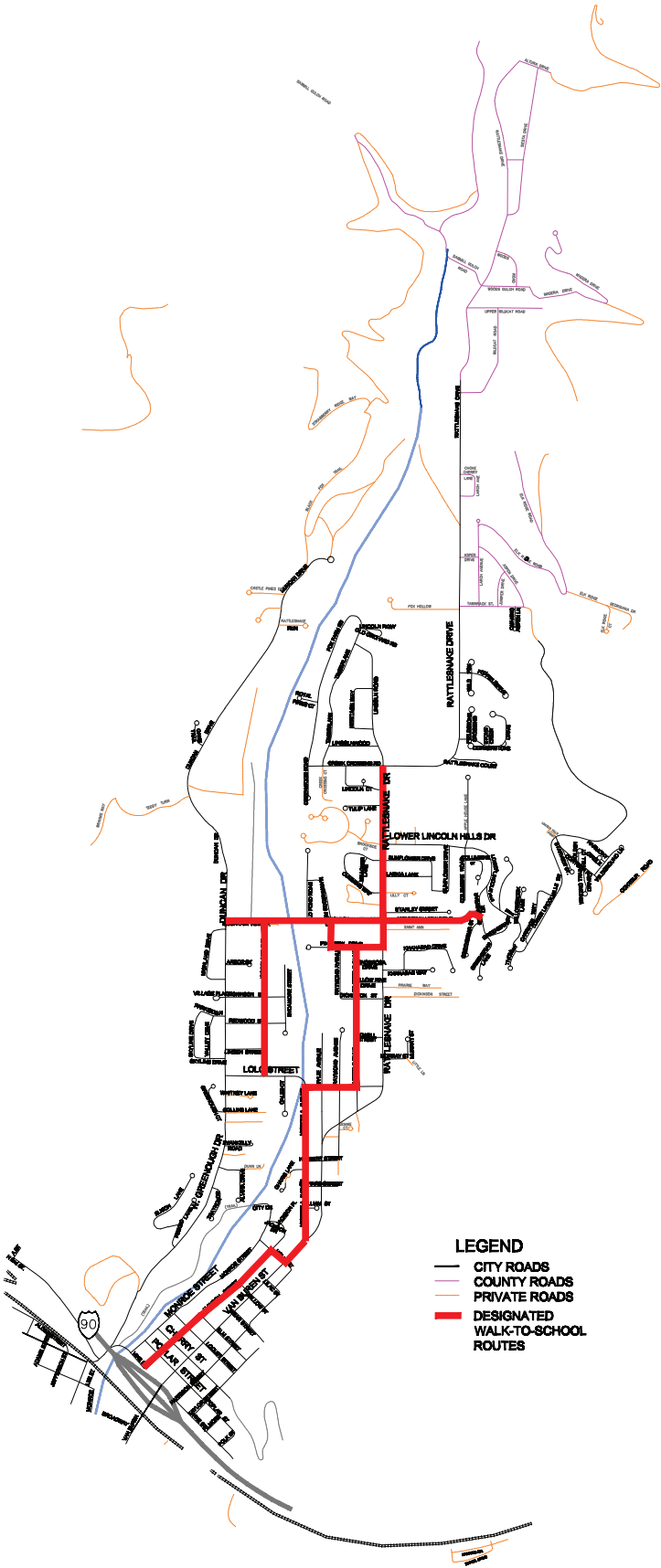
Appendix C: Planned Improvement Projects Map



Appendix D: Primary and Secondary Sidewalk Network Map



Appendix E: Walk to School Routes Map



Appendix F: Completed Sidewalks as of May 2010

Listed below are street segments where sidewalks have been recently installed or upgraded. Sidewalk-length measurements were approximated, using the scale on the map. Percentages of completed sidewalks were then calculated, using street length times two (assuming sidewalks on both sides of the street). That number was divided into the length of completed sidewalks for that segment.

1. Van Buren – Poplar to 1800 Van Buren Length of segment = 3700 feet $2 \times 3700 = 7400$ feet Up-to-date sidewalk = 200 feet Percentage of sidewalks = appx. 3%	5. Rattlesnake Drive north from Pineview To Creek Crossing Length = 3000 feet $\times 2 = 6000$ feet Sidewalks 3350 feet Percentage of sidewalks = appx. 56%
2. 1800 Van Buren up Rattlesnake Drive to Lolo Street Length = 2600 feet $\times 2 = 5200$ feet Sidewalks = 600 feet Percentage of sidewalks = appx. 12%	6. Mountain View Drive to footbridge Length = 1200 feet (south side of Street Sidewalks (south side) 1200 feet Percentage of sidewalks = 100%
3. Lolo west to bridge Length = 1600 feet $\times 2 = 3200$ feet Sidewalk = 3200 feet Percentage of sidewalks = 100%	7. West of Lolo Bridge to Duncan Drive Length = 1100 $\times 2 = 2200$ feet Sidewalks = 150 feet Percentage of sidewalks = appx. 7%
4. Rattlesnake Drive north from Lolo to Pineview Length = 2400 feet $\times 2 = 4800$ feet Sidewalks = 200 feet (by Rattlesnake Gardens Percentage of sidewalks = appx. 4%	8. Greenough Court north up Duncan Drive to West Mountain View Length = 3200 feet $\times 2 = 6400$ feet Sidewalk = 75 feet Percentage of sidewalks = less than 1%

Appendix G: Road Width Survey Table

Width of Rattlesnake Drive from Creek Crossing to Missoula Avenue									
Location of Measurement Street	Total Length in Inches	West Lane	East Lane	East Shoulder	Length of Each Lane in Inches	West Lane	West Shoulder	East Lane2	East Shoulder3
50' South of Creek Crossing	477	371	240	111		131	106	129	111
50' South of Lincoln Court	420	353	219	89		134	67	130	89
50' South of Tulip	475	370	235	96		135	105	139	96
50' South of Lincoln Hills	440	364	230	96		134	76	134	96
50' South of Sunflower/Cummings	460	384	249	116		135	76	133	116
50' South of Clarkia	450	375	242	110		133	75	132	110
50' South of Lily Court/Cummings	423	350	216	88		134	73	128	88
50' South of Stanley	396	320	200	84		120	76	116	84
Bulbout	333	254	136	0		118	79	136	0
50' South of Mountain View	417	330	201	70		129	87	131	70
Bulbout	268	268	133	0		133	0	133	0
50' South of Pineview	417	330	201	70		129	87	131	70
50' South of Ponderosa	401	329	200	67		129	72	133	67
50' South of Yellowpine	406	324	196	62		128	65	131	62
50' South of Dickinson	409	335	204	71		131	74	133	71
50' South of Powell	391	313	185	48		128	78	137	48
50' South of Lolo	427	353	214	72		139	74	142	72
50' North of Gilbert	430	332	201	70		131	98	141	70
50' South of Gilbert	390	327	200	69		127	63	131	69
50' South of Raymond	396	326	196	62		130	62	134	62
50' South of Wylie	462	356	228	97		138	106	131	97
50' South of Herbert	437	396	232	105		164	41	127	105
50' South of Richard	397	331	197	79		134	66	118	79
Hill next to the speed limit sign	402	346	209	93		137	56	116	93
50' North of Missoula Ave	428	428	206	84		222	0	122	84
Length of Rattlesnake Drive from Creek Crossing to Missoula Avenue									
Location of Measurement Street	Total Length in Feet	West Lane	East Lane	East Shoulder	Length of Each Lane in Feet	West Lane	West Shoulder	East Lane	East Shoulder
50' South of Creek Crossing	39.75	30.92	20.00	9.25		10.92	8.83	10.75	9.25
50' South of Lincoln Court	35.00	29.42	18.25	7.42		11.17	5.58	10.83	7.42
50' South of Tulip	39.58	30.83	19.58	8.00		11.25	8.75	11.58	8.00
50' South of Lincoln Hills	36.67	30.33	19.17	8.00		11.17	6.33	11.17	8.00
50' South of Sunflower/Cummings	38.33	32.00	20.75	9.67		11.25	6.33	11.08	9.67
50' South of Clarkia	37.50	31.25	20.17	9.17		11.08	6.25	11.00	9.17
50' South of Lily Court/Cummings	35.25	29.17	18.00	7.33		10.67	6.08	10.67	7.33
50' South of Stanley	33.00	26.67	16.67	7.00		10.00	6.33	9.67	7.00
Bulbout	27.75	21.17	11.33	0.00		9.83	6.58	11.33	0.00
50' South of Mountain View	34.75	27.50	16.75	5.83		10.92	7.25	10.75	5.83
Bulbout	22.33	22.33	11.08	0.00		11.25	0.00	11.08	0.00
50' South of Pineview	34.75	27.50	16.75	5.83		10.75	7.25	10.92	5.83
50' South of Ponderosa	33.42	27.42	16.67	5.58		10.75	6.00	10.75	5.58
50' South of Yellowpine	33.83	27.00	16.33	5.42		10.67	6.83	10.92	5.42
50' South of Dickinson	34.08	27.92	17.00	5.92		10.92	6.17	11.08	5.92
50' South of Powell	32.58	26.08	15.42	4.00		10.67	6.50	11.42	4.00
50' South of Lolo	35.58	29.42	17.83	6.00		11.58	6.17	11.83	6.00
50' North of Gilbert	35.83	27.67	16.75	5.83		10.92	8.17	10.92	5.83
50' South of Gilbert	32.50	27.25	16.67	5.75		10.58	5.25	10.92	5.75
50' South of Raymond	33.00	27.17	16.33	5.17		10.83	5.83	11.17	5.17
50' South of Wylie	38.50	29.67	19.00	8.08		10.67	8.83	10.92	8.08
50' South of Herbert	36.42	33.00	19.33	6.75		13.67	3.42	10.58	8.75
50' South of Richard	33.08	27.58	16.42	6.58		11.17	5.50	9.83	6.58
Hill next to the speed limit sign	33.50	28.83	17.42	7.75		11.42	4.67	9.67	7.75
50' North of Missoula Ave	35.67	35.67	17.17	7.00		18.50	0.00	10.17	7.00
Compiled by Don Sims and Bob Giordano									

