AGENDA
CITY OF LAUREL
CITY/COUNTY PLANNING BOARD
WEDNESDAY, OCTOBER 18, 2023
6:00 PM
CITY COUNCIL CHAMBERS

Public Input: *Citizens may address the committee regarding any item of business that is not on the agenda. The duration for an individual speaking under Public Input is limited to three minutes. While all comments are welcome, the committee will not take action on any item not on the agenda.*

1. The Public Is welcome to comment on any item not on the agenda tonight. Comments on items on the agenda or at the Public Hearing should be saved for that item to be presented

General Items

2. Approve Minutes from previous meetings
3. Public Hearing for Lazy KU subdivision 2nd Filing

New Business

4. Approval to send preliminary plat to the Yellowstone County Commissioners for consideration

Old Business

5. Zoning Update
6. Update on the work sessions for growth management plan for City-County Laurel Yellowstone Growth Management Plan

Other Items

Announcements

The City makes reasonable accommodations for any known disability that may interfere with a person's ability to participate in this meeting. Persons needing accommodation must notify the City Clerk's Office to make needed arrangements. To make your request known, please call 406-628-7431, Ext. 2, or write to City Clerk, PO Box 10, Laurel, MT 59044, or present your request at City Hall, 115 West First Street, Laurel, Montana.

DATES TO REMEMBER

File Attachments for Item:

3. Public Hearing for Lazy KU subdivision 2nd Filing

APPENDIX E

Preliminary Plat Application

Subdivision Name: Lazy KU Subdivision, 2nd Filing

Date of Preapplication Meeting: June 22, 2023

Type: Major __X__ First Minor _____ Subsequent Minor _____

Tax Code: D00239D

Location: S 72nd Street W and Danford Road

Legal Description: Tract 5 Certificate of Survey No. 2301 and Lot 1 and Lot 12 of Lazy KU Subdivision

¼ Section: __SE__, Township: __01S__, Range: __24E__

General Location: northwest of the intersection of S 72nd Street W and Danford Road

Subdivider Information:

Name (Include a list of officers if corporation):

Owner: Cherryl Ann Kramer Revocable Trust - Cherryl Ann Kramer, Trustee

Address: 3116 S. 72nd Street W, Billings, MT 59106

Telephone: 406-690-4537 E-mail: cherrylkramer@gmail.com

Developer: Jerry Krushensky

Address: PO Box 81508, Billings, MT 59108

Telephone: 406-581-0658 E-mail: jdwineridge@aol.com

Owner Information:

Name: Same as above

Plat Data:

Gross Area: 51 acres

Net Area: 44.59 acres

Number of Lots: 32 (31 residential lots and 1 remainder lot with sanitary restrictions)

Maximum Lot Size: 5.89 acres

Minimum Lot Size: 1 acre

Linear Feet of Streets: 3873 lft

Existing Zoning: n/a

Surrounding Zoning: n/a

North: n/a

South: n/a

East: n/a

West: n/a

Existing Land Use: agriculture

Proposed Land Use: residential

Parkland Requirement:

Land: __X___ Acres: _1.27___

Cash: _____ Cash: $ _____

Variances Requested (list and attach Variance Request):

1. none

2.

3.

Service Providers for Proposed Subdivision

Gas: MDU

Electric: NWE

Telephone: Spectrum

School (Elementary, Middle, High): Laurel/Laurel/Laurel

Irrigation District: none

Cable Television: Spectrum

List of Materials Submitted with Application

1. Plat
2. Subdivision Improvements Agreement
3. Environmental Assessment
4. Letter requesting expansion of existing RSIDs
5. Names and addresses of surrounding landowners
6. Site Layout with proposed improvements
7. Test Pit data of soil conditions
8. Memo

Agent Information

Name: WWC Engineering, Aaron Redland

Address: 550 S. 24th Street W, Ste. 201, Billings, MT 59102

Telephone: 406-894-2210 (o) / 406-671-5606 (c)

I declare that I am the owner of record of the above-described property, and have examined all statements and information contained herein, and all attached exhibits, and to the best of my knowledge and belief, is true and correct.

Cherry Ann Kramer

Owner of Record, Date

Owner Under Contract, Date

The submission of a preliminary plat application constitutes a grant of permission by the subdivider to enter the subject property.

(Ord. 07-01 (part), 2007)

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Introduction

This Environmental Assessment (EA) has been prepared for Lazy KU Subdivision, 2nd Filing (the Project) and is required per Section 76-3-603 in the Montana Code Annotated (MCA). This EA addresses the undeveloped portion of the Subdivision and has been prepared per Chapter 9 of the 2019 Amended Yellowstone County Subdivision Regulations. The EA will be provided with the submittal of the applicable preliminary plat and has been prepared per the Yellowstone County Subdivision Regulations and follows the general format of Chapter 9 within the Regulations.

Location

The Project is situated in the southeast quarter of Section 25, Township 1S, Range 24E in Yellowstone County, Montana. The site is generally located approximately 4 miles west of the Billings city limits. The Project is generally bound by unplatted property to the north; with Lazy KU Subdivision and 72nd Street east of the Project; Burlington Northern and Santa Fe (BNSF) Railroad tracks to the west; and Danford Road to the south.

Description of Property

The total Project area is approximately 51 acres. Approximately 5.14 acres is proposed to be dedicated as right-of-way, 1.27 acres to parkland, and the remaining 44.59 acres will be developed into 32 lots (31 residential lots and 1 lot will have sanitary restrictions) with a minimum size of 1 acre and a maximum size of 5.89 acres.

Environmental Description

A. Surface Water

1 - 4. An upper private portion of the Danford Ditch is the only surface water located on the Project and has been identified on the plat. The Danford Ditch is an irrigation drainage ditch that is approximately 4 feet deep and 15 feet wide. It generally flows seasonally between April and October of each year. The canal will be protected by an existing easement. No bank alterations are proposed with this subdivision. The portion of the Danford Ditch within the property is private and the portion that is maintained via a Board of Directors is further east from the property.

5. The following water quality permits will be required: SWPPP

B. Groundwater

1. Based on test pit data and groundwater monitoring performed in 2021, shallow groundwater has been identified on portions of the Project. Per Circular DEQ 4, Section 2.2.2.2, a minimum of 4 feet of natural soil separation from the bottom of the drainfield to the seasonally high groundwater level must be observed at each drainfield location.

Shallow groundwater is present in areas of the property lots requiring alteration of MDEQ drainfield designs.

Monitoring wells were installed in April 2023 and are being monitored from April 21, 2023 to present. With Lazy KU Subdivision, 1st Filing, monitoring showed the seasonal high groundwater to be between 5.5 and 8.0 feet below the ground surface across the subdivision, typically peaking around late October to early November in irrigation impacted locations. That is anticipated to be the same outcome with this subdivision.

Water for domestic use will be via individual wells. A beneficial water use permit will be obtained from DNRC for water use within this subdivision.

2. The proposed subdivision will be designed to meet MDEQ permitting requirements, to avoid the degradation of groundwater and groundwater recharge areas.

C. Geology/Soils/Slopes

1 - 4.

According to the USGA National Geologic Map Database, https://ngmdb.usgs.gov, this subdivision area is within the gravel geology which means there are variable deposits that range from pebble to boulder size and include sand, silt, and clay. Dominantly alluvial terrace, abandoned channel and floodplain, remnant alluvial fan, and local glacial outwash.

There are no geologic hazards, such as rock falls or slides; land, mud, or snow slides; high water table, unstable or expansive soil conditions, or slopes greater than twenty-five percent (25%) within the area of this subdivision.

Table 1 includes a review of the Web Soil Survey (WSS) information from the United States Department of Agriculture (USDA), Natural Resource and Conservation Service (NRCS) on January 27, 2021 for the Project which includes the soil limitations for sanitary facilities (septic tank absorption fields), building site development (dwellings with basements), roads (local roads and streets), and water features (hydrologic group) for each soil type.

D. Vegetation

1 - 2. According to the Natural Heritage Map Viewer (http://mtnhp.org/), most of the project is located in an agricultural cultivated area. There are some trees and other vegetation located along portions of Danford Ditch. A Dryland Prairie seed mix may be used in the park area and applied by either broadcast or drill method.

E. Wildlife

1 - 3. According to the Natural Heritage Map Viewer (http://mtnhp.org/), there were no species of concern documented in or adjacent to the Project area. The Montana Sage Grouse Habitat Conservation Map (https://sagegrouse.mt.gov/ProgramMap) identified that the Project is not located in or adjacent to a sage grouse conservation area.

The United States Fish and Wildlife (USFWS) Information for Planning and Consultation (IPaC) website (https://ecos.fws.gov/ipac/) identified that "there are no endangered species expected to occur at this location."

Table 1 Soil Limitations (USDA, NRCS Web Soil Survey information)

Map Symbol and Soil Name	Dwellings with basements	Local Roads and Streets	Septic tank absorption fields	Hydrologic Group
Bm – Bew	Very limited Shrink-swell	Very limited shrink-swell low strength	Very limited slow water movement	C (slow infiltration rate when thoroughly wet)
Ke - Keiser	Not limited	Very limited Low strength Frost action	Very limited slow water movement	C (slow infiltration rate when thoroughly wet)
Kl - Kyle	Very limited Shrink-swell	Very limited shrink-swell low strength	Very limited slow water movement	D (very slow infiltration rate; high runoff potential; when thoroughly wet)
Lr - Lohmiller	Somewhat limited shrink-swell	Very limited shrink-swell Low strength	Very limited Slow water movement	C (slow infiltration rate when thoroughly wet)
Ls - Lomiller	Very limited, flooding	Very limited shrink-swell Low	Very limited slow water movement	C (slow infiltration rate when thoroughly wet)

Map Symbol and Soil Name	Dwellings with basements	Local Roads and Streets	Septic tank absorption fields	Hydrologic Group
	shrink-swell depth to saturated zone	strength Flooding	Depth to saturated zone Flooding	
Te - Toluca	Not limited	Somewhat limited Frost action	Somewhat limited Slow water movement	B (moderate infiltration rate when thoroughly wet)
Va – Vananda	Very limited Shrink-swell	Very limited Shrink-swell Low strength	Very limited Slow water movement	D (very slow infiltration rate; high runoff potential; when thoroughly wet)

Community Impact

A. Impact on Agriculture / Agricultural Water User Facilities

1 - 4. The property is currently being used for crop production. Land uses within the immediate vicinity of the proposed subdivision include agricultural and residential uses.

A private portion of Danford Ditch is located along the perimeter of the Subdivision and appropriate easements will be maintained.

B. Impact on Local Services and Public Health and Safety

Water Supply

A – F. Connection to a public system is not proposed at this time. Individual wells are proposed for the 31 residential lots, and will be installed at the expense of the lot owner.

Water for fire protection will be provided in accordance with the Laurel Fire Service Area (Laurel FSA) requirements. There was a dry hydrant installed with the previously filed subdivision and dedicated for fire use within the subdivision.

This subdivision will require approximately 180 gallons per day per three-bedroom home based on statistics from the 2000 census and the American Water Works Association (AWWA). There are 31 lots proposed under the coverage of this EA. Therefore, approximately 5,580 gallons per day will be required the subdivision for domestic uses, not including irrigation usage.

Sewage Disposal

A - E. The proposed method of sewage disposal is through septic systems (individual systems). Per the MDEQ Circular DEQ 4, Montana Standards for Subsurface Wastewater Treatment Systems, the design standard is 300 gallons per day of effluent will be produced by each three-bedroom home. There are 31 lots proposed as part of this EA, therefore assuming a three-bedroom home is built on each lot; approximately 9,300 gallons of effluent will be produced by this portion of the subdivision each day.

These systems will be designed in accordance with applicable rules and regulations. The on-site wastewater systems will require approval by the Montana Department of Environmental Quality (MDEQ) and the local health department prior to approval of the final plat. The site plan indicates the location and specifications of proposed septic systems.

Solid Waste Disposal

A – C. Republic Services and MacKenzie Disposal, Inc. currently offer waste collection services in the area. Solid waste is disposed of at the Billings Regional Landfill operated by the City of Billings. According to the Billings Regional Landfill website (http://ci.billings.mt.us/2551/Landfill), if the landfill continues to receive the same amount of waste it will be full in approximately 50 years. The MDEQ recognizes the Billings Regional Landfill as a permitted solid waste disposal facility.

Stormwater

A – B. The amount of stormwater run-off that will be generated by the Project is to remain unchanged from pre-development discharge to meet DEQ stormwater design standards. The proposed storm water collection and drainage systems will be designed to satisfy the standards set forth by DEQ.

Roads

A – J. The portion of the subdivision covered by this EA will require the construction of roads that will be paved to county standards. The design and construction of new roads will be reviewed and approved by the Yellowstone County Public Works Department. Roads will be designed to prevent water pollution and erosion. Dust control will be provided as needed during construction.

Utilities

A – C. There is currently an overhead power line and a fiber optic line along 72nd Street West. Utilities were installed to service the lots within the previously filed subdivision near the eastern border of this subdivision. Utility easements would be maintained as required. The preliminary plat will be submitted to affected utilities for review.

The following utilities will serve the subdivision and currently offer services on the developed portion of the subdivision:

-NorthWestern Energy for electricity

-Montana Dakota Utilities for gas

Utility installation will progress as required by development and would be installed prior to surface implementation.

Emergency Services

A – E. Emergency services available to the subdivision include the following:

- Laurel Volunteer Fire Department (subdivision is located within the Laurel Fire Service Area according to the Yellowstone County Interactive Mapping)

- Yellowstone County Sheriff's Department

- Ambulance service will be provided by the City of Laurel. American Medical Response (AMR) in Billings is the secondary response in the event that the City of Laurel cannot respond. Transports are made to Billings Hospitals.

According to the Bureau of Justice, in 2011, an estimated 1 in 8 U.S. residents age 16 or older, or 31.4 million persons, requested assistance from police at least once, most commonly to report a crime, suspicious activity, or neighborhood disturbance (https://www.bjs.gov/index.cfm?ty=pbdetail&iid=4780).

According to the National Fire Protection Agency (NFPA), in 2021 there were 36,627,000 calls made to fire department with 1,353,500 of the calls being a fire in the United States (https://www.nfpa.org/News-and-Research/Data-research-and-tools/Emergency-Responders/Fire-department-calls).

According to the National Association of State EMS Officials (NASEMSO), in 2021 there were an estimated 43,488,767 EMS events (responses) in the U.S., resulting in approximately 19,533,036 transports (https://www.ems.gov/pdf/811723-National-EMS-Assessment-2011.pdf.)

Based on the previous data it would be conservative to estimate that 25% of the proposed households (31 lots) will require one emergency response per year; resulting in approximately 8 responses per year.

As identified on Department of Natural Resources & Conservation (MDNRC) Wildland Urban Interface (WUI) Map of Yellowstone County the proposed subdivision is located in a WUI area (https://leg.mt.gov/content/Services%20Division/Lepo/statreports/wildland-urban-parcels/2012-wildland-urban-parcels.pdf).

Schools

A – C. According to the Yellowstone County Interactive Mapping tool, the subdivision is served by Laurel for elementary, middle school, high school.

Census data from 2017-2021 indicates that there were 2.41 people per household in Montana. Population estimates in July, 2022, indicate that Montana had a population of 1,122,867 with 20.8% under 18 years. A conservative estimate would be 0.5 child per household or approximately 16 total children.

Parks and Recreation Facilities

A – B. A 1.27 park will be dedicated with this subdivision.

C. Land Use

1 – 4. The proposed subdivision is located in an unzoned area within Yellowstone County.

The subdivision is not anticipated to impact access to public lands and complements existing adjacent land uses (agricultural and residential subdivisions). Based on existing and known proposed land uses, nuisances such as unpleasant odors, dust, and smoke are not expected. The use of an adjacent BNSF line is expected to generate noise when being used.

D. Historical Features

WWC contacted Mr. Murdo on January 28, 2021 and requested a file search for the overall property of Lazy KU Subdivison, including this portion of the project. No changes have occurred since that timeframe to the portion of the property that encompasses this subdivision. Mr. Murdo conducted a cultural resource file search on January 28, 2021 and identified “Site 24YL0664”, the Historic Irrigation System, Danford Ditch, within the proposed project area. He states that it is SHPO’s position that any structure over fifty years of age is considered historic and is potentially eligible for listing on the National Register of Historic Places. If structures are to be altered and are over fifty years old, we would recommend that they be recorded and a determination of their eligibility be made. Mr. Murdo stated that the “absence” of cultural properties in the area does not mean that they do not exist but rather may reflect the absence of any previous cultural resource inventory in the area, as our records indicated none. Based on the lack of previous inventory and the ground disturbance required by this undertaking Mr. Murdo feels that this project has the potential to impact cultural properties and therefore, recommends that a cultural resource inventory be conducted in order to determine whether or not sites exist and if they will be impacted; and

stated that it is ultimately up to the County whether or not a cultural resource inventory needs to be conducted or not.

E. Visual Impact

1 - 3. The land being developed for this subdivision has been used for agricultural purposes for many years. With the growth of Yellowstone County consistently moving west, this subdivision will stay with the trend of the direction of the growth.

Summary of Probable Impacts

A. Description of Project Effects

1. Agriculture

The land in the proposed subdivision is being utilized for agricultural use.

2. Agricultural water user facilities

There are no definitive plans for connecting to agricultural irrigation.

3. Local Services

There appears to be adequate available local services to service the proposed subdivision (increase in lots/residences).

4. The natural environment

The high-water table was considered during siting and design. Proper siting and design is believed to adequately protect water quality.

5. Wildlife and wildlife habitat

There are no known protected species or special status habitats within the proposed subdivision.

6. Public health and safety

Proper siting and design is believed to adequately protect public health and safety.