Appendix H: Ad Hoc Summit Transportation Group Letter Regarding Van Buren Street

May 13, 2010

Dear Dave Strohmaier and Jason Wiener,

We, the Ad Hoc Summit Transportation Group unanimously agree that Van Buren Street from Poplar to 1800 Van Buren should be the top priority of all transportation projects in the Rattlesnake Valley due to the following cumulative deficiencies:

- * Sidewalks that are deteriorating, chipping apart, and irregular, collecting mud, water and ice
- * Parking on top of the sidewalks, forcing pedestrians to step into the road
- * Sidewalks lower than the streets, and poor drainage
- * Rough, irregular roadway
- * Lack of curbs
- * Mostly un-navigable by ADA populations
- * Several serious accidents and one fatality occurred there
- * Several sections where there are no visible sidewalks

In addition, there are several factors which impact the situation on Van Buren.

- * This is the most heavily-used stretch of road in the Rattlesnake. The majority of people who enter the Rattlesnake Valley use this road.
- * Over half of the dwelling units are rentals, mostly used by University students, a high percentage of whom bike to the University and shopping areas
- * Many others bike on Van Buren for recreation en route to the Rattlesnake Recreation area and other trails, including Mount Jumbo.
- * Van Buren is built out and thus the most densely-populated area in the Rattlesnake Valley.

We ask that you consider this information in the next TIGER grant. We are deeply concerned that this was omitted from the last TIGER grant application. Thank you for your assistance.

Sincerely,

Appendix I: Missoula Bicycle & Pedestrian Advisory Board Letter Regarding Van Burn Street



Missoula Bicycle & Pedestrian Advisory Board

Robin Spaziani
*Board Chair
SR2S Steering
Safety & Education
Administration*

Bob Wachtel
*Board Vice Chair
Infrastructure*

Melissa Blunt
MATP TAC

Travis Dye

Matt Jennings

Ryan Sudbury
Infrastructure

Jed Taylor
*Infrastructure Chair
Administration*

John Weyhrich
Infrastructure

Jerry Wolf
*Infrastructure
Safety & Education*

Phil Smith
Ex-officio

Greg Amundsen
Ex-officio

A Recommendation On the Matter of

The Status of Van Buren Street From Broadway Street to Poplar Street

Adopted 8-0-1
June 10, 2010

The Missoula Bicycle & Pedestrian Advisory Board, having considered the usage and configuration of Van Buren Street from Broadway Street to Poplar Street, makes the following recommendation to the City of Missoula.

- That Van Buren Street from Broadway Street to Poplar Street be nominated for the Administrative Rule 415 process.
- That the outcome of this process be implemented in coordination with the Montana Department of Transportation as soon as practical.

The Missoula Bicycle & Pedestrian Advisory Board makes this recommendation for the following reasons.

- Van Buren Street from Broadway Street to Poplar Street is functionally classified as a Principal Arterial.
- There is a significant amount of bicycle traffic on Van Buren Street from Broadway Street to Poplar Street.
- The I-90 entrance and exit ramps that connect to Van Buren Street as well as the overpass structures make this section an especially challenging stretch of roadway for cyclists whose safety would greatly benefit from additional signage and markings.
- Granting an official designation to Van Buren Street from Broadway Street to Poplar Street would make it eligible for markings and signage that would significantly increase the safety of cyclists using this section of Van Buren Street.
- Van Buren Street north of Poplar Street is designated as a Bike Lane. Providing a designation to Van Buren Street south of Poplar Street would connect to this section and extend it.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robin Spaziani". The signature is fluid and cursive, with a large initial "R" and "S".

Robin Spaziani
Missoula Bicycle & Pedestrian Advisory Board Chair
July 6, 2010

Appendix J: Transportation Summit Comments

I. Summary

General Comments:

Overall, the comments were overwhelmingly favorable for the study, with only two people saying, basically, "Leave the Rattlesnake alone." Many specifically stated that the Summit Group had their first three priorities right and thanked the group for its hard work.

Many comments concerned Van Buren, the bulbouts, Lolo Street and bike/ped/vehicle interactions. Rattlesnake Drive does not have its own category, but comments are throughout. It is clear in the reading of comments that where bikes, pedestrians and vehicles do not have adequate space or separation, people are concerned about safety issues.

Carol Elsen divided the comments into thirteen topics.

Parking:

Summary -- The majority of these comments expressed the need to have no cars parked on sidewalks. Four recommended strong enforcement of this regulation. One complained of people parking on the road instead of in their driveways.

Bulbouts:

Summary -- Bulbouts were universally criticized. No one spoke in favor of them. They were dangerous for bikes; bike traffic decreased since they were installed; children don't use them; we need community input before building such constructions; they force people and bicycles into traffic lanes; and they should be removed. One said to assess the black tire marks on the yellow bulbout markings. Another thought raised sidewalks would be a pain for drivers.

Van Buren:

Summary -- Comments were 100% in favor of improving Van Buren. There were a few questions about how to integrate Van Buren with I-90 and the danger to bicyclists as they approach the freeway and Broadway. When will the street, sidewalks and curbs be fixed? Van Buren sets the aesthetic modality tone for the Rattlesnake so do it right. Several asked why it hasn't already been done. One would commute by bike in winter with better bike lanes. Train pedestrians to face traffic. Separate the bike lane. Fix potholes first.

Lolo Street and Lolo Bridge:

Summary -- Some complained that the road was too narrow at the bridge and at the curve to the east of the bridge. One suggested removing the sidewalk from the south side and hanging a sidewalk outside the bridge. The road needs a "Narrow Bridge" sign. Lolo has become unsafe. The south turn on Missoula Avenue by bikers has caused close calls.

Bike/Pedestrian:

Summary -- The need to mitigate dangers when bikes, pedestrians and vehicles were in close proximity was addressed in comments in many ways.

We need separate bike/ped area on Lincoln Hills Drive. Where there are no bike lanes, let kids ride on sidewalks. At the 1500 Block of Van Buren, there were many near misses – bikes should use bike paths. SID for bike lanes should be paid for by licensing bicyclists. One

liked walking paths that can be plowed. Is there a possibility of sidewalks on only one side in some areas? Create a bike freeway – too much road space is devoted to bikes. Have crosswalks at bus stops. Sidewalks on Greenough crowd bike lanes. Put pedestrian routes on less-busy streets. Need continuous sidewalk from Lolo to Rattlesnake Elementary. Drivers rarely observe the speed limit. One wanted speed bumps, stop signs and more prominent signage. One commented on signage to the footpath trail down Alvina. Bike/peds must wear reflective clothing or lights after dark and this should be enforced. Bikers need to follow vehicle road rules. Cars need to steer away from bikers.

Funding:

Summary -- Some were concerned about how these projects would be paid for and what the real costs would be; others felt the costs could be met by a combination of adjacent property owner assessment and gas taxes and an SID. One offered land for the sidewalks, and another said to fix the roads first. One suggested using the \$17,000 from Cornerstone set-aside on the Van Buren project.

Planning:

Summary -- These comments were quite varied. Do the work from south to north on urgent items. Learn from other communities and have a master plan. When will we look at the area from Rattlesnake Court north to Tamarack? Why narrow the streets? Cultivate ownership of this plan. Plan for infill. Restrict traffic to "local" on some streets for bike/pedestrians. What clout does this plan have? One said to maintain the existing infrastructure.

Snow Management:

Summary -- There was concern about plowed snow narrowing the roads, blocking pedestrian/bike movement, covering sidewalks and closing off driveway entrances. People wrote long, detailed comments.

Speeding (ticketing/licensing)

Summary -- There were several comments regarding lowering speed limits in areas where the limit is currently 35, or down from 35 to 25 or 30. It was suggested that bicyclists who ride two-abreast or cross to the other side of a road in the middle of a block be ticketed. Another suggestion was made that bicyclists should have to register as they did in the past, and that bicyclists should be ticketed if they drive at night without reflective gear or lights. One suggested that small children are a hazard, inexperienced and difficult to see, so should not bike on arterials (connector streets?).

Potholes:

Summary -- Comments on potholes are interspersed throughout the document. People wanted them repaired correctly and soon. Maybe the worst ones could be outlined with bright color spray while waiting to be repaired.

Size of Roadway:

Summary -- There were comments throughout the document on the narrowing of roads. It appears that people see the narrowing as increasing the risk for bike/ped/vehicle interactions – that there is not enough space to share.

A sampling of comments follows: Don't make bike lanes so wide; roads should be wider; will the roads be wider if I support this plan?; several commented on the dangerous

intersection of Lolo Street and Rattlesnake Drive; request for raised crosswalk on Duncan intersection with Highland Drive, and Mountain View at speed change where drivers come downhill too fast. Verbal concern expressed about Lincoln Hills Drive steep hill where downhill speed increases coming to sometimes congested parking/foot-traffic area by soccer fields.

Miscellaneous:

Samples: Has the volume of road use changed over the last 5-7 years? Consider cars as well as bike/pedestrian traffic. Wildlife Crossing sign needed between Lolo and Lincoln Hills. Manage according to usage. The narrow streets and high traffic are a concern. Connect neighborhoods for children on side streets – this will clear the connectors for emergency vehicles. Wide shoulders and bike lanes should extend the entire length of the main corridors. Modify the curve on Lolo at Missoula Avenue because it's too dangerous.

A few comments were out of scope for this study.

TO BE ADDED IN THE FUTURE:

- * Traffic Volumes
- * Census Data
- * Crash Reports
- * Comment on urban/rural nature of the Rattlesnake
- * AASHTO Standards – Policy on Geometric Design of Highways and Streets

II. Transportation Summit Comments

Parking

- They need to enforce cars not parking on sidewalks and bike lanes.
- Please increase parking enforcement so that sidewalks and bike paths are not blocked. Any plans for outreach and education about appropriate parking?
- Why is the City so passive about vehicle parking on sidewalk and sidewalk cleaning enforcement?
- What about resolving some of the current problems by enforcing current laws or statutes – e.g. No Parking on sidewalks?
- Woodland Street between Lolo north to Dickinson is a bus route and a designated route to walk to Rattlesnake School. Lately people have been parking on both sides of the street instead of in their driveways. This has made Woodland a winding single lane street. Would it be possible to return this to a 2 lane street? It would sure be easier to pass the bus and avoid hitting school children. Could the police ticket these cars and trailers? --Douglas Grimm
- And what about the 4 house development with inadequate parking at the west end of Lolo Street and Greenough!?!? The front porch steps encroach onto the shoulder of Lolo Street!!! If a car parks in front of those houses, it is on the white line of the street or partially in the street! If a sidewalk were to be built it would be the last step of the porches. Sandra Greene 4916 Rattlesnake Dr.

Bulbouts

Against Bulbouts:

- Virginia Bar: The bulbouts of Rattlesnake Drive by Rattlesnake School are dangerous to drivers and bikers. Most importantly, the school children don't use them. These need to be removed and the effectiveness of bulbouts reassessed. Bulbouts have proved to be a huge waste of taxpayers' money and they should have been tested before they were installed.
- Get rid of bulbouts. VERY dangerous for bikes.
- Two recent examples of "suboptimal" outcomes in important projects:
 - 1) Southwest entrance to Greenough Park – northbound bikes entering the park have no clear way to signal "turn" to westbound drivers stopped at Greenough Drive.
 - 2) Rattlesnake bulb outs – addressed in this meeting. Answer: get community input from diverse sources before designing and building structures.
- Why is the city spending so much building curbing, bulbouts, blocks at turns and sidewalks when money should be spent on making streets better?
- The bulbouts at Rattlesnake school REQUIRE them to move out into the lane - I consider that a very dangerous area. Susan Barmeyer
- Bump-outs are incredibly dangerous. At most, they should stick out no more than half way between curb and the white traffic line. Holly Thompson 509 Arbor Drive Missoula, MT 59812

- The bulbout on Rattlesnake Dr. next to the school is unsafe & forces bicyclists into traffic (especially worrisome because children may use it to commute to school). Karin L. Riley Doctoral Candidate, Department of Geosciences, University of Montana, Missoula, MT 59812
- And when those items can be afforded, if you really want to make our area safer, spend the first dollars available on removing the dangerous bulbouts. Here's a challenge for you -- when the snow is gone, try to find a single bulbout whose yellow curb is not completely blackened from vehicle tires. Be sure to include the last bit of curbing on west-bound Lolo Street approaching the bridge over Rattlesnake Creek. Bob Knapp 4290 Wild Fox – owner
- The bubble outs at the school are flat dangerous for cyclists and vehicles alike, I hope an improvement for pedestrians. Marc Olson
- Some of these decisions including bulbouts need to be deleted. Sheila Metcalf, Peggio Lane
- I find the bulbouts are definitely not desirable. They are dangerous for cyclists. Ginny Cass
- Nearly equally dangerous and insanely striped is that bulbout at Rattlesnake School propelling bikers into the car lane with the north bound car having nowhere to go but into the southbound lane—especially troublesome with oncoming southbound cars! Plus the snow banks cover up the bulbout. Pedestrians who wish to cross the street could be seen perfectly well before the thing was put in!
- There is a bulbout on Rattlesnake Drive at the Rattlesnake School which is very dangerous to bicyclists. I got caught at that narrow spot when the bulbout was first constructed.
Thanks for your work. Robert Wiesner—homeowner 1150 Monroe St.
- Bulbouts are incredibly dangerous for bikers. I doubt rumble strips would fit, and while sidewalks/ curbs are wise, they are expensive. Raised crosswalks are a pain for drivers. Heather Robb—homeowner 1524 Tamarack Street
- Remove curbing that protrudes into the street near Rattlesnake Grade School to remove danger for bicyclists!! Bike traffic has decreased significantly since installation--especially for young bike riders. Use west side of valley for bike lanes--less traffic on that side. If you want sidewalks move into town. Leave Rattlesnake wild. No roundabouts, speed bumps, sidewalks...No on street parking would be nice J Hoggatt—homeowner 13 Columbine Rd

In Favor of Bulbouts:

- None

Van Buren

In Favor of Fixing Van Buren:

- The cost of sidewalks, curbs and gutters on Van Buren should be carried by a combination of homeowners (40%), gas tax + SIDs (60%). This street is used

by almost all lower (and upper) Rattlesnake residents – bicyclists, pedestrians, and drivers.