B. Description of Compliance

Survey Requirements Provided in Part 4 of the Montana Subdivision and Plating Act (MSPA)

The application submittal process is consistent with the MSPA and a review is required.

Subdivision Regulations

This EA and associated plat have been prepared per the Laurel Subdivision Regulations.

Subdivision Review Process as described in Chapter 3 of the Subdivision Regulations

This EA is to be provided with the “Preliminary Plat Application”. The proposed subdivision is believed to be consistent with the adopted Growth Policy and Transportation Plan.

C. Description of Utilities and Related Easements

Fiber optic and overhead power lines are located at the eastern border of the subdivision and will be protected in an easement. Natural gas and electric lines are located at the western and northwestern border of the subdivision. Storm drainage easements are also provided in multiple places throughout the subdivision. The plat will identify required utility easements.

D. Description of Legal and Physical Lot Access (Notation of Access Required on Plat)

Each lot has been provided with legal and physical access as identified on the plat.

References

Billings School District. https://www.croppermap.com/billings/.

Bureau of Justice Statistics. https://www.bjs.gov/.

City of Billings. 2018. Landfill webpage, https://www.billingsmtpublicworks.gov/236/Billings-Regional-Landfill.

Montana Department of Environmental Quality. 2013. Circular DEQ 4, Montana Standards for Subsurface Wastewater Treatment Systems.

Montana Department of Natural Resources & Conservation. 2011. https://leg.mt.gov/content/Services%20Division/Lepo/statreports/wildland-urban-parcels/2012-wildland-urban-parcels.pdf

National Fire Protection Agency. 2015. https://www.nfpa.org/News-and-Research/Data-research-and-tools/Emergency-Responders/Fire-department-calls.

Yellowstone County Interactive Mapping database. https://maps.co.yellowstone.mt.gov/mapping/index.html.

United States Census Bureau. 2019 https://www.census.gov/quickfacts/MT

CITY HALL
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City Of Laurel

P.O. Box 10
Laurel, Montana 59044

Office of the Planning Director

September 13, 2023

Aaron Redland
Project Manager
WWC Engineering
550 S. 24th Street W, Suite 201
Billings, MT 59102

Regarding the Element Review of the submitted documents for the Lazy KU 2nd Filing Subdivision Application

Ms. Redland,

Below are listed the results of the element review by city staff on the Major Subdivision submitted by your office and payment received late in the day on **September 7th, 2023,** as per LMC. Chapter 16, Appendix F: Required Supporting Documents for Major Preliminary Plat Applications.

1. Names and Addresses of Immediately Adjoining Property Owners typed or neatly printed on Address Labels – *Included*
2. Draft Subdivision Improvements Agreement – *Included.*
3. Environmental Assessment or Summary of Probably Impacts, when applicable. – *Included.*
4. Traffic Accessibility Study (TAS) when applicable. – *Included*
5. Preliminary Water and Sanitation Information – *Included. Is there a mixing zone identified?*
6. Geotechnical Report – *Included*
7. Draft Protective and restrictive covenants, if any. – *Included.*
8. Draft Articles of Incorporation when Homeowner's Association is proposed. – *Not Included.* – Not proposed
9. When a tract of land is to be subdivided in separate filings, a Master Plan of the Entire area to be developed. – *Not Included.- Indicated that the area has high ground water and is not suitable for future expansion at this time.*

I will start the routing of the elements for review. I will send out a sufficiency letter within the next couple of weeks not to exceed 15 working days.

Regards,

Kurt Markegard
Planning Director

DECLARATION OF COVENANTS
FOR LAZY KU SUBDIVISION, SECOND FILING

On this ___ day of _____, 2023, DEVELOPMENT CORPORATION, (Developer), being the owner of the following described real property and all portions thereof, located in Yellowstone County, Montana, hereby subject said property to the Conditions, Covenants, and Restrictions herein, and declare the following building and use restrictions all of which shall be applicable to said real property:

[Description of Lots]

of Plat of Lazy KU Subdivision, Second Filing, Yellowstone County, Montana, according to the official plat thereof on file and of record in the office of said County, under Document No. _____

These Conditions, Covenants and Restrictions will run with the land and shall be binding upon the present owners, and all subsequent grantees of any portion of any area included within the aforesaid legal description as set forth herein. The immediate grantors and all future grantees, (Owner), their heirs and assigns forever of any portion of said property, covenant and agree by the acceptance of a conveyance, to faithfully observe and comply with said Conditions, Covenants, and Restrictions.

RESIDENTIAL USE RESTRICTIONS AND EASEMENTS

All lots shall be improved and used solely for single-family residential use and shall have no more than one residential unit therein. This single-family residential use shall be understood to permit one (1) Accessary Dwelling Unit (ADU) per lot, provided the ADU is in accordance with all governing laws, regulations, and ordinances, and provided further that any detached ADU shall be no greater than 1,100 square feet, and otherwise conforms to all pertinent restrictions contained herein. No lot or dwelling shall be used or caused to be used or allowed or authorized to be used in any way, directly or indirectly, for any commercial, short-term rental, manufacturing, mercantile, storage, vending, or other such non-residential purposes, except:

(a) Developer and Participating Builder, their successors, and assigns, may use any portion of the development owned by them for a model home site, display and sales office during the construction and sales period.
(b) Also, the provisions of this section (Single Family Residential Use) shall not preclude professional, administrative occupations without external evidence thereof, and may have a home office so long as the use does

not generate regular traffic and so long as such occupations are conducted in conformance with all applicable governmental ordinances and are merely incidental to the use of the lot as a residence.

Each primary dwelling shall be constructed so that the floor area enclosed within the perimeter of the exterior walls, exclusive of the basement, if any, shall not be less than:

1. 1,250 square feet on the main level of a one-story ranch style or split entry house.
2. 1,200 square feet on the main level and 500 square feet on the upper level of a two-story house.
3. 1,800 square feet on the lower 3 levels of a multi-level with a minimum cross-sectional area at ground level of 1,580 square feet including the garage.

Each primary dwelling shall have at least a double garage with an enclosed floor area within the perimeter of its exterior of not less than 480 square feet. Each lot may have one additional detached outbuilding, not to exceed 2000 square feet and one additional storage shed, not to exceed 200 square feet. The detached buildings shall not exceed fifteen (15) feet at the eves. The detached structure shall be complimentary to the main structure. The detached structures shall not preclude the additional construction of a playhouse or play structure for children, or a garden greenhouse, so long as that each is constructed in such a manner as to reasonably conform with the house on the lot.

All structures shall have an exterior surface of natural wood, synthetic wood, stone, brick, stucco, or a combination thereof. Other materials may be used for exterior walls provided that such materials are designed and located in harmony with the surrounding structures and natural landscape. No building or structure shall be erected, placed, constructed, or remodeled so as to be less than twenty-five (25) feet from the front lot line, less than ten (10) feet from the side lot line or less than twenty (20) feet from the rear lot line, except that corner lots shall have a twenty (20) foot setback requirement from the side lot line contiguous to courts or roads.

No residential lot shall be subdivided in any manner. Two (2) or more continuous lots, if owned by the same record owner, may be combined as one lot for the purpose of applying these Covenants by the record owner making such election in writing and duly recording the same with the Clerk and Recorder's Office, Yellowstone County, Montana, and thereafter such combined lots shall be treated as one for the purpose of applying these Covenants; any such combinations of lots shall have a lot line set-back requirement of thirty (30)

feet from the side lines of the combined lot area.

Each lot owner is required to submit building plans to Developer or its successors as seller, for its review and approval solely as to compliance with these Covenants, which shall themselves be interpreted neutrally. Construction may not start until approval has been given in writing, and such decision may not be unreasonably withheld or delayed.

All construction on or in the premises shall be commenced within thirty (30) days after equipment and/or materials used in the construction thereof are moved onto the sight and shall be diligently pursued to completion and shall in any event be completed within twelve (12) months of commencement.

The dwelling must be completed inside and outside before it can be occupied, and no structure shall be used as a temporary residence during construction.

All primary dwellings on said lots shall be of new construction and of wood or steel frame constructed on site. No modular, manufactured, mobile, or otherwise pre-constructed homes will be permitted.

No projections of any type (excluding satellite or high-speed internet) shall be placed or permitted to remain above the roof of any building within the development, except chimneys or vent stacks. Satellite or internet projections shall be of a minimum height.

Fences shall be maintained so they will not be unsightly or detrimental in appearance and shall be not greater than six (6) feet in height. Fences may be constructed of metal, vinyl, or wood. Barbed wire fencing of any variety is not permitted.

All utility cables and wires shall be installed underground and no radio, short wave, CB, or any other tower shall be erected on any lot. Each owner of a lot or lots shall, within a period of eighteen (18) months after the occupancy of a dwelling, provide grass and/or other appropriate landscape cover over all areas of the lot or lots and shall thereafter maintain the landscaping on his lot in a neat and attractive condition. This includes the removal of noxious weeds in accordance with county weed control standards and the proper disposal of trash and waste. Each owner of a lot or lots shall maintain unimproved lot areas such that the vegetation does not exceed a maximum height of twelve (12) inches.

Reasonable steps shall be taken to conceal garbage containers from view except when garbage pickup is scheduled. No rubbish or debris of any kind shall be placed or permitted to accumulate

anywhere within the development, and no odor shall be permitted to arise therefrom so as to render the development or any portion thereof unsanitary, unsightly, or offensive.

No motorcycles, dirt bikes, or other mechanized vehicles may be operated upon any trails or park areas. Nothing contained herein shall be deemed to prevent Developer or any participating builder from using heavy equipment, tools, or other devices for completion of the development.

No swine, horses, or cows shall be raised, bred, or kept on any lot within the development, with a maximum of six (6) laying hens allowed. Roosters are prohibited. A reasonable number of dogs, cats, or other household pets may be kept, provided that they are not bred and/or maintained for any commercial purpose and are not kept in unreasonable quantities so as to be in violation of any applicable local ordinance.

Burlington Northern Santa Fe Railroad (BNSF) Proximity: Land in proximity to the northern boundary of the Lazy KU Sudivision, Second Filing, is a right of way owned by the railroad, upon which they actively operate a transportation business. The noise from moving trains is clearly audible in the LAZY KU Subdivision, Second Filing. This activity is protected by state law and can be expected to continue indefinitely.

Developer, for itself, and all successor owners of property within the Lazy KU Subdivision, Second Filing, hereby waives any right to object or else protest the noise created by the normal operation of trains running along the railway, acknowledges that the railroad right-of-way is private property, and further acknowledges that Lazy KU Subdivision, Second Filing, and successor owners of lots within said subdivision have an affirmative duty to stay clear of BNSF property, and to take reasonable steps to keep children, guests, invitees, and licensees clear of the property.

Each lot shall be subject to all easements and rights-of-way of record. Installation for all utility lines including, but not limited to water, sewer, power, cable television and telephone shall be underground.

No owner shall park or keep on any street within the development any large commercial-type vehicle or any recreational vehicle or equipment. All trailers, campers, motorhomes, yard equipment, and similar vehicles shall be stored behind the front elevation of the dwelling. The above restrictions exclude pickups, vans, and similar vehicles up to and including one and one-half ton trucks when used for everyday transportation.

No signs, billboards or advertising devices of any kind, except those used in the sale of the property, shall be placed or otherwise installed on any lot or other building.

Satellite dish receivers shall not exceed thirty-six (36) inches in diameter. No improvement anywhere within the development will be permitted to fall into disrepair, and each improvement shall at all times be kept in good condition and repair.

There shall be no interference with the established draining pattern over any lot as to affect any other lot, unless an adequate alternative provision is made for proper draining. For the purpose hereof, "established drainage" is defined as the drainage, which exists at the time the lot is conveyed to an owner or a participating builder.

Once Developer has divested itself of ownership of all the lots within the subdivision, any provision herein may be amended or revoked at any time by written instrument duly signed and acknowledged by the owner of record of not less than eighty (80) percent of the parcels covered under these Conditions, Covenants and Restrictions as described in the legal description on page 1 herein.

These Conditions, Covenants and Restrictions shall remain and exist on all the described real property for a period of not less than twenty (20) years and may be extended for another twenty (20) years by eighty (80) percent of the owners of record at that time.

RIGHT TO ENFORCE

The Conditions, Covenants and Restrictions herein set forth shall run with the land and bind the present owners, their heirs, devisees, trustees, grantees, and all other parties claiming by, through, or under them, to conform and observe said restrictions as to the use of said lots, and the construction of improvements thereon. No Conditions, Covenants and Restrictions herein set forth shall be personally binding upon any corporation, person, or persons, except to breaches committed during its or their seizing of or title to said lands. The owner or owners of any of the above-described lands shall have the right to sue for breach of, or to enforce the observation of the Conditions, Covenants and Restrictions set forth above, in addition to ordinary legal action for damages. The failure of the present owners, or the owner of any other lot, in the above-described subdivision, to enforce the Conditions, Covenants and Restrictions herein set forth at the time of any violation thereof, shall in no event be deemed a waiver of the right to do so. The grantees of any lot by the acceptance of a conveyance, covenant and agree to faithfully observe, abide, and conform to all conditions. Covenants by judgment or court order

shall not affect any of the other provisions, which shall remain in full force and effect. If litigation is commenced, the prevailing party shall, in addition to any other remedy applicable in law or equity, be entitled to an award of reasonable attorney fees and expenses.

IN WITNESS WHEREOF, DEVELOPMENT CORPORATION has executed this Declaration of Covenants the day and year first above written.

ANALYTICAL SUMMARY REPORT

August 05, 2021

WWC Engineering Billings
550 S 24th St W Ste 201
Billings, MT 59102-6361

Work Order: B21071915

Project Name: Not Indicated

Energy Laboratories Inc Billings MT received the following 1 sample for WWC Engineering Billings on 7/23/2021 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B21071915-001	Kramer	07/23/21 13:05	07/23/21	Aqueous	Bacteria, Ecoli-water - MF Conductivity Carbon, Total Organic Anions by Ion Chromatography Nitrogen, Nitrate + Nitrite Nitrogen, Total Kjeldahl Nitrogen, Total (TKN+NO3+NO2) pH Preparation for TDS A2540 C TKN preparation E351.2 Solids, Total Dissolved

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager.

Report Approved By:

Brandy A Pelzel
Technical Data Reviewer

Digitally signed by
Brandy A. Pelzel
Date: 2021.08.05 15:42:54 -06:00

CLIENT: WWC Engineering Billings
Project: Not Indicated
Work Order: B21071915

Report Date: 08/05/21

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, PO Box 247, Casper, WY, EPA Number WY00002.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: WWC Engineering Billings
Project: Not Indicated
Lab ID: B21071915-001
Client Sample ID: Kramer

Report Date: 08/05/21
Collection Date: 07/23/21 13:05
DateReceived: 07/23/21
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MICROBIOLOGICAL							
Bacteria, E coli	32	CFU/100ml		1.0		E1603	07/23/21 14:59 / fap
Estimated number of E. coli CFU/100mL							
PHYSICAL PROPERTIES							
pH	7.6	s.u.	H	0.1		A4500-H B	07/23/21 14:52 / ftk
pH Measurement Temp	13.3	°C				A4500-H B	07/23/21 14:52 / ftk
Conductivity @ 25 C	1420	umhos/cm		5		A2510 B	07/23/21 14:52 / ftk
Solids, Total Dissolved TDS @ 180 C	1120	mg/L		10		A2540 C	07/23/21 15:44 / mjb
INORGANICS							
Chloride	8	mg/L		1		E300.0	07/24/21 01:24 / car
Sulfate	544	mg/L		1		E300.0	07/26/21 18:15 / car
AGGREGATE ORGANICS							
Organic Carbon, Total (TOC)	1.8	mg/L		0.5		A5310 C	07/29/21 15:00 / eli-ca
NUTRIENTS							
Nitrogen, Nitrate+Nitrite as N	5.71	mg/L	D	0.02		E353.2	07/26/21 16:09 / srh
Nitrogen, Kjeldahl, Total as N	ND	mg/L		0.5		E351.2	08/05/21 13:04 / mh
Nitrogen, Total	5.7	mg/L		0.5		Calculation	08/05/21 15:14 / bap

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
D - Reporting Limit (RL) increased due to sample matrix
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)
H - Analysis performed past the method holding time

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: WWC Engineering Billings **Work Order:** B21071915 **Report Date:** 07/30/21

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A5310 C									Analytical Run: TOC4-C_210729A
Lab ID: CCV-11940	Continuing Calibration Verification Standard								07/29/21 12:10
Organic Carbon, Total (TOC)	4.88	mg/L	0.50	98	90	110			
Method: A5310 C									Batch: R272970
Lab ID: LCS-11923	Laboratory Control Sample				Run: TOC4-C_210729A				07/29/21 11:39
Organic Carbon, Total (TOC)	4.97	mg/L	0.50	99	89	113			
Lab ID: MBLK	Method Blank				Run: TOC4-C_210729A				07/29/21 11:55
Organic Carbon, Total (TOC)	ND	mg/L	0.2						
Lab ID: C21070867-003IMS	Sample Matrix Spike				Run: TOC4-C_210729A				07/29/21 13:34
Organic Carbon, Total (TOC)	7.40	mg/L	0.50	97	89	113			
Lab ID: C21070867-003IMSD	Sample Matrix Spike Duplicate				Run: TOC4-C_210729A				07/29/21 13:50
Organic Carbon, Total (TOC)	7.41	mg/L	0.50	97	89	113	0.1	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: WWC Engineering Billings **Work Order:** B21071915 **Report Date:** 08/05/21

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **E351.2**									Analytical Run: FIA204-B_210805A
Lab ID: **ICV**	Initial Calibration Verification Standard								08/05/21 12:19
Nitrogen, Kjeldahl, Total as N	9.76	mg/L	0.50	98	90	110			
Lab ID: **CCV**	Continuing Calibration Verification Standard								08/05/21 12:43
Nitrogen, Kjeldahl, Total as N	9.72	mg/L	0.50	97	90	110			
Lab ID: **CCV**	Continuing Calibration Verification Standard								08/05/21 13:06
Nitrogen, Kjeldahl, Total as N	9.74	mg/L	0.50	97	90	110			
Method: **E351.2**									Batch: 157944
Lab ID: **MB-157944**	Method Blank				Run: FIA204-B_210805A				08/05/21 12:21
Nitrogen, Kjeldahl, Total as N	ND	mg/L	0.3						
Lab ID: **LCS-157944**	Laboratory Control Sample				Run: FIA204-B_210805A				08/05/21 12:22
Nitrogen, Kjeldahl, Total as N	9.60	mg/L	0.50	96	90	110			
Lab ID: **B21071862-001CMS**	Sample Matrix Spike				Run: FIA204-B_210805A				08/05/21 12:48
Nitrogen, Kjeldahl, Total as N	24.1	mg/L	0.50	92	90	110			
Lab ID: **B21071862-001CMSD**	Sample Matrix Spike Duplicate				Run: FIA204-B_210805A				08/05/21 12:50
Nitrogen, Kjeldahl, Total as N	24.0	mg/L	0.50	91	90	110	0.4	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: WWC Engineering Billings **Work Order:** B21071915 **Report Date:** 08/03/21

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **A2510 B**										Batch: R364324
Lab ID: **SC 2nd 1413**		Laboratory Control Sample				Run: PHSC _101-B_210723A				07/23/21 09:59
Conductivity @ 25 C		1400	umhos/cm	5.0	99	90	110			
Lab ID: **MBLK**		Method Blank				Run: PHSC _101-B_210723A				07/23/21 11:57
Conductivity @ 25 C		ND	umhos/cm	5						
Lab ID: **B21071844-001ADUP**		Sample Duplicate				Run: PHSC _101-B_210723A				07/23/21 13:19
Conductivity @ 25 C		96100	umhos/cm	5.0				0.9	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: WWC Engineering Billings **Work Order:** B21071915 **Report Date:** 08/03/21

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: 157624
Lab ID: MB-157624		Method Blank				Run: BAL #30_210723A				07/23/21 11:29
Solids, Total Dissolved TDS @ 180 C		ND	mg/L							
Lab ID: LCS-157624		Laboratory Control Sample				Run: BAL #30_210723A				07/23/21 11:30
Solids, Total Dissolved TDS @ 180 C		1030	mg/L	10	103	90	110			
Lab ID: B21071866-006A DUP		Sample Duplicate				Run: BAL #30_210723A				07/23/21 11:30
Solids, Total Dissolved TDS @ 180 C		54.7	mg/L	10				8.7	5	R

- Since the difference between the analytical result for the sample and its duplicate is less than the reporting limit, the RPD variance is not considered significant.

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

R - Relative Percent Difference (RPD) exceeds advisory limit

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: WWC Engineering Billings **Work Order:** B21071915 **Report Date:** 08/03/21

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B									Analytical Run: PHSC _101-B_210723A	
Lab ID: pH 8	2	Initial Calibration Verification Standard							07/23/21 09:44	
pH		8.0	s.u.	0.10	100	98	102			
pH Measurement Temp		20	°C							
Method: A4500-H B									Batch: R364324	
Lab ID: B21071844-001ADUP	2	Sample Duplicate				Run: PHSC _101-B_210723A			07/23/21 13:19	
pH		6.9	s.u.	0.1				0.2	3	
pH Measurement Temp		12.7	°C							

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: WWC Engineering Billings **Work Order:** B21071915 **Report Date:** 08/03/21

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **E300.0**										Analytical Run: IC METROHM 2_210723A
Lab ID: **ICV**		Initial Calibration Verification Standard								07/23/21 14:05
Chloride		24.5	mg/L	1.0	98	90	110			
Method: **E300.0**										Batch: R364464
Lab ID: **ICB**		Method Blank				Run: IC METROHM 2_210723A				07/23/21 14:36
Chloride		ND	mg/L	0.06						
Lab ID: **LFB**		Laboratory Fortified Blank				Run: IC METROHM 2_210723A				07/23/21 14:52
Chloride		24.9	mg/L	1.0	100	90	110			
Lab ID: **B21071885-001AMS**		Sample Matrix Spike				Run: IC METROHM 2_210723A				07/23/21 23:20
Chloride		516	mg/L	5.3	100	90	110			
Lab ID: **B21071885-001AMSD**		Sample Matrix Spike Duplicate				Run: IC METROHM 2_210723A				07/23/21 23:35
Chloride		518	mg/L	5.3	100	90	110	0.3	20	
Method: **E300.0**										Analytical Run: IC METROHM 2_210726A
Lab ID: **ICV**		Initial Calibration Verification Standard								07/26/21 17:13
Sulfate		103	mg/L	1.0	103	90	110			
Method: **E300.0**										Batch: R364502
Lab ID: **ICB**		Method Blank				Run: IC METROHM 2_210726A				07/26/21 17:28
Sulfate		ND	mg/L	0.3						
Lab ID: **LFB**		Laboratory Fortified Blank				Run: IC METROHM 2_210726A				07/26/21 17:44
Sulfate		106	mg/L	1.0	106	90	110			
Lab ID: **B21071915-001AMS**		Sample Matrix Spike				Run: IC METROHM 2_210726A				07/26/21 18:30
Sulfate		732	mg/L	1.1	94	90	110			
Lab ID: **B21071915-001AMSD**		Sample Matrix Spike Duplicate				Run: IC METROHM 2_210726A				07/26/21 18:45
Sulfate		719	mg/L	1.1	87	90	110	1.9	20	S

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

S - Spike recovery outside of advisory limits

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: WWC Engineering Billings **Work Order:** B21071915 **Report Date:** 08/03/21

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Analytical Run: FIA203-B_210726B
Lab ID: ICV		Initial Calibration Verification Standard								07/26/21 13:56
Nitrogen, Nitrate+Nitrite as N		0.565	mg/L	0.010	100	90	110			
Lab ID: CCV		Continuing Calibration Verification Standard								07/26/21 16:01
Nitrogen, Nitrate+Nitrite as N		1.03	mg/L	0.010	103	90	110			
Lab ID: CCV		Continuing Calibration Verification Standard								07/26/21 16:15
Nitrogen, Nitrate+Nitrite as N		1.01	mg/L	0.010	101	90	110			
Method: E353.2										Batch: R364487
Lab ID: MBLK		Method Blank				Run: FIA203-B_210726B				07/26/21 13:57
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.006						
Lab ID: LFB		Laboratory Fortified Blank				Run: FIA203-B_210726B				07/26/21 13:59
Nitrogen, Nitrate+Nitrite as N		1.05	mg/L	0.010	105	90	110			
Lab ID: B21071915-001CMS		Sample Matrix Spike				Run: FIA203-B_210726B				07/26/21 16:11
Nitrogen, Nitrate+Nitrite as N		7.83	mg/L	0.020	106	90	110			
Lab ID: B21071915-001CMSD		Sample Matrix Spike Duplicate				Run: FIA203-B_210726B				07/26/21 16:12
Nitrogen, Nitrate+Nitrite as N		7.69	mg/L	0.020	99	90	110	1.9	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

Work Order Receipt Checklist

WWC Engineering Billings

B21071915

Login completed by: Jaelynn F. Roesler
Date Received: 7/23/2021

Reviewed by: BL2000\dachirrick
Received by: dac

Reviewed Date: 7/23/2021
Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	10.4°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

Contact and Corrective Action Comments:

The Kramen water sample was preserved in the laboratory upon receipt. The sample for Nutrients was preserved to pH <2 with 2 mL of sulfuric acid per 250 mL.

ENERGY LABORATORIES

www energylab com

Chain of Custody (COC) & Analytical Request Record

Lab Workorder # B21071115

Project Information

Laboratory Use

Client.	WWC Engineering Billings	*Quote:*	N/A	*Critical Hold Time:*	8 Hours
Project.	Not Indicated	*BO#:*	154405	*# of Samples:*	1
Purchase Order		*EE#:*	33698	*Matrix*	Aqueous
Contact/Phone	Nile Zimmerman	*Turn-Around Time:*	Standard		

Comments. Phone Number 406-894-2210
Email nzimmerman@wwcengineering com

Contact ELI prior to RUSH sample submittal for charges, availability & scheduling Samples submitted may be subcontracted to other laboratories to complete the test(s) requested; this will be clearly noted on the analytical report.

Analysis Requested

	Sample Identification	Collection Date/Time	# of Containers	Matrix	RUSH TAT	Conductivity (A2510 B)	Anions by Ion Chromatography (E300.0)	pH (A4500-H B)	Solids, Total Dissolved (A2540 C)	Nitrogen, Nitrate + Nitrite (E353.2)	Nitrogen, Total Kjeldahl (E351.2)	Nitrogen, Total (TKN +NO3+NO2) (Calculation)	Carbon, Total Organic (A5310 C)	Bacteria, Ecoli-water - MF (E1603)					
	Hold Time (Days)					28	28	Fld	7	28	28	N/A	28	<1					
1	Kramer	7-23-21 1:05pm.	5	W		X	X	X	X	X	X	X	X	X					
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			

Custody Record MUST be signed

Lab provided preservatives were used ☐Yes ☐No

Sampler Name (if different than Relinquished by)

Sampler Phone

Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
Nile Zimmerman	7-23-21 2:00pm				
Relinquished by (print)	Date/Time	Signature	Received by laboratory (print)	Date/Time	Signature
			Dylan Chirnside	7/23/21 14:00	

SUBDIVISION IMPROVEMENTS AGREEMENT

LAZY KU SUBDIVISION, 2ND FILING

Table of Contents

LAZY KU SUBDIVISION, 2ND FILING

This agreement is made and entered into this _____day of _____, 20 ____, by and between *Lazy KU Estates LLC*, whose address for the purpose of this agreement is **3116 S 72nd Street W, Billings, Montana 59106**, hereinafter referred to as "Subdivider," and YELLOWSTONE COUNTY, Montana, hereinafter referred to as "County."

WITNESSETH:

WHEREAS, at a regular meeting conducted on _____day of _____, 20 ___, the Laurel City/County Board of Planning recommended conditional approval of a preliminary plat of *LAZY KU SUBDIVISION, 2ND FILING*; and

WHEREAS, at a regular meeting conducted on ____ day of _____, 20 ___, the Yellowstone County Board of County Commissioners conditionally approved a preliminary plat of *LAZY KU SUBDIVISION, 2ND FILING*; and

WHEREAS, a Subdivision Improvements Agreement is required by the County prior to the approval of the final plat.

WHEREAS, the provisions of this agreement shall be effective and applicable to *LAZY KU SUBDIVISION, 2ND FILING* upon the filing of the final plat thereof in the office of the Clerk and Recorder of Yellowstone County, Montana. The Subdivision shall comply with all requirements of the Laurel Subdivision Regulations, the rules, regulations, policies, and resolutions of Yellowstone County, and the laws and administrative rules of the State of Montana.

THEREFORE, THE PARTIES TO THIS AGREEMENT, for and in consideration of the mutual promises herein contained and for other good and valuable consideration, do hereby agree as follows:

I. VARIANCES

Subdivider requests no variances.

II. CONDITIONS THAT RUN WITH THE LAND

A. Lot owners should be aware that this subdivision is being built in close proximity to prime deer and antelope habitat and it is likely that homeowners will experience problems with damage to landscaped shrubs, flowers, and gardens. The Montana Fish, Wildlife, and Parks Department does not provide damage assistance unless there is damage to commercial crops and/or a threat to public health and safety.

B. Lot owners should be aware that soil characteristics within the area of this subdivision, as described in the 1972 Yellowstone County Soil Survey, indicate that there could be potential limitations for proposed construction on the lots, which may require a geotechnical survey prior to construction.

C. No water rights have been transferred to the lot owners. Irrigation ditches that exist on the perimeter of this development are for the benefit of other properties. Perimeter ditches and drains shall remain in place and shall not be altered by the Subdivider or subsequent owners.

D. There is attached hereto a Waiver waiving the right to protest the creation of the special improvement district or districts which by this reference is expressly incorporated herein and made as much a part hereof as though fully and completely set forth herein at this point. The Waiver will be filed with the plat, shall run with the land, and shall constitute the guarantee by the Subdivider and property owner, or owners of the developments described herein. Said Waiver is effective upon filing and is not conditioned on the completion of the conditions set forth in this Agreement. The Subdivider and owner specifically agree that they are waiving valuable rights and do so voluntarily.

E. Culverts and associated drainage swales shall not be filled in or altered by the subdivider or subsequent lot owners.

F. When required by road improvements, all fences and irrigation ditches in the public right-of-way adjacent to this subdivision shall be removed or relocated outside of the public right-of-way and any relocation outside of the public right-of-way shall be subject to securing and recording easements.

G. Future maintenance of all public (or common) improvements shall be done through one (1) or more RSID(s) created as part of the SIA for this subdivision.

H. Lot owners or their agent will obtain an Access Permit from County Public Works prior to any construction on any lot within the subdivision. The application will include a site plan showing the desired location of the access and show that it meets the requirements outlined by the DEQ storm water requirements for the subdivision. Failure to do so will result in the lot owner or their agent removing what has been installed and locating the access in an approved location at the lot owners' expense.

III. TRANSPORTATION

The subdivider agrees to guarantee all improvements for a period of one (1) year from the date of final acceptance by Yellowstone County.

A. Streets

Haystack Lane, Granary Drive, Barbed Wire Drive, and the extension of Ronald Kramer Drive, shall be built to county paved road standards with a satisfactory subbase, base course, and asphalt surface. Haystack Lane, Granary Drive, Barbed Wire Drive, and the extension of Ronald Kramer Drive, shall be a 60' right-of-way. They will be paved to the end of the lots being developed. The design cross-section shall be a 24-foot asphalt width street with 2-foot-wide gravel shoulders and shoulder drainage swales. These portions will be dedicated county road.
The entire length of Haystack Lane, Granary Drive, Barbed Wire Drive, and the extension of Ronald Kramer Drive, will be maintained by expansion of the existing county road RSID 869M.

B. Traffic Control Devices

Street name and stop signs for streets within the subdivision, or located immediately adjacent thereto, shall be furnished and installed in accordance with the specifications of the Yellowstone County Public Works Departments.

C. Access

Primary access to the subdivision will be from Ronald Kramer Drive to 72nd Street West.

Secondary access to the subdivision will be from Farmhouse Lane to Kramer Way to 72nd Street West.

D. Billings Area Bikeways and Trail Master Plan (BABTMP)

There is a proposed Long-Range Trail identified on 72nd Street West. The applicant is not responsible for any additional road development for bike lanes.

IV. EMERGENCY SERVICE

A 30,000-gallon water storage tank/dry hydrant was installed on the northern side Ronald Kramer Drive along the southwest corner of Tract 1 of Certificate of Survey No. 3777. The dry hydrant is located within a dry hydrant easement and is maintained and serviced by the existing RSID 870M. The dry hydrant system was installed by the Subdivider and inspected and approved by the Laurel Volunteer Fire Department.

V. STORM DRAINAGE

All drainage improvements shall comply with the provisions of the Section 16.04.070, Laurel Subdivision Regulations, and a stormwater management plan shall be submitted to and approved by the Montana Department of Environmental Quality (MDEQ), or its designee.

Stormwater will be collected onsite using a combination of swales, culverts, and the natural slope of the land and delivered to onsite storm detention facilities. All stormwater facilities will have access easements to facilitate maintenance.

VI. UTILITIES

A. Water

Public water service is not available in the subdivision at this time. In accordance with Section 16.04.080 Laurel Subdivision Regulations, all proposed water systems must obtain approval by MDEQ, or its designee.

Individual wills be permitted for the lots. An approval letter from MDEQ will be submitted with the final plat. The maintenance and operation of the wells will be by each individual homeowner.

B. Septic System

Municipal public sewer service is not available in the subdivision at this time. In accordance with Section 16.04.080 Yellowstone County Subdivision Regulations, all proposed sanitary sewer systems must obtain approval by MDEQ, or its designee.

Individual septic systems will be permitted. An approval letter from MDEQ will be submitted with the final plat. The maintenance and operation of the individual systems will be facilitated by the individual lot owner.

C. Power, Telephone, Gas, and Cable Television

The private utilities shall be installed within the provided easements. 10-foot-wide utility easements have been shown on the plat adjacent to all streets within the subdivision per the request of the utility companies.

VII. PARKS/OPEN SPACE

A total of 2.20 acres of parkland is required for this subdivision. There was a parkland surplus of 0.93 acre within Lazy KU Subdivision that could be used towards future development. Therefore, 1.27 acres will be provided by park dedications on the subdivision. The parkland will be finished graded and seeded with native prairie grass mixture. RSID 871M will be expanded for the maintenance of the parkland.

VIII. IRRIGATION

All internal irrigation facilities will remain within the subdivision. No water rights will be transferred to the lot owners.

IX. WEED MANAGEMENT

All noxious weeds on the latest Yellowstone County Noxious Weed List shall be controlled on all properties in the subdivision.

- A Weed Management Plan must be filed and updated as needed for approval by the Yellowstone County Weed Department. Said weed management plan shall contain the noxious weeds being addressed and the plan for the control of those weeds. All associated cost for noxious weed control is the responsibility of the owner of record.

- A revegetation plan shall be submitted as part of the management plan. A seeding recommendation can be obtained from the Yellowstone County Weed Department pursuant to Section 7-22-2152, MCA. The Yellowstone County Weed Department reserves the right to revise these recommendations based on the required site inspection.