- Lower Rattlesnake/ Van Buren: Is there a strategy to integrate DOT Van Buren/I90 interchange and Cherry Street/Poplar Van Buren Intersections
- When will the City fix Van Buren comprehensively improving the street as well as the bike lanes and sidewalks?
- I think the most dangerous place for bicyclists in the Lower Rattlesnake is on Van Buren between Poplar and Broadway. This is where bicyclists have to cross a major lane of traffic going south and are forced into a very narrow lane going north. There must be something better. Peter Lesica
- The initial Rattlesnake entry on Van Buren sets the “tone” both aesthetically and modally i.e. driving, walking and biking for the entire corridor. It is very important that this segment from Broadway to Missoula Avenue is done right, not just a “hurry-up get the sidewalks in” job.
- I think you nailed the highest priority items exactly right. If I were to further allocate the 3 “urgent” items, I would order them essentially South to North in order of priority: 1) Van Buren (Missoula to Holly St in particular) 2) Lolo Street 3) Rattlesnake Drive
- Van Buren needs serious street improvement, not just the quick fix of ordering in sidewalks, curbs and gutters.
- When the Cornerstone PUD was approved in 1991 by the City Council, approximately \$17,000 of funds was paid by developers for future use in road infrastructure. The City has been sitting on these funds for 18 years! Why? Use them for sidewalk and bike lanes on Van Buren and Rattlesnake Drive.
- A high quality, more expensive “fix” of Van Buren would add greatly to the “value” of the entire Rattlesnake Valley. It would last longer and in the long run cost less than a quick fix.
- After all these years, why hasn’t any improvement been done on Van Buren?
- How come Lower Greenough Drive was done before Van Buren? The City built “Sidewalks to nowhere” on Greenough!
- Freeway entrances and exits on Van Buren need to be safer for bikers and pedestrians
- How about a roundabout at the interstate and Van Buren? I would love it. I find it difficult to see oncoming traffic with the concrete posts from the bridges there. Maybe people would slow down rather than speed up .
- Also, the wonderful speed sign on Van Buren is great. Maybe another one near the school? Maxine Lane 2329 Rattlesnake Dr. 531-7336
- The southbound bike lane on Van Buren that goes under the highway to Broadway is also scary. I've nearly been run over on my bike a number of time by drivers who don't understand the lane--they will drive in the bike lane, or cross it when I am in it! Is there a way to mark it more clearly, and let drivers

know not to cross it when occupied? Karin L. Riley Doctoral Candidate,
Department of Geosciences, University of Montana, Missoula, MT 59812

- With Van Buren so badly in need of a complete (correctly done) repaving, this is not the time to be spending one dime on the items mentioned in the newsletter. Bob Knapp 4290 Wild Fox – owner
- I would commute more in the winter if there were satisfactory bike lanes along all of Van Buren Street. Marc Olson
- Other than one woman struck quite a few years ago while walking late at night in the Van Buren Street roadway because a sidewalk had not been shoveled (I don't remember whether she or the driver was drunk), I've never seen or read of a single accident on Van Buren Street involving vehicles/bicycles, pedestrians in the last 17 years. If you want to make Van Buren/Rattlesnake Drive safer, train pedestrians to walk/run facing traffic. Bob Knapp 4290 Wild Fox – owner
- The fixed, lighted speed detector on VanBuren is the most (only?) useful thing that has been done on VanBuren in the many years I have lived in the Rattlesnake. Sandra Greene 4916 Rattlesnake Dr.
- Hooray! This committee is a terrific development in this community! Here are our priorities.
 1. Van Buren--until this fixed we will risk hurting people every day!
 - a. Potholes-extremely dangerous due to avoidance maneuvers
 - b. Separated bike/ped lane
 - c. Move the parking--provide parking off-roadMany people (including us) would walk/bike more if Van Buren were fixed. Colleen Matt and Larry Aumiller—homeowner 2805 Winding Trails Dr. NE Quadrant
- We need to have Van Buren replaced from the freeway to Missoula Ave.--with curbs and sidewalks. It's a safety problem with as many bikes and walkers use this busy road. Kevin and Kim Gordon—homeowner 1803 and 1805 Missoula Ave.
- Until the roads on the Rattlesnake (Van Buren lower 1st priority) are **completely** repaved, (not patched!!) you must drop the idea of paths and sidewalks--especially ones that extend into the road. We pay our taxes for roads **first** then when they are in great condition use any extra for improvements. We do bike this area and have never felt unsafe as the paths are currently. Matthew and Kim Fein—homeowner 6 Starview Ct

Against Fixing Van Buren:

None

Lolo Bridge

- On the Lolo Street Bridge...would it be possible to remove the sidewalk on the south side of the bridge and hang it on the outside of the bridge? I would suggest it be constructed like the footbridges that cross the creek on Mountain View. In cross section, those footbridges look like a T. ---Douglas Grimm

- Lolo Bridge is very dangerous now that it has been narrowed.
- I, like many others walk my neighborhood for enjoyment. However, who is the engineer that designed the sidewalks adjacent to the Lolo Street Bridge. The road is narrow with a sharp turn that does not allow a full size pickup and full size car to pass simultaneously. Not to mention the street department has no where to put plowed snow which makes the street even narrower. The solution to this problem was a sign on either side stating "narrow bridge". If you insist on bike lanes and sidewalks get the necessary easements to allow the smooth flow of traffic along with these amenities. Suzan Olinger
- The new bridge was widened because of so many accidents. Now it's narrow again with TWO sidewalks that end with nowhere to walk on the west side! Thank you for considering that section urgent. Vance and Pam Bennett
- Thank you so much for the endless time it took to document and present your study and for the "Rattlesnake News!" Greatly appreciated.
- Attached are some of my top concerns for safety when traveling by and means. They coincide very much with your. I agree vehemently with you regarding Lolo street having become truly unsafe. I'm less, somewhat, familiar with VanBuren as I take much care to avoid it if at all reasonably possible. At least the Lolo St. gauntlet is much shorter!
- Thanks for this opportunity!
- East side approach to Lolo Bridge for west-bound traffic—the curve is too sharp!! East bound traffic cuts the curve and encroaches into the westbound land leaving nowhere for the west-bound traffic to go except up and over the curb. This is especially bad in winter with the snow banks narrowing the already close quarters as well as obscuring the white shoulder lines. All compounded by the one-way-north Missoula Ave traffic onto Lolo and in addition to the bikers and peds turning south on the one way street (going north!). I have very nearly been hit had I not jumped the curb on many many occasions and have nearly hit bikers west bound turning left (south) onto Missoula when I was eastbound—esp. when they come down the hill fast and also do not signal a left turn. This is a highly dangerous area! Sandra Greene 4916 Rattlesnake Dr.