X. SOILS/GEOTECHNICAL STUDY

Lot owners should be aware that soil characteristics within the area of this subdivision, as described in 1972 Yellowstone County Soil Survey, indicate that there could be potential limitations for proposed construction on the lots, which may require a geotechnical survey prior to construction.

XI. FINANCIAL GUARANTEES

Except as otherwise provided, Subdivider shall install and construct said required improvements by private contracts secured by bonds, irrevocable letters of credit, sequential development, or any other method that may be acceptable to the Planning Board and Board of County Commissioners. All engineering and legal work in connection with such improvements shall be paid by the contracting parties pursuant to said special improvement district or private contract, and the improvements shall be designed by and constructed under the supervision of a professional engineer competent in civil engineering, licensed in the state of Montana. Upon completion of the improvements, the consulting Engineer shall file with the Public Works Department, a statement certifying that the improvements have been completed in accordance with approved, seal stamped, record drawings, along with all required post-construction certification per Section 4.6.C. of the Yellowstone County Subdivision Regulations.

(In the event that all required improvements are not installed and constructed prior to final plat approval, the Subdivider shall provide a monetary security guarantee in the amount of 125% of the estimated total cost by one (1) of the methods listed in Chapter 5 of the Yellowstone County Subdivision Regulations. If using a security, describe the method in this section)

XII. LEGAL PROVISIONS

A. Subdivider agrees to guarantee all public improvements for a period of one year from the date of final acceptance by Yellowstone County.

B. The owners of the properties involved in this proposed Subdivision by signature subscribed herein below agree, consent, and shall be bound by the provisions of this Agreement.

C. The covenants, agreements, and all statements in this Agreement apply to and shall be binding on the heirs, personal representatives, successors and assigns of the respective parties.

D. In the event it becomes necessary for either party to this Agreement to retain an attorney to enforce any of the terms or conditions of this Agreement or to give any notice required herein, then the prevailing party or the party giving notice shall be entitled to reasonable attorney fees and costs.

E. Any amendments or modifications of this Agreement or any provisions herein shall be made in writing and executed in the same manner as this original document and shall after execution become a part of this Agreement.

F. Subdivider shall comply with all applicable federal, state, and local statutes, ordinances, and administrative regulations during the performance and discharge of its obligations. Subdivider

acknowledges and agrees that nothing contained herein shall relieve or exempt it from such compliance.

G. Subdivider agrees to create any required (or expansion of existing) RSID(s) for future maintenance of all public (or common) constructed improvements prior to final plat approval

IN WITNESS WHEREOF, the parties hereto have set their hands and official seals on the date first above written.

"SUBDIVIDER" *Lazy KU Estates LLC*

By: _____

Its: _____

STATE OF MONTANA)
: ss
County of Yellowstone)

On this _____day of_____, 20____, before me, a Notary Public in and for the State of Montana, personally appeared Cherryl Ann Kramer, known to me to be the Manager of *Lazy KU Estates LLC*, who executed the foregoing instrument and acknowledged to me that he/she executed the same.

_____
Notary Public in and for the State of Montana
Printed Name: _____
Residing at: _____
My commission expires: _____

This agreement is hereby approved and accepted by Yellowstone County, this _____ day of _____, 20 ____.

"COUNTY"
COUNTY OF YELLOWSTONE MONTANA

County of Yellowstone
Board of County Commissioners

By: _____
Chairman

_____
Commissioner

_____
Commissioner

Attest: _____
County Clerk and Recorder

STATE OF MONTANA)
: ss

County of Yellowstone)

On this _____day of _____, 20____, before me, a Notary Public in and for the State of Montana, personally appeared _____, and _____ , known to me to be the Board of County Commissioners and the County Clerk and Recorder, respectively, of Yellowstone County, Montana, whose names are subscribed to the foregoing instrument in such capacity and acknowledged to me that they executed the same on behalf of Yellowstone County, Montana.

_____
Notary Public in and for the State of Montana
Printed Name: _____
Residing at: _____
My commission expires: _____

Waiver of Right to Protest

FOR VALUABLE CONSIDERATION, the undersigned, being the Subdivider and all of the owners of the hereinafter described real property, do hereby waive the right to protest the formation of one or more Rural Special Improvement Districts (RSID's), for a period of no more than twenty years from the recording of this waiver, which Yellowstone County may require.

This Waiver and Agreement is independent from all other agreements and is supported by sufficient independent consideration to which the undersigned are parties, and shall run with the land and shall be binding upon the undersigned, their successors and assigns, and the same shall be recorded in the office of the County Clerk and Recorder of Yellowstone County, Montana.

The real property hereinabove mentioned is more particularly described as follows:

LAZY KU SUBDIVISION, 2ND FILING

Signed and dated this ____day of _____, 20____ .

Lazy KU Estates LLC

By: _____

Its: _____

STATE OF MONTANA)
: ss
County of Yellowstone)

On this _____day of _____, 20____, before me, a Notary Public in and for the State of Montana, personally appeared Cherryl Ann Kramer, known to me to be the Manager of *Lazy KU Estates LLC*, the person who executed the forgoing instrument and acknowledged to me that he/she executed the same.

IN WITNESS WHEROF, I have hereunto set my hand and affixed my Notarial Seal the day and year hereinabove written.

_____
Notary Public in and for the State of Montana
Printed name: _____
Residing in: _____
My commission expires: _____

TRAFFIC IMPACT STUDY REPORT

for

Lazy KU Subdivison, 2nd Filing

Yellowstone County, Montana

Prepared for

WWC Engineering

Prepared by

Marvin & Associates
1300 North Transtech Way
Billings, MT 59102

August 21, 2023

TRAFFIC IMPACT STUDY REPORT

for

Lazy KU Subdivison, 2nd Filing

Yellowstone County, Montana

Prepared for

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Prepared by

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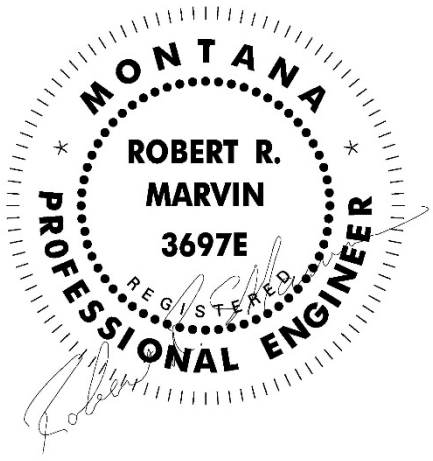
1300 North Transtech Way
Billings, MT 59102



August 21, 2023
P.T.O.E. # 259

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Marvin & Associates

Lazy KU Subdivision, 2nd Filing TIS

INTRODUCTION

This report summarizes a traffic impact study (TIS) performed for a new residential development in Yellowstone County. The following figures, tables, and narratives summarize the analysis of potential traffic impacts that could be associated with the proposed development. The Lazy KU Subdivision 2nd Filing development would involve 33 residential lots. The lots range in size from approximately 1.0 acres to 5.9 acres.

This TIS focuses on potential impacts at key intersections within a one-mile radius of the development property along with the proposed site access intersections. Since this site is located within Yellowstone County with no direct access to a Montana Department of Transportation (MDT) route, it was assumed that review of impacts associated with the development would be solely by Yellowstone County

PROPOSED SITE DEVELOPMENT

The development property is located north of Danford Road and west of 72nd Street West. The property is bordered by the Lazy KU Subdivision 1st Filing, on the east, BNSF Railroad tracks, on the west, and farmland on the north and south (see Figure 1). The proposed subdivision development plan includes two roadway accesses to 72nd Street West that were constructed as a part of development for the Lazy KU Subdivision 1st Filing. The northern access is Ronald Kramer Drive, and the southern access is Kramer Way. Both subdivision streets are currently paved. Lazy KU 2nd Filing roads will intersect at points along Farmhouse Lane, which is a paved road connection that loops between the two First Filing access roads. The 2nd Filing plan also provides for a future connection to the development on the northern extent of Haystack Lane, where a temporary cul-de-sac will be constructed. The development plan would have internal street alignments allowing street connections to adjacent properties to the south when future development occurs on those properties.

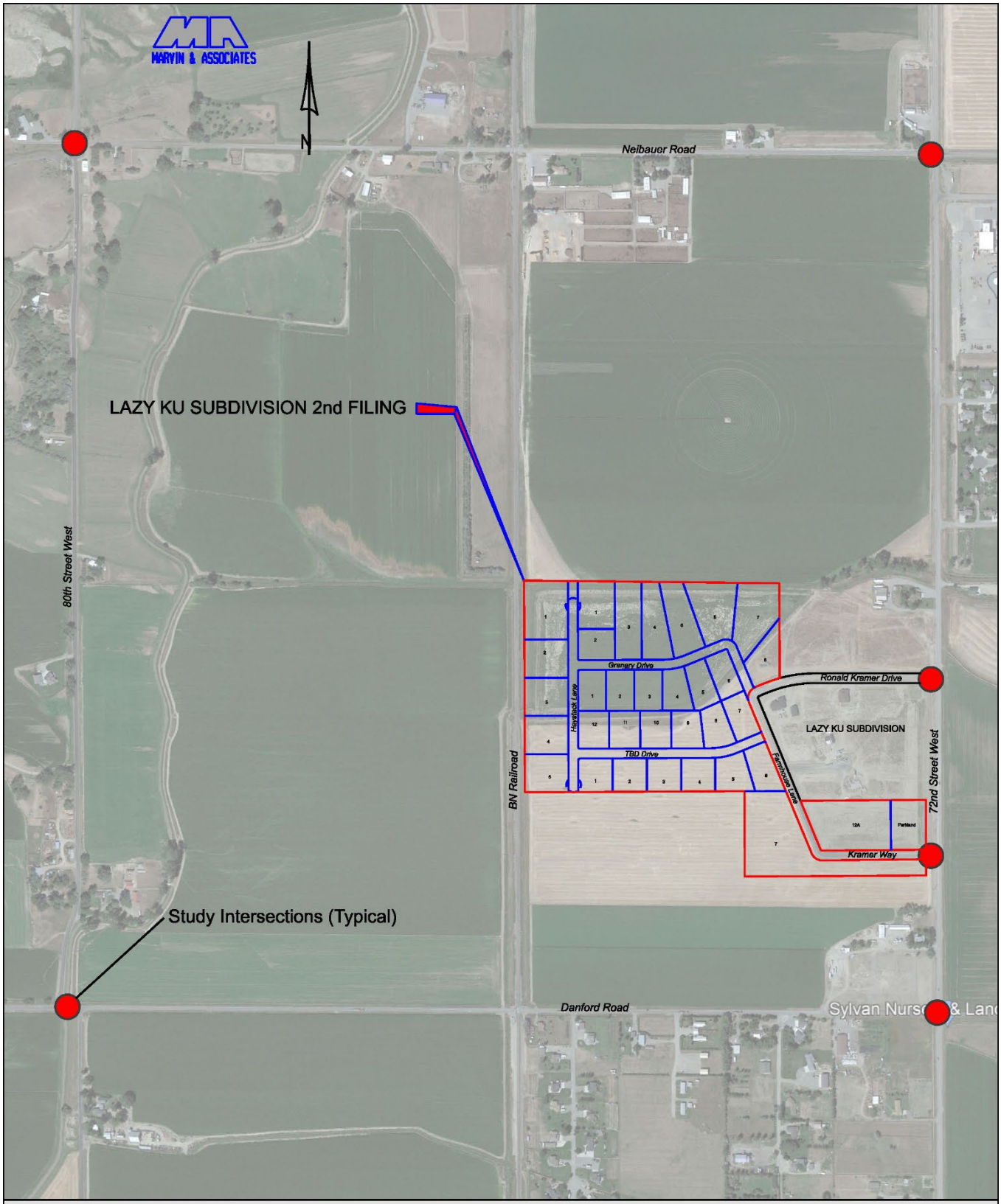


Figure 1. Site Location and Study Intersections

EXISTING CONDITIONS

Roads & Intersections

Potentially impacted intersections within a one-mile radius of the site development are on 72nd Street West, 80th Street West, Neibauer Road, and Danford Road. Site generated traffic would directly access 72nd Street West at existing intersections with Ronald Kramer Drive and Kramer Way which have the potential for impacts. Both intersections are currently three-legged intersections with stop control on the Lazy KU Subdivision access roads. The following narratives describe the roads included within this TIS:

- 72nd Street West is a County Road classified as a Major Collector route that extends from the East Laurel I-90 Interchange to a point north of King Avenue West, a distance of approximately 5.8 miles. It has a 24' paved surface with a standard Yellowstone County Roadway cross section, within a 60' right-of-way.
- Neibauer Road is classified as a County Road that extends from 80th Street West to the Shiloh Road I-90 Interchange, a distance of approximately 5.4 miles. It has a 24' paved with a standard Yellowstone County Roadway cross section, within a 60' right-of-way.
- Danford Road is classified as a County Road that extends from Yard Office Road to 48th Street West on the east, a distance of approximately 5.7 miles. It has a 26' paved surface with a standard Yellowstone County Roadway cross section, within a 60' right-of-way.
- 80th Street West is a County Road that extends from Danford Road to a point north of King Avenue West, a distance of approximately 3.6 miles. At its intersection with Danford Road, Seitz Ronan Road intersects with Danford Road immediately east of 80th Street West. The offset intersection accommodates north-south traffic flow without overlapping left-turn movements on Danford Road. 80th Street West has a 24' paved surface with a standard Yellowstone County Roadway cross section, within a 60' right-of-way.

The intersection of Neibauer Road and 80th Street West is stopped controlled on Neibauer Road. It is essentially a T-intersection with a private driveway on the west side of the intersection. A minor road approach from the west is located approximately 90' south of the Neibauer Road approach, which is also stop controlled. Sight distance from the stop controlled intersection appears to be adequate for the prevailing speeds on 80th Street West.

Neibauer Road is stop controlled at its intersection with 72nd Street West. The intersection has flat grades in all directions and the sight distance is unlimited in all directions. A stop controlled access road (Cowboy Way) intersects 72nd Street West from the east approximately 290' south of Neibaur Road which serves as one access to a large development of light industrial land uses in the southeast corner of 72nd Street West and Neibauer Road.

The intersections of Ronald Kramer Drive and Kramer Way are both stop controlled and there is unlimited sight distance from both intersections along 72nd Street West. Both street approaches are paved and approximately 20' wide.

The intersection of Danford Drive and 72nd Street West is stop-controlled on Danford Road. There is unlimited sight distance in all directions at this intersection. Pavement markings include centerline and edge line markings as do all of the study intersections.

The 80th Street intersection with Danford Road enters Danford Road from the north and is offset approximately 130' west of Seitz Ronan Road which enters Danford Road from the south. This configuration is typically known as an "Offset T Intersection". The operation of this type of intersection is often regarded as being safer than four legged intersections on higher speed rural intersections since minor road thru traffic forced to stop, left turns from the major street do not conflict, and right turning vehicles from the minor road do not need to yield to left turning vehicles on the major road. Sight distance at this intersection is unlimited except for trees along the north side of Danford Road west of 80th Street West which requires drivers to move closer to the edge lines to gain comfortable sight distance.

Existing Traffic Volumes

Both AM and PM turning movement counts were taken in June 2023 using Mio-Vision cameras at four existing study intersections (see Appendix A). Manual counts were taken at the intersection of Ronald Kramer Drive & Kramer Way. Graphic summaries of those counts can be seen in Figure 2. In addition, current Average Weekday Traffic (AWT) volumes were counted at the Intersection of 72nd Street West and Danford and hourly variation data from the 24-hour count can be found in Appendix A. Montana Department of Transportation (MDT) count station records indicate that the Average Weekday Traffic (AWT) in June is approximately 111% of the annual average weekday traffic. The traffic data shown in Figure 2 represent June counts adjusted to average annual conditions. It should be noted that the adjusted AWT volumes shown in Figure 2 are substantially higher than MDT annual average daily counts contained in MDT data records. It is suspected that counts on 72nd Street West were elevated by drivers avoiding delays caused by construction on I-90 from the East Laurel Interchange to King Avenue West.

Speeds

A spot speed study was conducted on 72nd Street West between the Kramer Wat and Ronald Kramer Drive intersection using a radar gun. The study was performed between 4:30 PM and 6:30 PM on July 13, 2023. Speed statistics can be found in Appendix B of this report. The 85th percentile speed in the southbound direction was approximately 62.4 mph while the northbound direction was approximately 63.1 mph. The 10 mph pace speeds were between 51 mph and 60 mph with approximately 60% of the vehicles within the pace. The mean speed for both directions of travel was approximately 59 mph. The results of this study indicate that the posted speed limit of 60 mph is appropriate for this roadway. The posted speed limit for the remining roadways within this study is 50 mph.

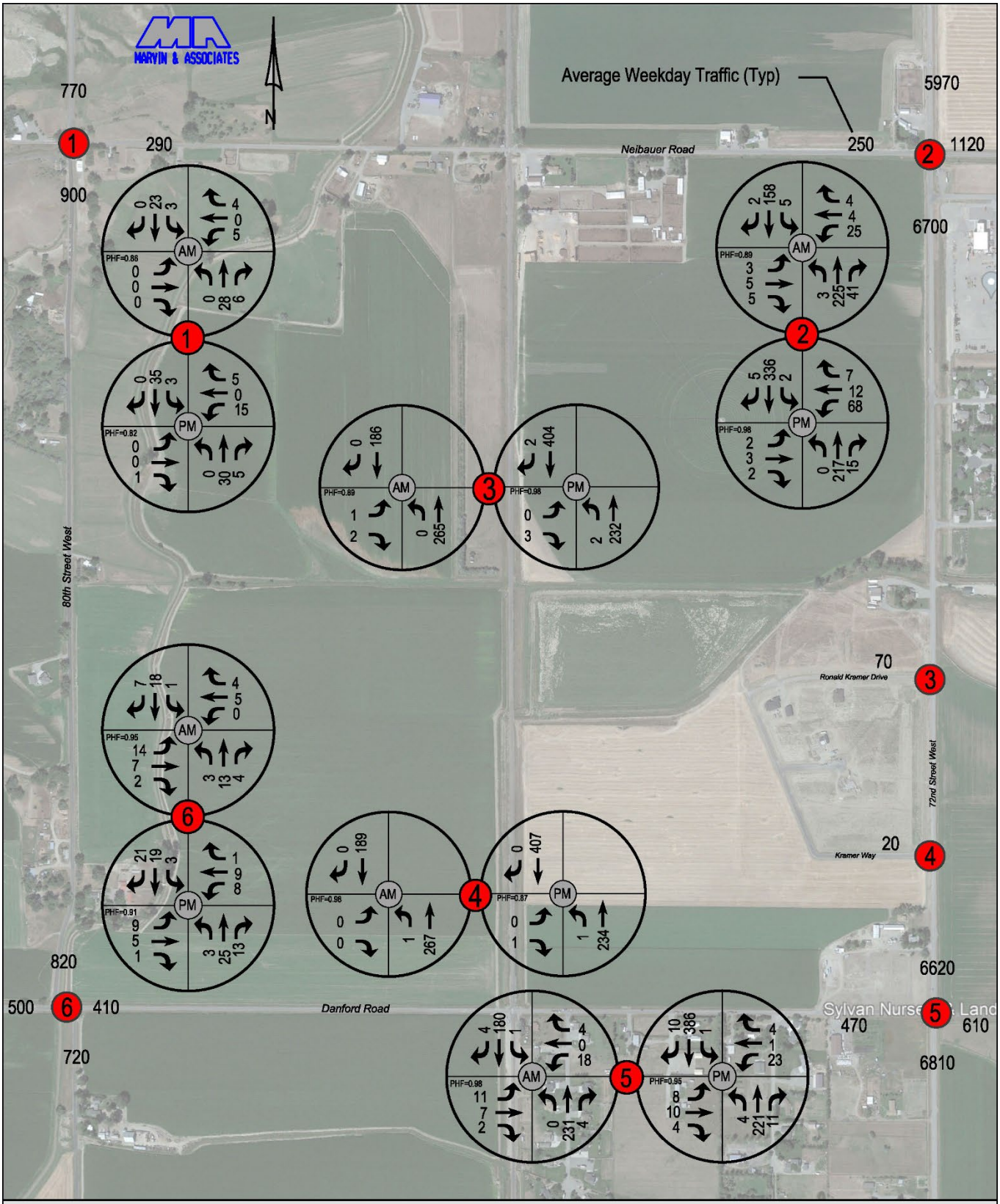


Figure 2. Year 2023 Traffic Count Summary

Existing Safety

The existing sight distance at all of the study intersections is adequate for the 85th % speeds on the study roadways. There were 10 crashes on 72nd Street West in the period between 2017 and 2022 within the study limits. Two of the crashes were at the intersection of 72nd Street West and Neibauer Road. There was one crash at both Cowboy Way and Danford Road. The crash rate on the one mile segment was approximately 1.56 crashes per million vehicle miles, which is slightly higher than the statewide crash rate on two-lane rural highways in Montana. Other than the 72nd Street West segment the only other crash at the study intersections was at Neibauer Road and Danford Road.

Existing Capacity

Capacity calculations (see Appendix C) were completed for the study intersections based upon current operating conditions and the AM and PM hour traffic volumes shown in Figure 2. It was determined that all approaches and movements currently operate at Level of Service (LOS) "C" or better during both the AM and PM peak hour periods at all of the study intersections. Table 1 shows that the westbound approach on Neibauer Road has the highest average vehicle delay at 15.4 seconds in the peak PM hour.

Table 1. Existing Traffic - Capacity Calculation Summary

		PEAK AM HOUR				PEAK PM HOUR		
Intersection	Int/App	Delay	LOS	Max Q	Int/App	Delay	LOS	Max Q
80th Street West & Neibauer Road	WB- Worst	8.7	A	0	WB- Worst	9.0	A	1
72nd Street West & Neibauer Road	WB- Worst	12.7	B	1	WB- Worst	15.4	C	1
72nd Street West & Ronald Kramer Drive	EB- Worst	10.2	B	0	EB- Worst	10.7	B	0
72nd Street West & Kramer Way	NB-Worst	9.6	A	0	EB- Worst	11.1	B	0
72nd Street West & Danford Road	EB- Worst	11.8	B	1	WB- Worst	14.9	B	1
80th Street West & Danford Road	NB-Worst	9.2	A	1	NB-Worst	9.2	A	1

DEVELOPMENT TRAFFIC PROJECTIONS

Trip Generation

The proposed subdivision's residential land use is represented by the ITE Trip Generation Report, 11th Edition, Land Use Code 210 "Single Family Residential". Table 2 presents the average weekday trips (AWT) along with the AM and PM hour rates that were used within the TIS analysis. There would be 375 trips on the average weekday with 28 in the peak AM hour and 35 in the peak PM hour. Trips entering and exiting the site are indicated in Table 2 for both peak hour periods.

Table 2. Lazy KU Subdivision, 2nd Filing Trip Generation Summary

ITE Trip Generation Report - 10th Edition			Average Weekday		Peak AM Hour				Peak PM Hour			
Development Area	No. of Units	Rate Units	Rate	Total Trips	Rate	Total Trips	Enter	Exit	Rate	Total Trips	Enter	Exit
Code 210 Single Family	**33**	DUs	*1*	375	*2*	28	7	21	*3*	35	22	13
Totals =	**33**			**375**		**28**	**7**	**21**		**35**	**22**	**13**

1 - Ln(T) = 0.92 Ln(X) + 2.71 *2 - T = 0.71(X)+4.80 (25% enter)* *3 - Ln(T) = 0.96 Ln(X) + 0.20 (63% enter)*

Since this development would be somewhat isolated from nearby trip attractors, it was assumed that pedestrian and bike trips would not contribute appreciably to the total number of trips. Thus, no reduction in the number of vehicular trips for alternate transportation modes can be made.

This subdivision development would not be conducive to attracting trips from existing traffic on adjacent roadways. Thus, it is unlikely that passerby trips would occur and no reductions in overall trip generation would be justified.

Trip Distribution

There are various methods available for determining the directional distribution of trips to and from site developments. For developments within large, urbanized areas, the task is best accomplished through the creation of a computerized transportation model of the urban street system, which includes the proposed development changes. When the creation of a model is not feasible, realistic estimates can be made by determining the distribution of existing traffic volumes on the surrounding street system. The existing distribution can then be applied to newly generated trips, with adjustments made based upon the likely trip origins and destinations associated with the particular development land use or uses. For Lazy KU Subdivision 2nd Filing, an existing conditions distribution was developed based upon area traffic patterns and an area of influence method, which considers the least travel time routing to external trip producers/attractors beyond the boundaries of the development. Results of the distribution analysis are summarized in Figure 3. It should also be noted that trips were divided between the two subdivision accesses based on a least travel time from internal residential units to and from external origins and destinations.

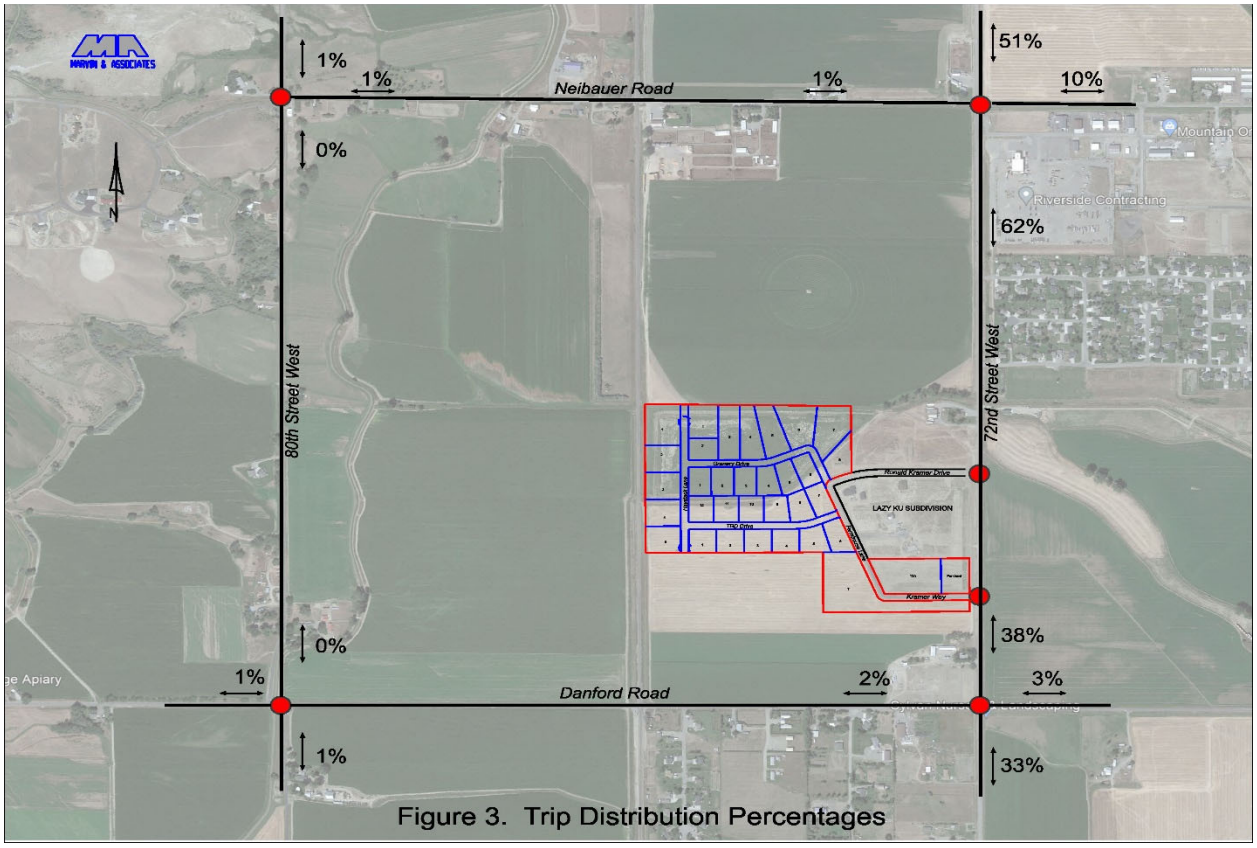


Figure 3. Trip Distribution Percentages

Traffic Assignment

Site traffic assignments were completed using the trip generation projections in Table 2 and the trip distribution percentages discussed in the preceding section. Traffic assignments shown in Figure 4 illustrate the peak AM and PM hour site traffic at the potentially impacted intersections and at site accesses, along with the average weekday vehicular site traffic assigned to the road system links. The traffic volumes shown in Figure 4 represent unconstrained conditions, which do not consider the effect capacity restrictions may have on movements into and out of the site.

TRAFFIC IMPACTS

Existing Plus Development Traffic Volumes

Figure 5 illustrates the combination of existing AM and PM design hour traffic volumes and Lazy KU Subdivision 2nd Filing generated traffic at the potentially impacted intersections and site access intersections. Also shown in Figure 5 are the resultant AWT volumes and the relative percentage increase over existing traffic that would be attributable to this development. In this case, 72nd Street West north of the development would have the highest increase in AWT of 3%.

It should be noted that traffic impacts on roads and streets that are less than 10% are not normally considered to be significant because daily traffic variations on any street or road routinely exceed 10%. In light of that, traffic increases on all of the other roads within the study area would be appreciably less than 10%, which indicates that any impacts on those streets would not be substantial or significant. The traffic increases on Neibauer Road, Danford Road, and 80th Street West would not be impacted by any site traffic during the AM and PM hours on the average weekday. Thus, impacts to efficiency cannot be calculated at those study intersections.

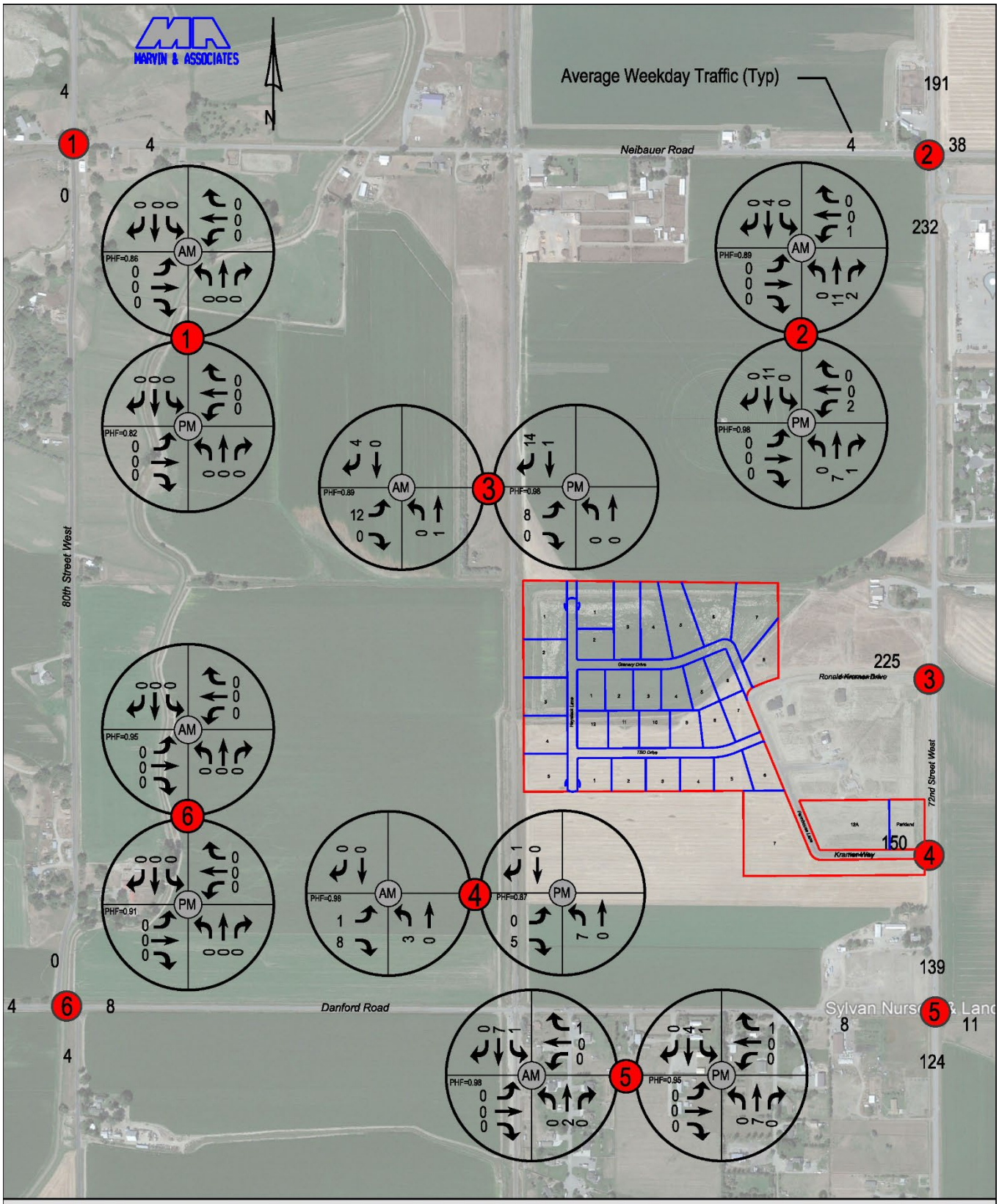


Figure 4. Lazy KU Subdivison 2nd Filing Traffic Assignment

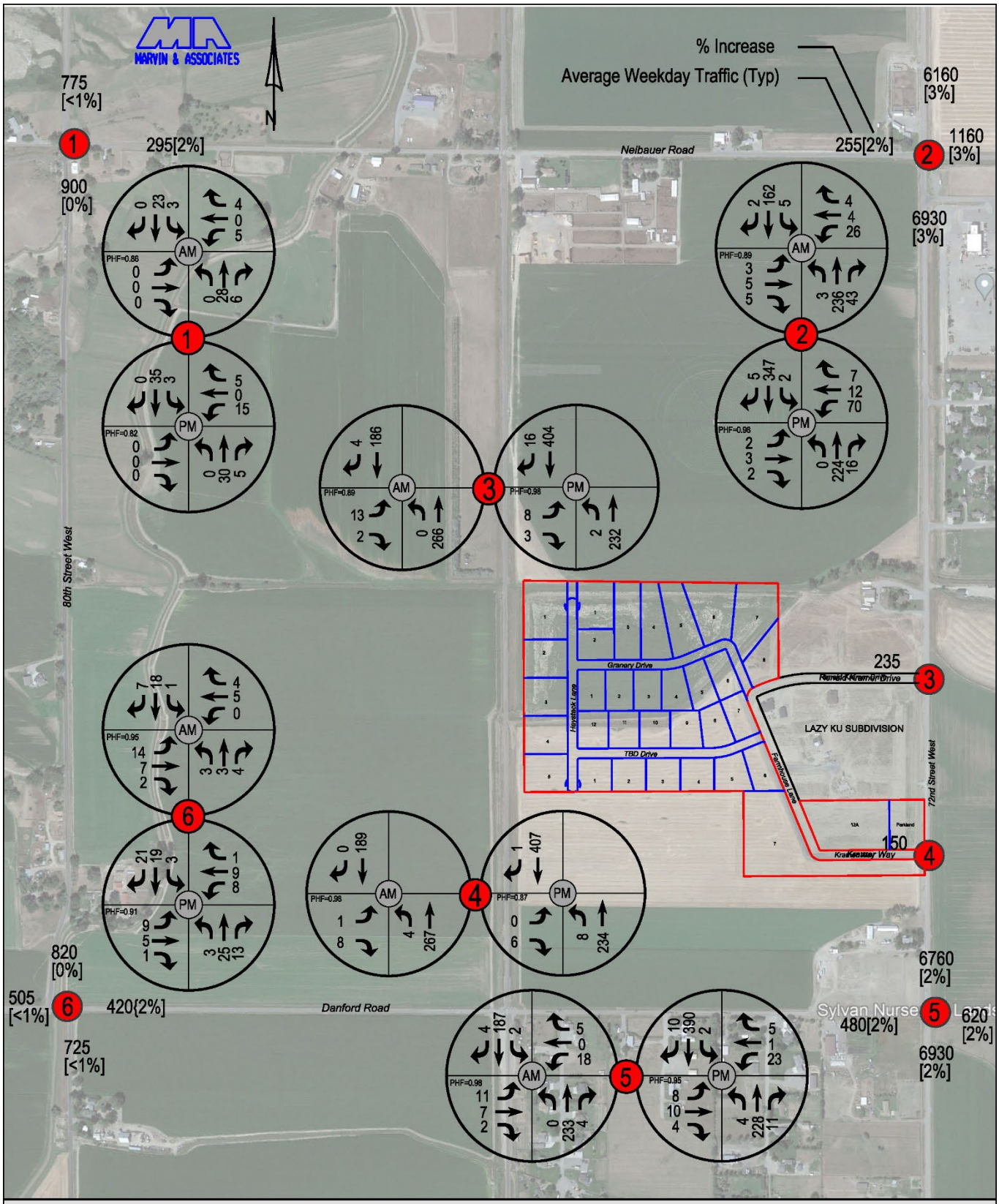


Figure 5. Existing 2023 Traffic Plus Site Traffic Generation

Existing Plus Site Traffic Capacity

Capacity calculations (see Appendix C) indicate that all approaches and all movements at the study intersections and at the site access intersections would still operate at LOS "C" or better during both the AM and PM hour periods if the development existed today. Table 3 indicates that all of the intersections would remain at the same LOS in both the AM and PM peak hours with slight variations in delay and maximum vehicle queues. The biggest impact would be a 2.2 second increase in average delay at the eastbound approach on Ronald Kramer Drive during the AM and PM peak hours.