Bike/Pedestrian

- Lincoln Hills Drive should have separated pedestrian/bike right of way – but how? Walkway on one side only? Funding through SID?
- In places with no bicycle lanes, children should be allowed to ride on sidewalks. This might be less advantageous for pedestrians but the kids would be safer than riding in the streets. Ginny Cass
- As a Rattlesnake native I am glad to see something being done about safety. Putting sidewalks up both sides of Lolo Street on the east side and none on the other made no sense to me. Another dangerous spot is the 1500 block of Van Buren sidewalk that turns on to Missoula Ave. I have been told that bikes can legally ride on the bike path, the street, and the sidewalk. I have been nearly run down several times by bikes that are very nasty to me when I suggest that

- they use the bike path. The only place to walk is on the sidewalk. Any suggestions? My husband and I are retired and walk a lot. We turn down to Jackson Street as soon as possible. Vance and Pam Bennett
- Of course, my needs favor biking lanes, but I do understand the need for sidewalks. I tried walking from the U several times, and that is very dangerous without sidewalks on certain sections. Marc Olson
 - Since SIDS are used to fund projects paid for by those who benefit, how about a SID for bike lanes paid for by bicyclists through the bicycle license?
 - An annual \$25-\$50 SID for every bicycle would help pay for the bike lanes.
 - Motorists pay a usage fee through the gasoline tax. By analogy, how about a usage fee for cyclists?
 - I think bikes get too much space and attention. I rarely see them or encounter them on the roads that offer bike lanes.
 - 1) Bike Lanes need to be connected from the Rattlesnake gateway to the Rattlesnake NRA. 2) Railroad tracks should be a clean air zone with signs to discourage idling vehicles so bikers and pedestrians don't have to deal with exhaust fumes.
 - Make Gilbert one way south and move all ped and bike traffic off Rattlesnake to Gilbert (I live on Gilbert – M. Chapman) Solves the urgent problem at less cost.
 - On the priorities map Gilbert Ave is flagged as a "High Priority" for sidewalks. Could it be possible to have a sidewalk only on the west side and not the east side? There are more than a half dozen or so native pine trees in the right of way on the east side maybe one on the west side. There are four cross streets for pedestrians and children to cross on the east side and only one on the west side. School buses exit by turning left off Gilbert onto Ponderosa on the east side.
 - In some (many?) places it seems sidewalks on one side of the street only would be a space-sharing option. Yes?
 - Bike lanes: Too much road space is devoted to bikes. Create a "bike freeway" through parts of town and funnel the side streets into main bike lanes (not Orange/Stephens).
 - I love the idea of 2 walking paths on Duncan that can be plowed. How practical is that?
 - Sheila Metcalf, Poggio Lane The planning for autos should be the least in priority. Sounds severe! Drivers are asked to give way to pedestrians (which I think is unfortunate. We did not learn to drive watching other cars, lights, and doing the right thing with the addition of using peripheral vision for pedestrians jumping out in front from the side – or worse – jumping out in front of three or four cars in front which you cannot see beyond oncoming traffic etc. It is a very dangerous law for an otherwise good driver. The pedestrian should have another light at another block

- I would like to see cross walks where the bus stops are. It might help to make people more aware of people crossing the street. Maxine Lane 2329 Rattlesnake Dr. 531-7336
- The wide sidewalks that were recently installed on Greenough also left little room for the bike lanes. I think that any improvements for pedestrians should not come at the expense of space for bikes. I see many more bikes in the Rattlesnake than pedestrians. Susan Barmeyer
- I do think that planning for safety for both pedestrians and bike riders is possible. Bikes consider themselves to be more like cars and want a direct route. The main streets should be wide enough to accommodate them safely and should be free of major impediments. Pedestrians often want a quieter route and could be accommodated by building sidewalks on less travelled routes. Susan Barmeyer
- I am very glad to see the progress on safe transportation for the Rattlesnake. I am both a frequent all-season bicyclist & driver. I won't be able to attend the February 27 meeting, but would like to make a couple of comments. I am enjoying the bicycle/ped bridge over Rattlesnake Creek at the end of Duncan! Karin L. Riley Doctoral Candidate, Department of Geosciences, University of Montana, Missoula, MT 59812
- We agree that NE1 deserves "Urgent" priority -- there really must be a continuous sidewalk from Lolo St up to Rattlesnake School. Also, if NE1 is completed, there might be less demand/pressure on NE7. Roland & Marvie Redmond (owners) 3321 Old Pond Road Missoula, MT 59802
- I also agree that pedestrian infrastructure is urgent between Alvina and Lolo St (on Greenough), again as this is a main trail connecting route. I appreciate your hard work addressing these issues. I look forward to monitoring the progress and pitching a helping hand if I can. Dan Shirley 608 Lolo St
- I sincerely appreciate your efforts. The problems outlined in your mailing are spot on. As a resident of Lolo st (between the bridge and Duncan) I see/experience the desperate need for non motorized improvements daily. In the section that I live on, there are no sidewalks, and the roadway is narrow without any shoulder. This is extra problematic because this street is a direct connecting point between the Greenough park trail system and Pineview park resulting in frequent pedestrian use. To compound the problem, drivers rarely obey the speed limit. A conservative estimate is that 70% of drivers speed and 50% use excessive speed (>10mph over) and probably 15% frankly scare me with how fast they travel. I realize this is a main east/west connector between Rattlesnake drive and Duncan, but I urge the input of more traffic control devices. Speed bumps, stop signs, and/or more prominent signage. I see this as absolutely necessary even if pedestrian infrastructure is put into place. Homes are situated very close to this road (because it seems the easement is so

narrow- no shoulders etc) which equates to dogs and kids being close to the road when outside of their homes. Dan Shirley 608 Lolo St

- We agree with the top three priorities. We'd like to see priority #4 be: Greenough Drive, Lolo to Alvina NM Improvements. This route is used by many pedestrians and bicyclists because of the connection down Alvina to the bike/foot path) but there are no sidewalk or bike lanes on Greenough to counter lots of arterial street vehicle traffic. Also, in the short term signing the access to the bike/foot trail from Greenough down Alvina might help some bikers and walkers avoid using Greenough Drive south of Alvina. Thanks again for your work.
Homeowners: Tom and Terry Carlson 2319 Woodland Ave. Missoula, MT 59802
406-721-1416
- Bikers and peds just must wear reflective clothing and bikers are required to have proper lighting after dark. This must be enforced somehow. Citizen tickets, education plus Um students, etc etc and peds frequently do not walk/run facing the traffic.
Bikers often don't follow vehicle road rules—signaling, inappropriate turns and passing, riding side by side, going across bike path lane into car lane (where bike paths exist), deliberately not hugging the shoulder when a car comes behind them etc. Cars also can be obnoxious (dangerous) by not steering away from bikers even when there are no oncoming cars. Sandra Greene 4916 Rattlesnake Dr.

Schools

- Bev Young, 1561 Mountain View Drive: Issue of kids commuting to school from north of Creek Crossing – Aren't there pedestrian rights-of-way connecting Applehouse to other neighborhoods further north? I have connected from the east end of Mountain View to Columbine to Applehouse to Cornerstone to Wild Fox. (you have to come out to Rattlesnake Drive at Rattlesnake Court but, other than that, it's off the main road)
- Sheila Metcalf, Peggio Lane: In design, I believe what the priorities are for each user. I believe that bikes, pedestrians and possibly children are the most important in some areas such as by the university, by schools, home neighborhoods and other sanctified places
- We live on the south (east?) little section of Raymond – very dangerous trying to cross Rattlesnake to get to school. Any chance for a crosswalk or how about a sidewalk up to Gilbert and a cross walk at Gilbert?
- First let me state that safe routes to school are very important. Suzan Olinger, 2436 Wylie Ave Missoula MT 59802, Home owner for 30 years
- School bus stops should always be marked with signs and crosswalks, especially when they are on busy streets, such as Rattlesnake Drive. Ginny Cass
- Some sort of reminder to slow down through the more dense residential area with kids walking and riding their bikes to Rattlesnake School would be very

helpful and hopefully not too expensive. Caroline Byrd—homeowner 2808 Highland Dr.

Funding

- The cost of sidewalks, curbs and gutters on Van Buren should be carried by a combination of homeowners (40%), gas tax + SIDs (60%). This street is used by almost all lower (and upper) Rattlesnake residents – bicyclists, pedestrians, and drivers.
- Can the landowners pay for a percentage of the curb/sidewalk cost and the other percentage be divided among the whole Rattlesnake? It improves all our property values.
- Can we please have a per-foot cost estimate of sidewalks, curbs and gutters?
- Have you ever thought of using asphalt sidewalks for both bikes and peds instead of wide bike lanes and cement sidewalks? It would be cheaper to repair and easier to implement. Cement is expensive.
- Why are sidewalks so expensive?
- Are all the urgent priorities funded? Do the funding priorities match the priorities listed here?
- Douglas Grimm: Ask the state legislature to increase the state gasoline tax by 3 cents which will go to cities and communities for street building and repair.
- I am a homeowner on Lolo Street and I believe sidewalks are a MUST. And I am pleased to donate my property for the greater good. That said, where will the funding come from? And fencing relocation etc?
- Bev Young: Are landlords in the lower Rattlesnake willing to kick in for curbs/gutters/sidewalks? They may not see the benefit.
- Chuck Sperry, 549-2125: To what degree can projects be developed in advance of funding(e.g. design, contract specs, environmental studies etc) so as to have them "on-the-shelf" should unexpected funding come?
- By the way, and you may have already been discussing this and I was not listening but, how are we going to pay for this? I can't believe it is in the budget for this extensive a repair job. My only comments on this matter are that we will, of course, support the council's decision. But just one point, please tell us what it is really going to cost. No Russell st bridge and/or third street, or the indoor pool, or the stadium. You get my point. I'm happy to pay my share of the price tag. But nothing makes me crazier than being told one thing and having it be 3 or 4 times the amount. Secondly, please do an RFP for the contract so we can get the best price and employ local folks. Wayne & Betsy Chamberlain 4140 Timberlane St
- Where is funding likely to come from? Marc Olson
- Where is the money going to be found? How about fixing our roads first? They are horrible. CW Bud Fein—homeowner 4295 Duncan Dr.