Table 3. Existing Plus Site Traffic - Capacity Calculation Summary

		PEAK AM HOUR				PEAK PM HOUR		
Intersection	Int/App	Delay	LOS	Max Q	Int/App	Delay	LOS	Max Q
72nd Street West & Neibauer Road	WB- Worst	12.9	B	1	WB- Worst	15.8	C	1
72nd Street West & Ronald Kramer Drive	EB- Worst	11.8	B	1	EB- Worst	12.9	B	1
72nd Street West & Kramer Way	NB-Worst	9.6	A	0	EB- Worst	11.1	B	0
72nd Street West & Danford Road	EB- Worst	12.0	B	1	WB- Worst	15.0	B	1

Safety Considerations

An evaluation of available sight distance for each of the new site accesses was completed based upon geometric conditions. It was determined that there is adequate intersection sight distance for all of the site traffic movements at the new site accesses based on the 85th percentile speeds.

Geometric guidelines for right turn and left turn lane warrants on street facilities with 2 traffic lane facilities were used to determine if right turn entry movements would create potential safety issues. Since the number of right turn movements at all of the accesses and study intersections would be substantially less than 40 vehicles in the peak hours, warrants were not met. The only left turn movement substantial enough to meet left turn warrants would be at the intersection of Ronald Kramer Drive. Chapter 28 in MDT's Traffic Engineering Manual provides warrant nomographs for left turn lanes on two lanes highways with speed limits of 60 mph or greater. By inspection, it was determined that even with future traffic volume increases the left-turn warrant would fall well short of the required warrant values.

Future Traffic

An examination of MDT traffic count data indicates that historic traffic volumes on 72nd Street West provided the only documented historical traffic volume information near the study area. The average annual traffic growth on that facility was approximately 2.2% over a 10-year period. Thus, a 2.2% annual traffic increase was used to determine future traffic increases in the background traffic. It was assumed that the study subdivision could be fully developed within a 10-year period and future traffic volumes were calculated for the year 2033. Figure 6 presents the calculated traffic volumes for the year 2033 based on an annual growth rate of 2.2%, which was applied to existing traffic with site generated traffic volumes added for the AM, PM, and average weekday conditions. Figure 6 also includes additional traffic resulting from total development of Lazy KU Subdivision 1st Filing, which includes 7 lots that are currently not occupied .

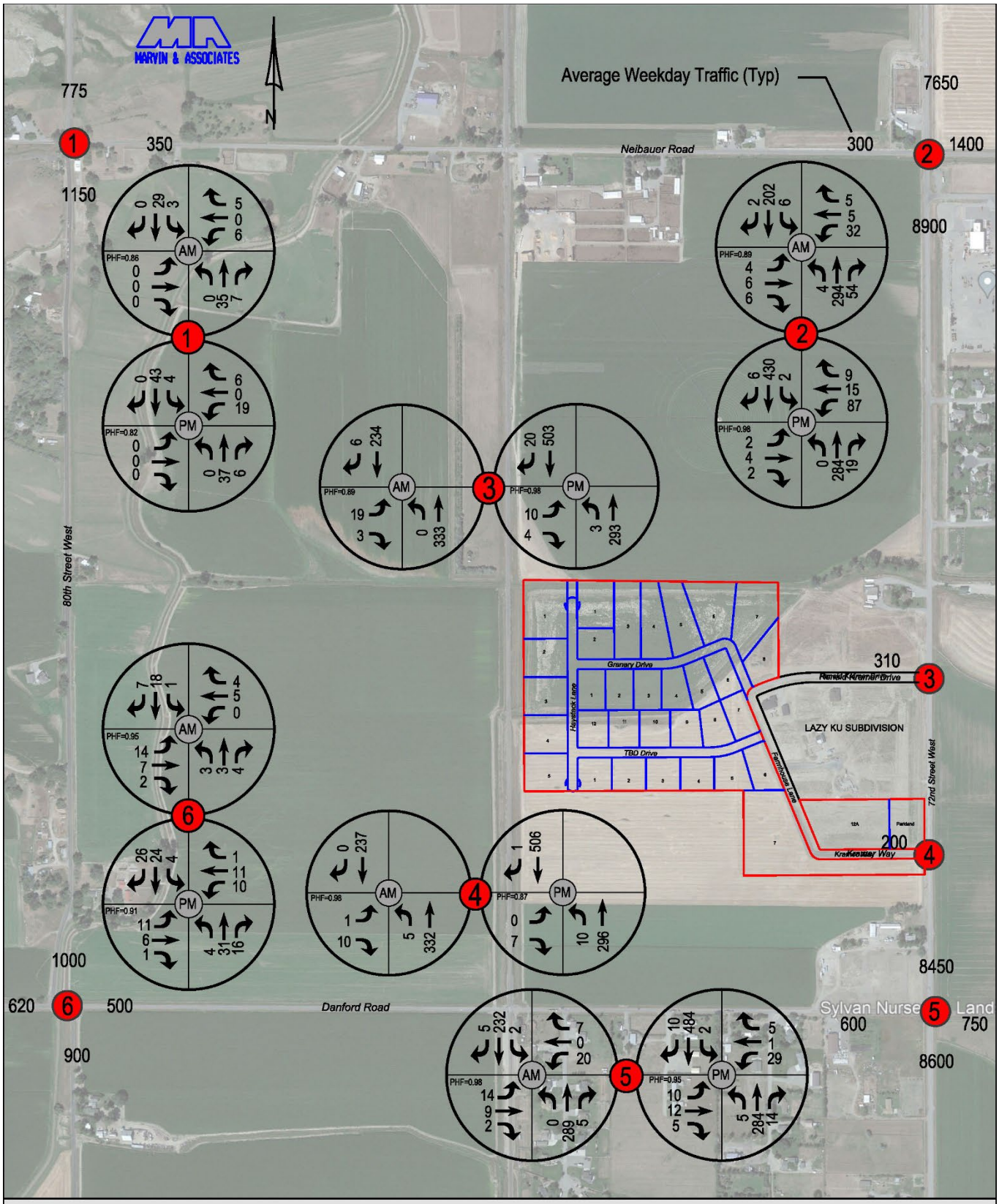


Figure 6. Year 2033 Traffic With 1st an 2nd Filing Traffic

Future Capacity

Table 4 present future capacity calculations based on the future traffic volumes shown in Figure 6. Two of the study intersections would only gain 1 or 2 vehicles at the assumed growth rate, by the year 2033, and there would be no significant difference in operations from the existing plus site traffic analysis. The intersections shown in Table 4 would all operate at a LOS "C" or better in the year 2033 and there would be ample capacity remaining to accommodate much larger growth in the future. The only change in LOS values would be at the intersection of Danford Road and 72nd Street West where the LOS on the westbound approach would go from LOS "B" to "C", adding 3.8 seconds per vehicle average delay.

Table 4. Year 2033 Traffic - Capacity Calculation Summary

		PEAK AM HOUR				PEAK PM HOUR		
Intersection	Int/App	Delay	LOS	Max Q	Int/App	Delay	LOS	Max Q
72nd Street West & Neibauer Road	WB- Worst	15.0	B	1	WB- Worst	20.8	C	2
72nd Street West & Ronald Kramer Drive	EB- Worst	13.2	B	1	EB- Worst	14.8	B	1
72nd Street West & Kramer Way	NB-Worst	9.9	A	0	EB- Worst	12.2	B	0
72nd Street West & Danford Road	EB- Worst	13.3	B	1	WB- Worst	18.8	C	1

Future Safety

Additional traffic at the study intersections in the year 2033 would not be sufficient to increase the warrant values for auxiliary turn lanes at the study intersections. The 72nd Street West intersections would experience incremental increases in the likelihood of crashes related to perpetuation of the current crash rates.

CONCLUSIONS & RECOMMENDATIONS

The Lazy KU Subdivision 2nd Filing development would not substantially impact the safety or efficiency of any of the study roads and intersections. Future traffic growth on 72nd Street West at current growth rates beyond the 10 year planning horizon could result in the need for roadway improvements to mitigate safety and efficiency concerns at key intersections. However, Lazy KU Subdivision, 2nd Filing site traffic would only be contributing a very small increment of the traffic necessary to cause roadway improvements.

APPENDIX A

Traffic Count Volumes

Study Name 80th & Neibauer
Start Date 06/27/2023
Start Time 4:00 PM
Site Code
Project Lazy KU Subdivision

Type Classification **Road Totals**

	80th St W Southbound			Neibauer Rd Westbound			80th St W Northbound			Private Drive Eastbound			Total
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Entering
7:00 AM	0	1	0	1	0	1	1	1	0	0	0	0	5
7:15 AM	0	8	1	1	0	0	0	8	0	0	0	0	18
7:30 AM	0	8	1	0	0	0	2	9	0	0	0	0	20
7:45 AM	0	3	0	1	0	0	2	11	0	0	0	0	17
8:00 AM	0	5	1	2	0	2	1	6	0	0	0	0	17
8:15 AM	0	10	1	1	0	3	2	5	0	0	0	0	22
8:30 AM	0	7	0	0	0	1	1	4	0	0	0	0	13
8:45 AM	0	4	3	0	0	0	1	1	0	0	0	0	9
Peak AM Hour =	**0**	**26**	**3**	**4**	**0**	**5**	**7**	**31**	**0**	**0**	**0**	**0**	**76**
PHF =	**0.86**												
4:00 PM	0	8	0	0	0	5	1	6	0	0	0	0	20
4:15 PM	0	9	1	1	0	3	3	6	0	0	0	0	23
4:30 PM	0	6	0	1	0	5	0	9	0	0	0	0	21
4:45 PM	0	11	1	3	0	5	3	8	0	1	0	0	32
5:00 PM	0	13	1	1	0	4	0	10	0	0	0	0	29
5:15 PM	0	3	0	0	0	5	0	5	0	0	0	0	13
5:30 PM	0	6	0	1	0	1	0	8	0	0	0	0	16
5:45 PM	0	8	0	0	0	6	2	10	0	0	0	0	26
Peak PM Hour =	**0**	**39**	**3**	**6**	**0**	**17**	**6**	**33**	**0**	**1**	**0**	**0**	**105**
PHF =	**0.82**												

Study Name 72nd & Neibauer
Start Date 06/29/2023
Start Time 7:00 AM
Site Code
Project Lazy KU Subdivision

Type Road
Classification Totals

	72nd St W Southbound			Neibauer Rd Westbound			72nd St W Northbound			Neibauer Rd Eastbound			Total
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Entering
7:00 AM	1	37	0	1	0	1	7	53	1	0	2	0	103
7:15 AM	1	43	2	0	1	4	9	58	1	1	2	0	122
7:30 AM	0	38	0	0	1	8	17	65	0	1	1	1	132
7:45 AM	1	43	1	2	0	9	14	72	2	3	2	1	150
8:00 AM	0	51	3	2	2	7	5	55	0	0	1	1	127
8:15 AM	1	34	5	1	2	6	9	56	0	2	0	0	116
8:30 AM	1	40	1	4	1	6	7	63	0	0	3	0	126
8:45 AM	0	44	2	1	1	7	3	52	0	0	1	0	111
Peak AM Hour =	**2**	**175**	**6**	**4**	**4**	**28**	**45**	**250**	**3**	**5**	**6**	**3**	**531**
PHF =	**0.89**												
4:00 PM	1	69	2	0	3	17	14	69	1	0	1	0	177
4:15 PM	2	90	0	0	3	19	11	63	1	0	1	3	193
4:30 PM	0	82	2	0	1	9	8	63	0	0	1	0	166
4:45 PM	1	84	1	0	0	26	4	57	0	0	0	0	173
5:00 PM	0	102	1	2	5	21	5	42	0	0	0	0	178
5:15 PM	1	84	1	1	1	26	4	68	0	1	1	0	188
5:30 PM	1	105	0	3	5	15	2	55	0	1	0	0	187
5:45 PM	4	82	0	2	2	14	6	76	0	0	2	2	190
Peak PM Hour =	**6**	**373**	**2**	**8**	**13**	**76**	**17**	**241**	**0**	**2**	**3**	**2**	**743**
PHF =	**0.98**												

Study Name 72nd & Danford
Start Date 06/29/2023
Start Time 6:30 AM
Site Code
Project Lazy KU SUB TIS

Type Classification **Road Totals**

	72nd St W Southbound			Danford Rd Westbound			72nd St W Northbound			Danford Rd Eastbound			Total
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Entering
6:30 AM	0	45	0	0	0	0	2	32	0	1	0	5	85
6:45 AM	1	37	0	1	0	0	1	42	1	0	1	3	87
7:00 AM	0	36	0	0	0	2	2	44	0	0	2	2	88
7:15 AM	0	51	0	1	0	5	2	62	0	1	4	4	130
7:30 AM	1	44	0	1	0	6	1	71	0	1	2	3	130
7:45 AM	2	51	0	2	0	3	1	65	0	0	0	4	128
8:00 AM	1	54	1	0	0	6	0	59	0	0	2	1	124
8:15 AM	4	43	0	0	0	4	3	63	0	0	2	1	120
8:30 AM	0	46	0	0	1	7	1	53	2	0	1	5	116
Peak AM Hour =	**4**	**200**	**1**	**4**	**0**	**20**	**4**	**257**	**0**	**2**	**8**	**12**	**512**
PHF =	**0.98**												
4:00 PM	7	67	0	0	5	2	5	76	0	1	1	3	167
4:15 PM	4	103	0	1	2	2	4	76	2	3	4	1	202
4:30 PM	2	92	0	0	1	5	4	74	2	0	4	5	189
4:45 PM	3	106	2	0	2	2	1	60	2	0	0	0	178
5:00 PM	4	107	0	2	4	6	0	46	0	1	1	3	174
5:15 PM	1	109	1	1	2	4	1	66	2	1	5	5	198
5:30 PM	2	113	0	0	2	10	8	60	2	2	2	0	201
5:45 PM	4	100	0	1	2	5	3	73	0	0	3	1	192
6:00 PM	3	81	1	0	3	0	5	53	0	0	0	2	148
6:15 PM	3	56	0	0	1	0	1	40	0	1	1	1	104
6:30 PM	0	45	0	0	1	2	3	53	1	1	0	3	109
Peak PM Hour =	**11**	**429**	**1**	**4**	**10**	**25**	**12**	**245**	**4**	**4**	**11**	**9**	**765**
PHF =	**0.95**												

Study Name	**80th & Danford**
Start Date	**06/27/2023**
Start Time	**4:00 PM**
Site Code	
Project	**Lazy KU Subdivision**
Type	**Road**
Classification	**Totals**

	80th St W Southbound			Danford Rd Westbound			80th St W Northbound			Danford Rd Eastbound			Total
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Entering
7:00 AM	3	2	0	0	0	0	1	3	0	0	1	0	10
7:15 AM	2	7	0	0	0	2	0	5	0	0	3	3	22
7:30 AM	3	4	0	1	1	0	1	4	0	1	1	4	20
7:45 AM	0	4	0	1	0	0	0	7	2	0	1	5	20
8:00 AM	3	4	0	2	2	0	3	3	1	1	2	1	22
8:15 AM	2	8	1	0	2	0	0	0	0	0	4	5	22
8:30 AM	4	5	0	1	0	0	1	2	0	0	2	1	16
8:45 AM	1	2	0	0	1	0	4	1	0	2	1	0	12
Peak AM Hour =	**8**	**20**	**1**	**4**	**5**	**0**	**4**	**14**	**3**	**2**	**8**	**15**	**84**
PHF =	**0.95**												
4:00 PM	4	6	0	0	3	2	0	7	3	0	2	0	27
4:15 PM	5	5	2	0	1	3	4	8	0	0	1	2	31
4:30 PM	10	4	0	0	4	1	3	5	0	1	0	7	35
4:45 PM	4	6	1	1	2	3	7	8	0	0	2	1	35
5:00 PM	0	6	0	0	2	0	1	5	1	0	5	5	25
5:15 PM	4	2	0	0	2	3	0	3	0	1	3	1	19
5:30 PM	4	2	0	0	3	0	1	6	1	0	4	3	24
5:45 PM	5	6	0	0	3	1	2	6	1	0	4	3	31
Peak PM Hour =	**23**	**21**	**3**	**1**	**10**	**9**	**14**	**28**	**3**	**1**	**5**	**10**	**128**
PHF =	**0.91**												

Marvin & Associates

72nd Street West North of Danford Road 6/29/2023 (Thursday)

Hour Begin	Norhbound	Southbound	Both Directions	% of Weekday
12	9	9	18	0.2%
1	7	10	17	0.2%
2	5	8	13	0.2%
3	7	12	19	0.3%
4	25	17	42	0.6%
5	58	58	116	1.6%
6	124	133	257	3.5%
7	255	185	440	6.0%
8	239	204	443	6.0%
9	191	174	365	5.0%
10	195	191	386	5.3%
11	221	227	448	6.1%
12	243	233	476	6.5%
13	248	232	480	6.5%
14	243	269	512	7.0%
15	259	319	578	7.9%
16	295	384	679	9.3%
17	254	440	694	9.5%
18	190	238	428	5.8%
19	130	151	281	3.8%
20	196	110	306	4.2%
21	111	95	206	2.8%
22	37	32	69	0.9%
23	30	32	62	0.8%
Totals	**3572**	**3763**	**7335**	**100.0%**

APPENDIX B

Spot Speed Study

SPOT SPEED STUDY ANALYSIS (Counter)

Marvin & Associates

SITE : **72 Street WestSouth of Ronald Kramer Drive**
DIRECTION: Nortbound
DATE: 7/13/23
TIME: 2 Hours

SPEED RANGE	SPEED VALUE	SPEED FREQUENCY	CUMULATIVE FREQUENCY	RELATIVE FREQ (%)	CUMULATIVE FREQ (%)
0 to 15	15	0	0	0.00%	0.00%
16 to 20	20	0	0	0.00%	0.00%
21 to 25	25	0	0	0.00%	0.00%
26 to 30	30	0	0	0.00%	0.00%
31 to 35	35	0	0	0.00%	0.00%
36 to 40	40	2	2	0.89%	0.89%
41 to 45	45	4	6	1.79%	2.68%
46 to 50	50	21	27	9.38%	12.05%
51 to 55	55	60	87	26.79%	38.84%
56 to 60	60	72	159	32.14%	70.98%
61 to 65	65	51	210	22.77%	93.75%
66 to 70	70	14	224	6.25%	100.00%

TOTAL VEHICLES = 224

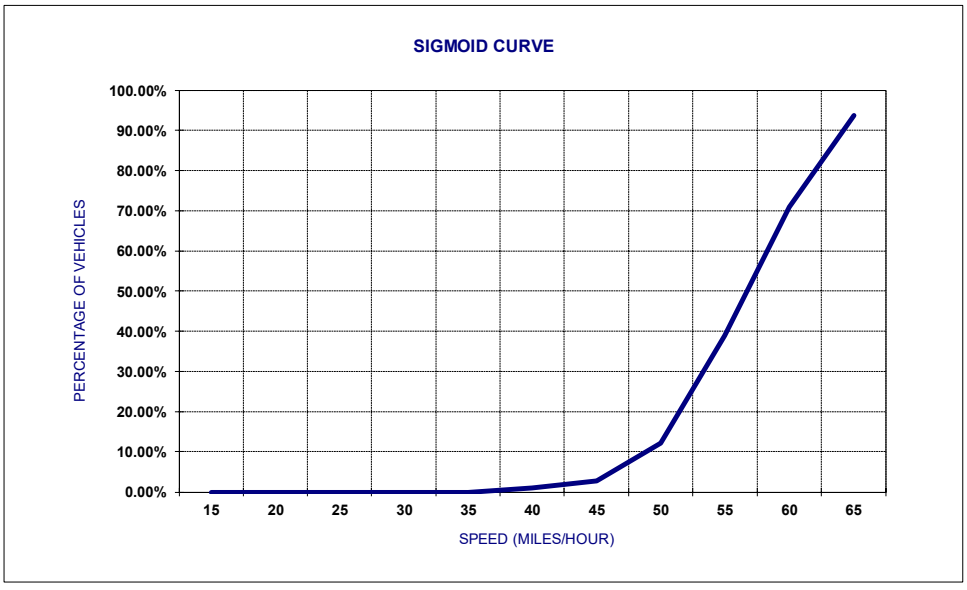
MEAN SPEED = 59.04 mph

85TH PERCENTILE = 63.08 mph

PACE SPEED = 51 mph TO 60 mph

Number of Vehicles in Pace = 132

% of Total Vehicles in Pace = 58.9%



SPOT SPEED STUDY ANALYSIS (Counter)

Marvin & Associates

SITE : **72 Street WestSouth of Ronald Kramer Drive**
DIRECTION: Southbound
DATE: 7/13/23
TIME: 2 Hours

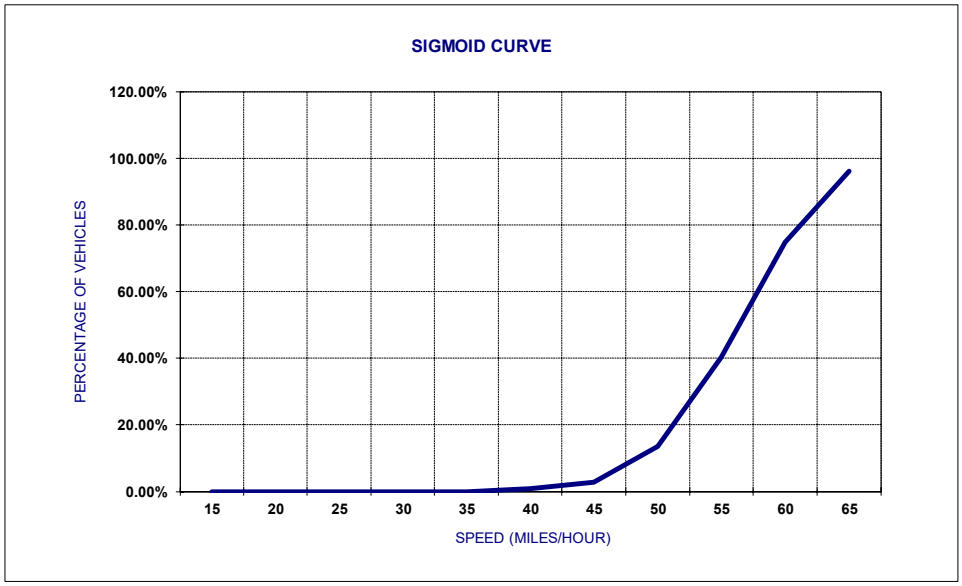
SPEED RANGE	SPEED VALUE	SPEED FREQUENCY	CUMULATIVE FREQUENCY	RELATIVE FREQ (%)	CUMULATIVE FREQ (%)
0 to 15	15	0	0	0.00%	0.00%
16 to 20	20	0	0	0.00%	0.00%
21 to 25	25	0	0	0.00%	0.00%
26 to 30	30	0	0	0.00%	0.00%
31 to 35	35	0	0	0.00%	0.00%
36 to 40	40	2	2	0.87%	0.87%
41 to 45	45	4	6	1.75%	2.62%
46 to 50	50	25	31	10.92%	13.54%
51 to 55	55	61	92	26.64%	40.17%
56 to 60	60	79	171	34.50%	74.67%
61 to 65	65	49	220	21.40%	96.07%
66 to 70	80	9	229	3.93%	100.00%
				0.00%	

TOTAL VEHICLES = 229

MEAN SPEED = 55.85 mph

85TH PERCENTILE = 62.41 mph

PACE SPEED = 51 mph TO 60 mph
Number of Vehicles in Pace = 140
% of Total Vehicles in Pace = 61.1%



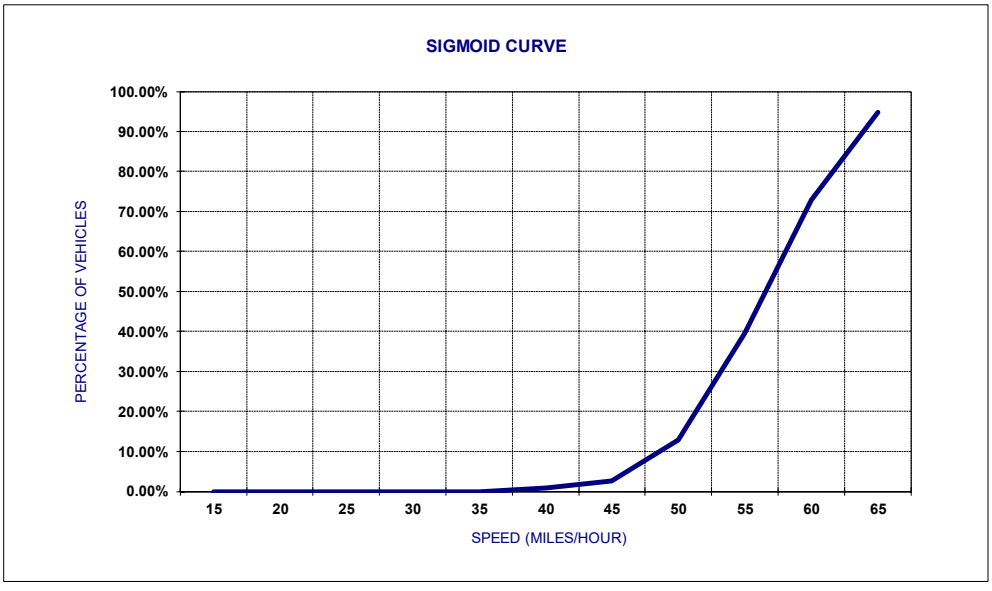
SPOT SPEED STUDY ANALYSIS (Counter)

Marvin & Associates

SITE : **72 Street WestSouth of Ronald Kramer Drive**
DIRECTION: **NB & SB**
DATE: **7/13/23**
TIME: **2 Hours**

SPEED RANGE	SPEED VALUE	SPEED FREQUENCY	CUMULATIVE FREQUENCY	RELATIVE FREQ (%)	CUMULATIVE FREQ (%)
0 to 15	15	0	0	0.00%	0.00%
16 to 20	20	0	0	0.00%	0.00%
21 to 25	25	0	0	0.00%	0.00%
26 to 30	30	0	0	0.00%	0.00%
31 to 35	35	0	0	0.00%	0.00%
36 to 40	40	4	4	0.88%	0.88%
41 to 45	45	8	12	1.77%	2.65%
46 to 50	50	46	58	10.15%	12.80%
51 to 55	55	121	179	26.71%	39.51%
56 to 60	60	151	330	33.33%	72.85%
61 to 65	65	100	430	22.08%	94.92%
66 to 70	70	23	453	5.08%	100.00%

TOTAL VEHICLES =	453		750	
MEAN SPEED =	58.82	mph		
85TH PERCENTILE =	62.24	mph		
PACE SPEED =	51	mph	TO	60 mph
Number of Vehicles in Pace =	272			
% of Total Vehicles in Pace =	60.0%			



APPENDIX C-1

Existing Capacity Calculations

HCS Two-Way Stop-Control Report

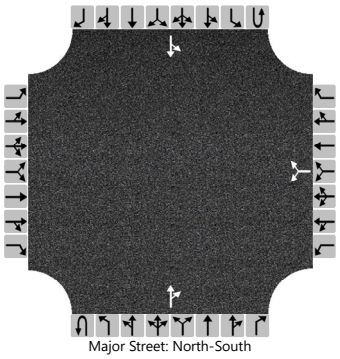
General Information

Analyst	R Marvin
Agency/Co.	Marvin Associates
Date Performed	7/24/2023
Analysis Year	2023
Time Analyzed	AM Hour
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	80th Street & Neibauer
Jurisdiction	Yellowstone County
East/West Street	Neibauer Road
North/South Street	80th Street West
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						5		4			28	6		3	23	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							10							3		
Capacity, c (veh/h)							973							1564		
v/c Ratio							0.01							0.00		
95% Queue Length, Q_{95} (veh)							0.0							0.0		
Control Delay (s/veh)							8.7							7.3	0.0	
Level of Service (LOS)							A							A	A	
Approach Delay (s/veh)						8.7								0.9		
Approach LOS						A								A		

HCS Two-Way Stop-Control Report

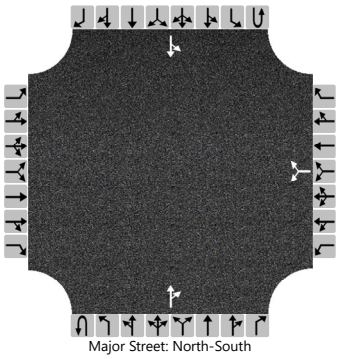
General Information

Analyst	R Marvin
Agency/Co.	Marvin Associates
Date Performed	7/24/2023
Analysis Year	2023
Time Analyzed	PM Hour
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	80th Street & Neibauer
Jurisdiction	Yellowstone County
East/West Street	Neibauer Road
North/South Street	80th Street West
Peak Hour Factor	0.82
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						15		5			30	5		3	35	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							24							4		
Capacity, c (veh/h)							934							1560		
v/c Ratio							0.03							0.00		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							9.0							7.3	0.0	
Level of Service (LOS)							A							A	A	
Approach Delay (s/veh)						9.0								0.6		
Approach LOS						A								A		

HCS Two-Way Stop-Control Report

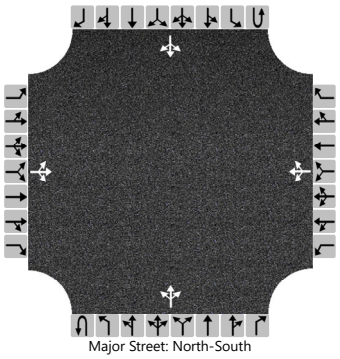
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	AM Hour Existing
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Street W & Neibauer
Jurisdiction	ellowstone County
East/West Street	Neibauer Road
North/South Street	72 nd Street Wesst
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		3	5	5		25	4	4		3	225	41		5	158	2
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			15				37			3				6		
Capacity, c (veh/h)			575				505			1390				1257		
v/c Ratio			0.03				0.07			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.1				0.2			0.0				0.0		
Control Delay (s/veh)			11.4				12.7			7.6	0.0	0.0		7.9	0.0	0.0
Level of Service (LOS)			B				B			A	A	A		A	A	A
Approach Delay (s/veh)	11.4				12.7				0.1				0.3			
Approach LOS	B				B				A				A			

HCS Two-Way Stop-Control Report

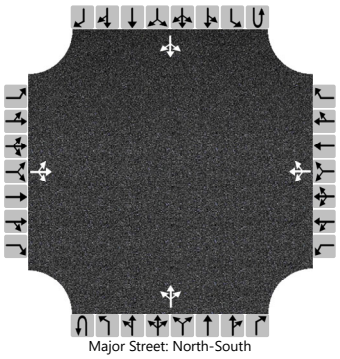
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	PM Hour Existing
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Street W & Neibauer
Jurisdiction	ellowstone County
East/West Street	Neibauer Road
North/South Street	72 nd Street Wesst
Peak Hour Factor	0.98
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		2	3	2		68	12	7		0	217	15		2	338	5
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			7				89			0				2		
Capacity, c (veh/h)			466				435			1203				1324		
v/c Ratio			0.02				0.20			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.0				0.8			0.0				0.0		
Control Delay (s/veh)			12.9				15.4			8.0	0.0	0.0		7.7	0.0	0.0
Level of Service (LOS)			B				C			A	A	A		A	A	A
Approach Delay (s/veh)	12.9				15.4				0.0				0.1			
Approach LOS	B				C				A				A			

HCS Two-Way Stop-Control Report

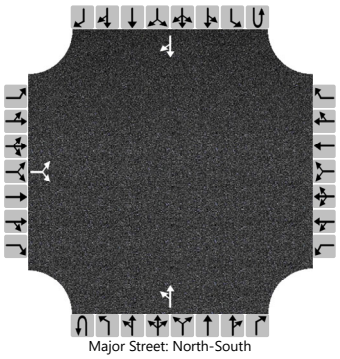
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	AM Hour Existing
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Dtreet w & Ron Kramer Dr
Jurisdiction	Yellowstone County
East/West Street	Ronald Kramer Drive
North/South Street	72nd Street West
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		1		2						0	265				186	0
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			3							0						
Capacity, c (veh/h)			694							1356						
v/c Ratio			0.00							0.00						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			10.2							7.7	0.0					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)		10.2								0.0						
Approach LOS		B								A						

HCS Two-Way Stop-Control Report

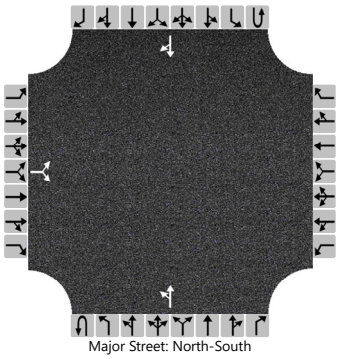
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	PM Hour Existing
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Dtreet w & Ron Kramer Dr
Jurisdiction	Yellowstone County
East/West Street	Ronald Kramer Drive
North/South Street	72nd Street West
Peak Hour Factor	0.98
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		0		3						2	232				404	2
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			3							2						
Capacity, c (veh/h)			637							1139						
v/c Ratio			0.00							0.00						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			10.7							8.2	0.0					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)		10.7								0.1						
Approach LOS		B								A						