Planning

- Chuck Sperry, 549-2125: Once there is a settle "plan" in place following the hard and good work of the "Summit Group," it will be very important to do a larger scale job of cultivating ownership of the plan by a majority of the "Snake" residents. This will avoid the otherwise inevitable controversy that comes up when people are "surprised" as projects approach reality.
- I think you nailed the highest priority items exactly right. If I were to further allocate the 3 "urgent" items, I would order them essentially South to North in order of priority: 1) Van Buren (Missoula to Holly St in particular) 2) Lolo Street 3) Rattlesnake Drive
- Why not expect "infill" to happen in the Rattlesnake? Why not plan for a doubled population right now? Expect density and mitigate the safety issues ahead of time to maximize the value on current dollars spent on infrastructure. Rattlesnake improvements should be funded by the state and the city, as well as residents. We are a corridor to the National Forest. This includes Duncan Drive as a trail head. Many, many non-residents come up to see the wildlife and experience the wide rural road and beauty. I lived there and had to share the road as a resident and a pedestrian.
- From Eric Edward:
Can you do more to ensure diverse citizen input during early planning of improvement projects? My goal is to optimize projects for all different transport modes.
Two recent examples of "suboptimal" outcomes in important projects:
 - 1) Southwest entrance to Greenough Park – northbound bikes entering the park have no clear way to signal "turn" to westbound drivers stopped at Greenough Drive.
 - 2) Rattlesnake bulb outs – addressed in this meeting. Answer: get community input from diverse sources before designing and building structures.
- From Bernice Leoney:
Issaquah, Washington had to suffer through the school/safety/sidewalk fiasco. Why not incorporate a Master Plan for road use, using guidelines from other towns who have already dealt with road congestion? A master plan will help alleviate making expensive mistakes that need to be redone because many want to stop or slow growth, but inevitably negatively impact their own property values. For the amount of use they get, bikes get too much priority of roads in this town. Traffic should be encouraged to move over, out of the traffic (bike on Reserve) to begin right hand turns for the condition of roads this past winter how much are bikes out?
- When will the City design and implement pedestrian and bike lanes from Rattlesnake Court north at least to Tamarack?
- 1) Why are we narrowing all the streets in Missoula 2) Curbs are very dangerous for bikers.

- Who or what drives curb, gutter and sidewalk infrastructure for new developments? Can the Council make sidewalks, curbs, and gutters mandatory for all new developments so that thirty years from now we don't have to retro-fit in areas that become increasingly dense – eg Sharon Gardens.
- Is there a reasonable way to restrict traffic to "local" on certain streets that are major walk/bike roads (like Missoula Ave.) to allow for some separation?
- Cherry and Poplar from Van Buren to Monroe are important collectors
- How much clout does this plan have?
- When will an engineering plan be available to show impacts on property and existing improvements? And existing trees? What is the schedule for the high priority of the Gilbert sidewalks?
- The sidewalk on the east-north side of Lolo Cr. Is unsafe (particularly corner projection) . Could this be removed – it sticks out into the road.
- If push comes to shove, why not put sidewalks on one side of the road?
- And what about the 4 house development with inadequate parking at the west end of Lolo Street and Greenough!?!? The front porch steps encroach onto the shoulder of Lolo Street!!! If a car parks in front of those houses, it is on the white line of the street or partially in the street! If a sidewalk were to be built it would be the last step of the porches.

Of course development will continue to be done (eventually) but does it have to be approved by the "city planners" when it is so blatantly irresponsible and without regard for the impact on the surrounding infrastructure e.g. roads, schools, utilities etc. Which the existing residents will have suffer with and pay for! (e.g. now) The Rattlesnake Valley is indeed an historic valley with only two country roads in and out (VanBuren/Rattlesnake and Greenough/Duncan) that were never designed for nor intended for rampant growth. Developers and city planners should be responsible for orderly well thought out plans in consent with the existing residents BEFORE the developments are approved. E.g. the impact of traffic on the whole valley—not just contiguous sidewalks surrounding only the development.

These same types of issues have occurred throughout Missoula. I am well aware that Missoula must grow to prosper. I am in serious quandary what will become of traffic flow when the multiple, large condos are built out at W. Broadway and Russell with the already nightmarish issue of those going westbound on Broadway and trying to make left turn into McDonalds or to the existing inhabited condos. The only two access possibilities now are Broadway and perhaps at some point, Mullan. Also which is already a high-traffic road.

Sandrea Greene 4916 Rattlesnake Dr.

- Absolute primary safety issue is to properly maintain the existing infrastructure to include main as well as secondary corridors. The City of Missoula MUST learn to care for existing roadways and sidewalks prior to constructing additional infrastructure to care for. Existing road and sidewalk maintenance is an absolute disaster and a real danger to the taxpaying citizenry. We don't need more! City

of Missoula Street Maintenance Department is an absolute joke and a shame!
Ryan Kisling—homeowner 2505 Woodland Ave

- Many residents of the Rattlesnake moved here because of its rural feel and character. As more people have moved in there seems to be a push to “citify” the Rattlesnake with dense subdivisions, sidewalks and curbs and gutters. Many of us longtime residents are not in favor of this. If drivers expect cyclists and pedestrians to be in the street, they will keep their speeds low – with curbs and sidewalks speeds will increase. Also any loss or damage to our trees is unacceptable simply to install sidewalks and curbs. Keith Dustrud – homeowner 2336 Gilbert Ave. Missoula , Mt

Snow Management

- I do like the priorities list. I especially like the idea of plowing snow to the center rather than the edges. I know this has been an extremely snowy winter. The crews have not had much choice on where to put snow. I can understand that. I walk around to get my mail and paper because the plowing and the wind have made it difficult for me to dig out. It won't last much longer and it's better for me. Maxine Lane 2329 Rattlesnake Dr. 531-7336
- As for walking even to Powell St. from my house to walk to school has been impossible this winter, again because of the snow. I usually walk to school via Powell to Gilbert. Soon it will all melt and life will return to normal!!! Maxine Lane 2329 Rattlesnake Dr. 531-7336
- I was somewhat surprised to see this study published just now. This winter has destroyed many (if not all) the streets in the City let alone the Rattlesnake. And it's not just the streets. The sidewalks are spilling off the top layer of concrete. This is a mess that will take the City some time to prioritize and replace large lengths of the pavement. Everyone will want their streets prioritized high of course. I'm glad it's not me and grateful it's you who will have to be drawn into the listing of streets by importance. Wayne & Betsy Chamberlain 4140 Timberlane St
- I had a very scary incident a few days ago trying to safely pass a bicyclist going south (downhill) on Greenough next to the park just before the I-90 underpass. I was driving, and several cars were impatiently behind me. Snow was piled in the bike lane, so the bicyclist was in the middle of the south-bound lane. No-one was in the oncoming lane, so I pulled into it--just then a car appeared from under the highway. I hit my brakes cautiously, and the anti-lock brakes engaged, and I had a really hard time slowing down and pulling back into my lane. This points to 2 important things: 1) the bike lane there is too narrow (I think it is even narrower following the sidewalk construction, which I was very disappointed to see, and 2) it's not OK for snowplows to pile snow in the bike lanes (the new sidewalk there was also not plowed, so the bicyclist couldn't use it). This is a problem all over the city (I bike a lot during the winter, but have been afraid to

this winter with all the snow). Karin L. Riley Doctoral Candidate, Department of Geosciences, University of Montana, Missoula, MT 59812

- Bicycle lanes should always be paved as children need the stable surface. They should always be plowed in the winter too. Ginny Cass
- Sidewalks are helpful for pedestrians, but are often covered with snow in the winter. Snowplows are as responsible for leaving them covered as residents who don't or can't shovel them. When snowplows cover sidewalks and driveway entrances, they leave large piles of heavy snow which many of us older and handicapped folks can't deal with. I don't think there is a solution to this. My area has no sidewalks and residents enjoy walking (and sometimes skiing) in the side streets. I have the feeling that even with sidewalks, many people would still walk in the street. Ginny Cass

Speeding (ticketing/licensing)

- Lower MPH limit to 30 or 35 from 45mph?
- Speed limits: I still would like 25 miles per hour. People will still go thirty!
- Prove to me that bicyclists will be ticketed along with motorist if they ignore traffic laws and I will support your plan. How about a patrol officer that will ticket bicyclists that insist upon riding 2 or more abreast on narrow Lolo Street, or exiting Missoula avenue and immediately going to the opposite side of Lolo (riding against traffic) or turning left in the middle of the street to get to the other side, or running the stop sign at Lolo and Duncan because they don't want to wait for me to turn right. Suzan Olinger
- Why was the 35/25 mph transition on Greenough moved south a few years ago? Makes the intersection of Poggio and Greenough more problematic. Would like to see the transition moved back to north of Poggio. Notice that these improvements could be accomplished with very little budget. Holly Thompson
- Bicycles should always have lights for night use and this should be enforced! Also, bicycles that are seen running stop signs should be ticketed. Police who try to catch speeders on Rattlesnake Drive should also watch bicyclists for violations. Riders who do stop at stop signs will be safer; we need enforcement of these laws just as we need regulations about burning within the 3.5 mile area and smoking in public places for public health. Ginny Cass
- I am concerned about the change in the speed limits on the Rattlesnake Dr. when it passes Messiah Lutheran Church. It goes to 35 mph there at the first turn in and then to 45 mph at Cornerstone and beyond. I have had some close calls with folks in too big of a hurry. Can we address changing it to 30 mph till we are past these turns to the housing etc. Lots of kids get off the buses and walk along these areas. Thanks for considering this matter. Colleen D. Tuxbury-Tripp 1568 Cornerstone Dr. Msl, MT 59802
- I feel that cycling access in the Rattlesnake is very important and has been part of the charm of our community for years. However—as a cyclist and a motorist, I feel that I pay more as a motorist for the improvements. 1, cyclists used to have

to be registered and should now. 2, small children are a hazard on Arterial roads—particularly those on small cycles of 12 inches. They are very hard to see, they are not familiar with the rules of the road and a busy road is not the place to learn. Restrictions of size and age on Arterial roads would be wise and a license would help fund the improvements! Melody Blomgren—homeowner 620 Linden

- First 3 rules = 90% safety improvement
 - 1. Ice or Snow on streets--No bikes \$500 fine
 - 2. No bike trailers--\$200 fine (also would eliminate child brain injuries--shaking and jolting syndrome--small children)
 - 3. Strong strobe light front and after dark--\$500 fine
- All at very little cost to taxpayers, then look at trails, etc. Truly concerned.

Potholes

- Patch potholes correctly with torches and tamping. Don't just dump it.
- Pot holes! Need I say more? Ginny Cass

Size of Roadway

- Regarding the Table on page 30, what are the current state (or federal) regulations regarding road width and lane width for roads with traffic density in the Rattlesnake/Duncan?
- Don't make bike lanes so wide. Wider streets for cars make it safer for bikes.
- Stop making roundabouts. They help narrow roads and our roads should be wider.
- I drive a car to work, the grocery store and entertainment events I choose to attend. This will not change no matter how narrow you make the street. Without proper width of roadway to add bike lanes and sidewalks I will not support your transportation plan. Prove to me the streets won't get any narrower and I will support the plan. Suzan Olinger
- Simply put, there is no need for raised sidewalks, rumble strips, sidewalks, curbs and gutters, though in a few places, the shoulder could be a bit wider. Please don't urbanize our beloved Rattlesnake -- JUST LEAVE IT ALONE. Bob Knapp 4290 Wild Fox – owner

Dangerous Intersections

- Another dangerous area that is not shown on the map-intersection of Lolo and Rattlesnake; it has always been problematic (not a 90 degree angle, so poor visibility, and cars often accelerate on that part of Rattlesnake), but allowing installation of the fence and new trees at the new development makes it even worse. If that intersection is not straightened out, then property owners on both sides should be required to remove all obstructions to visibility-with higher standards for visibility than at minor intersections. Holly Thompson
- The other bad intersection is Lolo and Rattlesnake Dr. I have to pull way out because of the fence. I guess age makes me less able to turn my head. Please

share this with the committee. I am very appreciative of all the time and energy that went into the study and formulation of the results. Maxine Lane 2329 Rattlesnake Dr. 531-7336

- A soon-enough-to-be a dangerous intersection is the intersection at Lolo and Rattlesnake with ?????? 13 units surrounding the Lincoln School. In particular the corner lot at the Lolo/Rattlesnake stop sign. The too-high fence has already diminished vision of northbound Rattlesnake traffic for those making a left turn, but a house built on the corner would dangerously occlude vision. (did the planners who approved this development ever visit on-site what they were approving?!!! What a tasteless desecration of this historic building and surrounding grounds!!! The two units built to date are not even remotely architecturally in keeping with the old school!!!....with two more on the way!! So much for the Rattlesnake Valley entry sign!! "Welcome to the historic Rattlesnake Valley." It would have been far kinder and a little less offensive to have simply torn down the historic old school and allow the California developers to build a condo) Sandrea Greene 4916 Rattlesnake Dr.
- I would like to see a raised crosswalk, rumble strip or speed bump on Duncan Dr. at the intersection with Highland Dr. and Mountain View where the speed limit goes from 35 to 25. Because Duncan is such a straightaway, drivers often drive too fast especially as they head down the hill south towards town. Caroline Byrd—homeowner 2808 Highland Dr.

Miscellaneous

- What is the current status of the sewer system installation and how might that impact plans?
- How has the volume of vehicular traffic changed over the last 5-7 years and what are the implications for the future?
- In looking after the interests of cyclists and pedestrians, please don't forget that cars must use Rattlesnake too - and that Rattlesnake is the only exit from the Rattlesnake Valley in case of evacuation for forest fire etc. (Duncan can serve only as a limited secondary route for evacuation)
- How has the volume of the vehicular traffic changed over the last 4-5 years and what are the implications for the future?
- A suggestion – If you need volunteer efforts, think about UM students who access the Rattlesnake National Recreation Area. Perhaps you can engage UM students via professors and classes to help with studies, surveys etc. They have a vested interest in helping.
- Dear Dave, I'm sorry I couldn't make the meeting. A very huge thank you to everyone who worked on the committee and the end results. Also a wild life crossing sign-huge! There is a wildlife corridor between Lolo Street and the Lincoln Hills. We have had two does killed this year. The first one was just in front of the house across from Murray St. It didn't help the pu was going over 40. It sounded like he went thru my fence. Lucky for him he didn't. He went

on. Did come back later to pick up the pieces of his truck! Maxine Lane 2329 Rattlesnake Dr. 531-7336

- Susan Barmeyer: Hello - I am so sorry I had to miss the meeting last Sunday. Thank you for all the hard work you have done on this issue and for the great map you sent to all of us. The online report was also helpful.
- Of course, I have lots of opinions about transportation in the Rattlesnake but I'll try it keep it brief. I am a bus rider, an automobile driver, and an occasional pedestrian in the Rattlesnake. I think that our biggest challenge is to convince more people to use alternate forms of transportation. And I think the next biggest challenge is to manage in accordance with usage. Susan Barmeyer
- My impression of the priorities map is that the priorities have been compressed. Perhaps this is for political purposes, important not to seriously offend anyone, keep the whole community on board, not allowing funding agencies to get away with partial solutions. However, realistically, the differences in hazards are more extreme than indicated on the priorities map and given current funding environment, very critical to get the most important of these projects accomplished. Crisis Areas- based on narrow street and high traffic. 1. NW 1 Lolo street from the bridge west 2. SE 1,2 Van Buren-Rattlesnake up to Pineview. Holly Thompson
- Urgent Areas 3. NE 7 school immediate neighborhood 4. SW 2 Duncan South of Lolo, but the area should be extended all the way to where the sidewalk starts on Greenough (some bikers and pedestrians head over to the park ~ Alvina, but many stay on Duncan-Greenough Drive. Holly Thompson
- I do not follow the logic of equating Duncan north of Lolo (I drive/walk this every day-no sidewalks, but it is very broad, with plenty of room for cars, bikes and pedestrians to share the road), Lower Lincoln Hills and the soccer fields with the areas listed above. Holly Thomspon
- We've been on Greenbrier Drive for 28 years and I am a frequent recreational and commuting cyclist. I think your plan is fine and believe your priorities are appropriate. I do appreciate the good work you are doing. Marc Olson
- Developers should be aware that it is important to use the existing street name when extending a street that was platted in another development. Tamarack should have been extended this way but it wasn't. Ginny Cass
- As there is more development in the Rattlesnake valley, neighborhoods should be connected. Children have to walk in the street to visit others who live in another development. It would be much safer for them if there was a side street that connects neighborhoods, also it would be of help for fire department use, ambulance use, and school bus use. Ginny Cass
- I'm not able to attend the 2/27 meeting but I'd like to comment. I'm surprised that I rec'd. a notice for this meeting as I'm not a city resident, but I am a driver, not a walker, bike rider etc. because I am handicapped. I don't even ride the bus, as I have to walk a long (for me) distance to the nearest bus stop. My

husband rides the bus occasionally as he works part time at the public library. However, one or the other of us drives through the valley almost every day and our daughter drives to work M-F. Ginny Cass

- I believe the best use of funds for the benefit of the greatest number of people would be to have wide shoulders and bike/pedestrian lanes the entire length of the main corridors. There are stretches of these roads that have NO or little shoulder! Very dangerous. . Heather Robb—homeowner 1524 Tamarack Street
- The modification of the turn (curve) at Lolo and Missoula Ave. is, or rather, was poorly designed. This curve needs to be wider as on several occasions I and other motorists have had to wait before executing the curve as it is not wide enough for two vehicles to pass through going in opposite directions. It is ridiculously narrow. Aprille Hammond—homeowner 2324 Wylie Avenue
- Lived here over 40 years – Great! But you gotta install sidewalks on Lolo, west of Bridge (Between bridge and Duncan). Very narrow curved road with no place to walk – very treacherous! William C Fischer 2307 Gilbert, Missoula 59802

Appendix K: Minutes of the Combined Upper and Lower Rattlesnake Neighborhood Councils

April 21, 2001

Rattlesnake Elementary School Gymnasium

The meeting was noticed by postcards, neighborhood liaison electronic noticing and signboards supplied by Doug Grimm.

6:30 – 7:00 The Upper Rattlesnake Neighborhood Council held Leadership Team and Community Forum representative elections. Elected were:

Mick Owens – Co-chair Leadership Team

Emily Plant – Co-chair Leadership Team

Susan Snetsinger – Community Forum representative and Leadership Team

Bob Luceno – Leadership Team

Doug Grimm – Leadership Team

Rhonda Holle - Leadership Team

Ice cream sandwiches were served.

7:00 – 8:30 Joint meeting with Upper and Lower Rattlesnake Neighborhood Council members and guests.

Comments not on the agenda were asked for.

- * Jeanne Joclyn passed out handouts regarding her efforts to “Save Prescott School.”

- * It was pointed out that numerous garbage cans were left out very early in the morning due to new pickup times. Councilman Jason Weiner said he would look into it. Bears and garbage have been a frequent problem situation, sometimes leading to removal of the bears. Harold Hoem suggested that the Leadership Team contact Jamie Jonkel of Fish Wildlife and Parks to give a future presentation.

- * Scott Reid, Operations Manager for the School District, urged people to get their ballots on the upcoming levy election in the mail. Jason Weiner also asked people to get out and vote.

Transportation. Harold Hoem acted as the moderator. He gave an update on the Transportation Summit Study, which was discussed at length at a previous joint neighborhood council meeting. He mentioned that they were trying to keep the momentum going to achieve safer transportation along our major corridors for pedestrians, cyclists and motorists. He stressed that this is not about increasing capacities of the roadway, but was about providing a safer transportation environment. Referencing *The American Association of State Highway and Transportation Officials: A Policy on Geometric Design of Highways and Streets*, he mentioned the community benefits of sidewalks and noted that the city is responsible for safe travel and does have the authority to order in sidewalks.

Hoem summarized numerous comments that had been submitted as a result of the Transportation Study. A summary was handed out to the attendees. There were many comments about bicycle/vehicle interactions. He said that we had all seen unpredictable behavior by bicyclists,

drivers and pedestrians. Several comments dealt with the narrow nature of the roads, considering the width of buses and trucks and the unplowed shoulders in the winter. A full list of comments will be made available shortly.

Doug Harby, Project Manager for Public Works, gave a presentation regarding Van Buren Street. He said this last winter had produced 57 freeze-thaw cycles, far more than normal, and raised havoc with the road surface. He said that work would be under way next week to mill and re-surface Van Buren. Preliminary studies have been done to do a real re-make of that roadway and sidewalk area. He discussed the complexities involved in elevation, drainage and existing utilities. Regarding the width of roads, Harby acknowledged that buses would prefer 14 feet instead of ten feet, and the width of the vehicle and mirrors do take up almost the entire ten-foot width of the roadway. (Carol Elsen from Lower Rattlesnake Neighborhood Council Leadership Team asked how long since the street had been resurfaced. Answer: at least 25 years.)

Doug also discussed how work was progressing on the west side of Lolo Street and expected work to be done on the south side of the street soon. This has involved lots of discussions regarding easements. The bridge over Rattlesnake Creek was brought up by several citizens who were concerned about safety, speeds, unmarked center lines and drivers crossing into oncoming lanes. It was pointed out by several people what a complicated place that was for cyclists, drivers and pedestrians, especially with the proximity to Missoula Avenue, a one-way street, on which bicyclists are allowed to ride either direction.

Doug also discussed potholes, as noted above, and bulbouts. It was pointed out to him that the bulbouts near the school had received universal criticism since they were put in. He said they were re-thinking these and trying to come up with another way to make crossing safer.

Scott Reid from the School District discussed the area around the soccer fields and said that the school recognized the dangerous conditions on the south side of the soccer fields. They were trying to find ways to improve parking. The school had tried to accommodate neighbors by carefully scheduling events. They were considering a pathway on the east side of the soccer fields. Scott Reid had discussed this project with Harold Hoem earlier, as it was part of a feasibility study.

Doug Harby described work done on a feasibility study that considered the area around the soccer fields as well as Rattlesnake Drive up to Tamarack Street. This study was done as part of a large grant project from the Community Forum. Caroline Lonski, Don Sims and Mary Louise Zapp-Knapp had worked on this. Hoem mentioned that earlier public comment had suggested studying the east side of Rattlesnake Drive rather than the west side covered by the feasibility study. It was mentioned that any work done by the schools could affect the numbers and costs of this project. Also, a crossing was considered at the 90 degree turn on Rattlesnake near the Cornerstone Subdivision.

Additional Comments: Carol Elsen praised Doug Harby for work he had done on maps, often on his own time. Doug Harby thanked the Transportation Summit for all the work they had done, which is a big help for the city and in moving projects forward. Jan Hoem said that the Lower Rattlesnake Neighborhood Council installation of an electric speed monitor improved safety on Van Buren. Doug Harby said discussions on funding sources and assistance was a top city priority. Emily Plant

wondered why there was a 45 mph speed limit (too high) by Cornerstone. Harold said they could ask the city to revisit that.

The meeting was adjourned at 8:35.