HCS Two-Way Stop-Control Report

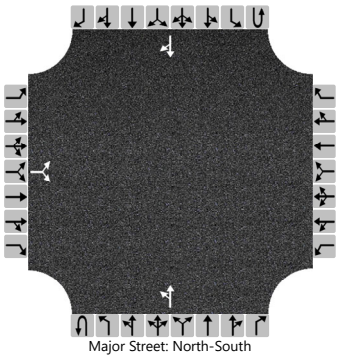
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	AM Hour Existing
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Dtreet w & Kramer Way
Jurisdiction	Yellowstone County
East/West Street	Kramer Way
North/South Street	72nd Street West
Peak Hour Factor	0.98
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		0		0						1	267				189	0
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0							1						
Capacity, c (veh/h)			0							1374						
v/c Ratio										0.00						
95% Queue Length, Q_{95} (veh)										0.0						
Control Delay (s/veh)										7.6	0.0					
Level of Service (LOS)										A	A					
Approach Delay (s/veh)									0.0							
Approach LOS									A							

HCS Two-Way Stop-Control Report

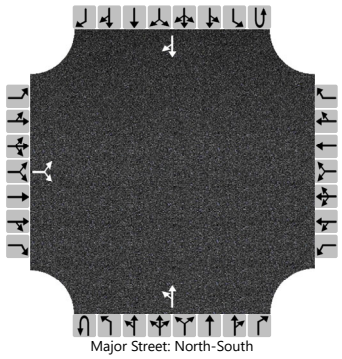
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	PM Hour Existing
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Dtreet w & Kramer Way
Jurisdiction	Yellowstone County
East/West Street	Kramer Way
North/South Street	72nd Street West
Peak Hour Factor	0.87
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		0		1						1	234				407	0
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			1							1						
Capacity, c (veh/h)			593							1088						
v/c Ratio			0.00							0.00						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			11.1							8.3	0.0					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)		11.1								0.0						
Approach LOS		B								A						

HCS Two-Way Stop-Control Report

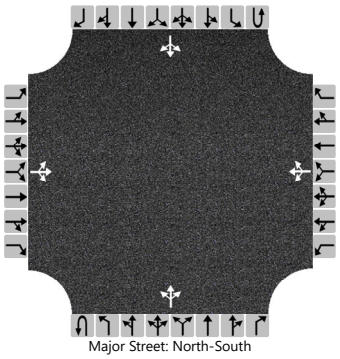
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	AMHour Existing
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Street W & Danford
Jurisdiction	ellowstone County
East/West Street	Danford Road
North/South Street	72 nd Street Wesst
Peak Hour Factor	0.98
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		11	7	2		18	0	4		0	231	4		1	180	4
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			20				22			0				1		
Capacity, c (veh/h)			548				559			1380				1321		
v/c Ratio			0.04				0.04			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.1				0.1			0.0				0.0		
Control Delay (s/veh)			11.8				11.7			7.6	0.0	0.0		7.7	0.0	0.0
Level of Service (LOS)			B				B			A	A	A		A	A	A
Approach Delay (s/veh)	11.8				11.7				0.0				0.0			
Approach LOS	B				B				A				A			

HCS Two-Way Stop-Control Report

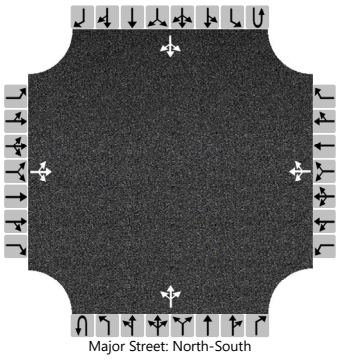
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	PMHour Existing
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Street W & Danford
Jurisdiction	ellowstone County
East/West Street	Danford Road
North/South Street	72 nd Street Wesst
Peak Hour Factor	0.96
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		8	10	4		23	1	4		4	221	11		1	386	10
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			23				29			4				1		
Capacity, c (veh/h)			407				392			1141				1319		
v/c Ratio			0.06				0.07			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.2				0.2			0.0				0.0		
Control Delay (s/veh)			14.4				14.9			8.2	0.0	0.0		7.7	0.0	0.0
Level of Service (LOS)			B				B			A	A	A		A	A	A
Approach Delay (s/veh)	14.4				14.9				0.2				0.0			
Approach LOS	B				B				A				A			

HCS Two-Way Stop-Control Report

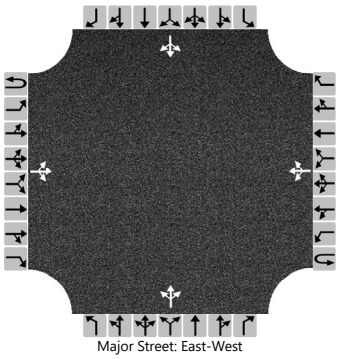
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	AMHour Existing
Intersection Orientation	East-West
Project Description	Lazy KU Subdivision

Site Information

Intersection	80th Street W & Danford
Jurisdiction	ellowstone County
East/West Street	Danford Road
North/South Street	80th Street Wesst
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		14	7	2		0	5	4		3	13	4		1	18	7
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type | Storage			Undivided													

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		15				0					21				27	
Capacity, c (veh/h)		1604				1604					883				891	
v/c Ratio		0.01				0.00					0.02				0.03	
95% Queue Length, Q_{95} (veh)		0.0				0.0					0.1				0.1	
Control Delay (s/veh)		7.3	0.1	0.1		7.2	0.0	0.0			9.2				9.2	
Level of Service (LOS)		A	A	A		A	A	A			A				A	
Approach Delay (s/veh)	4.4				0.0				9.2				9.2			
Approach LOS	A				A				A				A			

HCS Two-Way Stop-Control Report

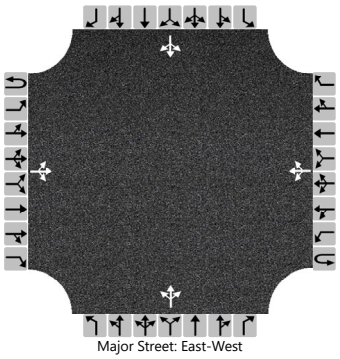
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	PM Hour Existing
Intersection Orientation	East-West
Project Description	Lazy KU Subdivision

Site Information

Intersection	80th Street W & Danford
Jurisdiction	ellowstone County
East/West Street	Danford Road
North/South Street	80th Street Wesst
Peak Hour Factor	0.91
Analysis Time Period (hrs)	0.25

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		9	5	1		8	9	1		3	25	13		3	19	21
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type | Storage			Undivided													

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		10				9					45				47	
Capacity, c (veh/h)		1602				1608					893				931	
v/c Ratio		0.01				0.01					0.05				0.05	
95% Queue Length, Q_{95} (veh)		0.0				0.0					0.2				0.2	
Control Delay (s/veh)		7.3	0.0	0.0		7.3	0.0	0.0			9.2				9.1	
Level of Service (LOS)		A	A	A		A	A	A			A				A	
Approach Delay (s/veh)	4.4				3.2				9.2				9.1			
Approach LOS	A				A				A				A			

APPENDIX C-2

Existing Plus Site Traffic Capacity Calculations

HCS Two-Way Stop-Control Report

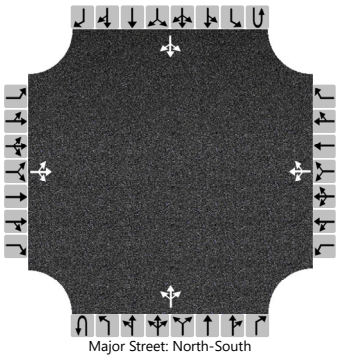
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	AM Existing Plus
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Street W & Neibauer
Jurisdiction	ellowstone County
East/West Street	Neibauer Road
North/South Street	72 nd Street Wesst
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		3	5	5		26	4	4		3	236	43		5	162	2
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			15				38			3				6		
Capacity, c (veh/h)			563				492			1384				1241		
v/c Ratio			0.03				0.08			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.1				0.3			0.0				0.0		
Control Delay (s/veh)			11.6				12.9			7.6	0.0	0.0		7.9	0.0	0.0
Level of Service (LOS)			B				B			A	A	A		A	A	A
Approach Delay (s/veh)	11.6				12.9				0.1				0.3			
Approach LOS	B				B				A				A			

HCS Two-Way Stop-Control Report

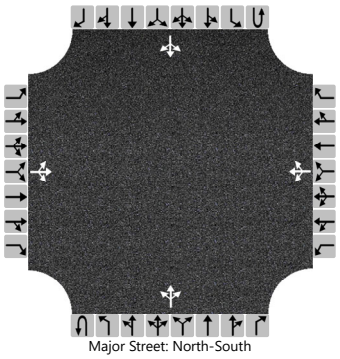
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	PM Existing Plus
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Street W & Neibauer
Jurisdiction	ellowstone County
East/West Street	Neibauer Road
North/South Street	72 nd Street Wesst
Peak Hour Factor	0.98
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		2	3	2		70	12	7		0	224	16		2	347	5
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			7				91			0				2		
Capacity, c (veh/h)			456				424			1194				1315		
v/c Ratio			0.02				0.21			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.0				0.8			0.0				0.0		
Control Delay (s/veh)			13.0				15.8			8.0	0.0	0.0		7.7	0.0	0.0
Level of Service (LOS)			B				C			A	A	A		A	A	A
Approach Delay (s/veh)	13.0				15.8				0.0				0.1			
Approach LOS	B				C				A				A			

HCS Two-Way Stop-Control Report

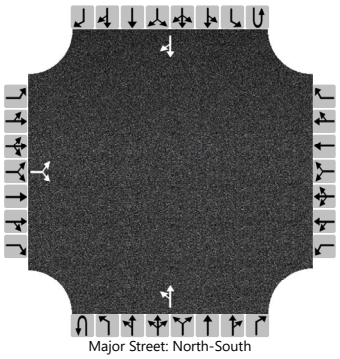
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	AM Existing Plus
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Dtreet w & Ron Kramer Dr
Jurisdiction	Yellowstone County
East/West Street	Ronald Kramer Drive
North/South Street	72nd Street West
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		13		2						0	266				186	4
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			17							0						
Capacity, c (veh/h)			548							1351						
v/c Ratio			0.03							0.00						
95% Queue Length, Q_{95} (veh)			0.1							0.0						
Control Delay (s/veh)			11.8							7.7	0.0					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)		11.8								0.0						
Approach LOS		B								A						

HCS Two-Way Stop-Control Report

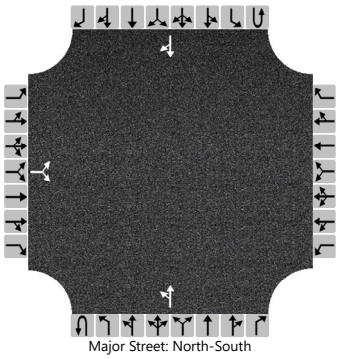
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	PM Existing Plus
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Dtreet w & Ron Kramer Dr
Jurisdiction	Yellowstone County
East/West Street	Ronald Kramer Drive
North/South Street	72nd Street West
Peak Hour Factor	0.98
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		8		3						2	232				404	16
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			11							2						
Capacity, c (veh/h)			466							1126						
v/c Ratio			0.02							0.00						
95% Queue Length, Q_{95} (veh)			0.1							0.0						
Control Delay (s/veh)			12.9							8.2	0.0					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)		12.9								0.1						
Approach LOS		B								A						

HCS Two-Way Stop-Control Report

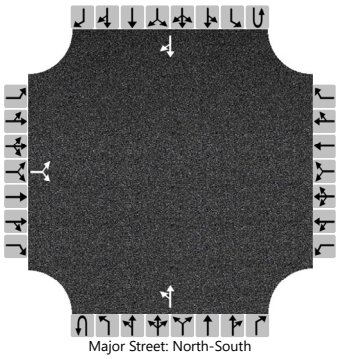
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	AM Existing Plus
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Dtreet w & Kramer Way
Jurisdiction	Yellowstone County
East/West Street	Kramer Way
North/South Street	72nd Street West
Peak Hour Factor	0.98
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		1		8						4	267				189	0
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			9							4						
Capacity, c (veh/h)			797							1374						
v/c Ratio			0.01							0.00						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			9.6							7.6	0.0					
Level of Service (LOS)			A							A	A					
Approach Delay (s/veh)		9.6								0.1						
Approach LOS		A								A						

HCS Two-Way Stop-Control Report

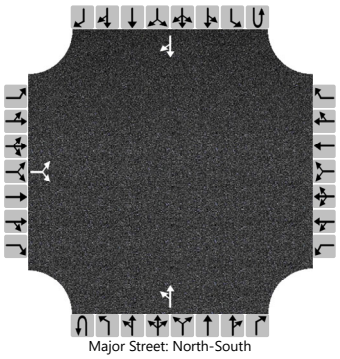
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	PM Plus Existing
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Dtreet w & Kramer Way
Jurisdiction	Yellowstone County
East/West Street	Kramer Way
North/South Street	72nd Street West
Peak Hour Factor	0.87
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		0		6						8	234				407	1
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			7							9						
Capacity, c (veh/h)			593							1087						
v/c Ratio			0.01							0.01						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			11.1							8.3	0.1					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)		11.1								0.4						
Approach LOS		B								A						

HCS Two-Way Stop-Control Report

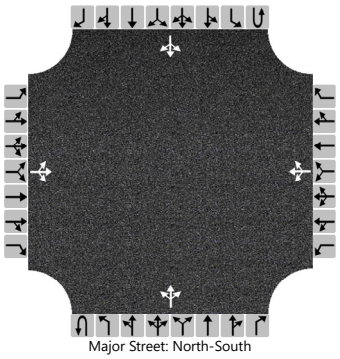
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	AM Existing Plus
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Street W & Danford
Jurisdiction	ellowstone County
East/West Street	Danford Road
North/South Street	72 nd Street Wesst
Peak Hour Factor	0.98
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		11	7	2		18	0	5		0	233	4		2	187	4
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			20				23			0				2		
Capacity, c (veh/h)			538				558			1372				1319		
v/c Ratio			0.04				0.04			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.1				0.1			0.0				0.0		
Control Delay (s/veh)			12.0				11.7			7.6	0.0	0.0		7.7	0.0	0.0
Level of Service (LOS)			B				B			A	A	A		A	A	A
Approach Delay (s/veh)	12.0				11.7				0.0				0.1			
Approach LOS	B				B				A				A			

HCS Two-Way Stop-Control Report

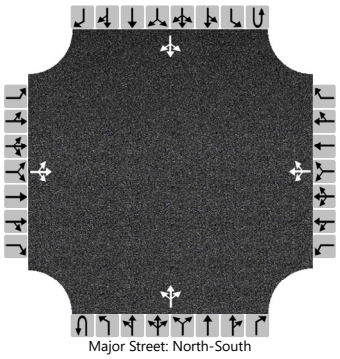
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	PM Existing Plus
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Street W & Danford
Jurisdiction	ellowstone County
East/West Street	Danford Road
North/South Street	72 nd Street Wesst
Peak Hour Factor	0.96
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		8	10	4		23	1	5		4	228	11		2	390	10
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			23				30			4				2		
Capacity, c (veh/h)			399				390			1137				1311		
v/c Ratio			0.06				0.08			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.2				0.3			0.0				0.0		
Control Delay (s/veh)			14.6				15.0			8.2	0.0	0.0		7.8	0.0	0.0
Level of Service (LOS)			B				B			A	A	A		A	A	A
Approach Delay (s/veh)	14.6				15.0				0.2				0.1			
Approach LOS	B				B				A				A			

APPENDIX C-3

Year 2033 Traffic Capacity Calculations

HCS Two-Way Stop-Control Report

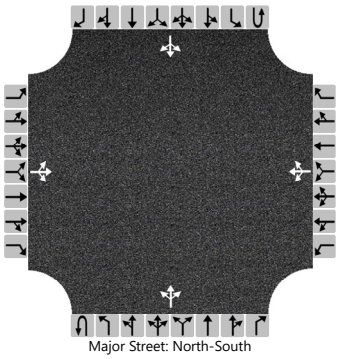
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2033
Time Analyzed	AM Year 2033
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Street W & Neibauer
Jurisdiction	ellowstone County
East/West Street	Neibauer Road
North/South Street	72 nd Street Wesst
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		4	6	6		32	5	5		4	294	54		6	202	2
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			18				47			4				7		
Capacity, c (veh/h)			481				409			1333				1162		
v/c Ratio			0.04				0.12			0.00				0.01		
95% Queue Length, Q_{95} (veh)			0.1				0.4			0.0				0.0		
Control Delay (s/veh)			12.8				15.0			7.7	0.0	0.0		8.1	0.1	0.1
Level of Service (LOS)			B				B			A	A	A		A	A	A
Approach Delay (s/veh)	12.8				15.0				0.1				0.3			
Approach LOS	B				B				A				A			

HCS Two-Way Stop-Control Report

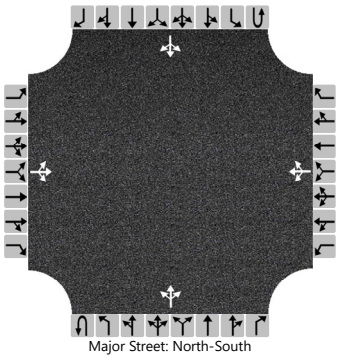
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2033
Time Analyzed	PM Year 2033
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Street W & Neibauer
Jurisdiction	ellowstone County
East/West Street	Neibauer Road
North/South Street	72 nd Street Wesst
Peak Hour Factor	0.98
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		2	4	2		87	15	9		0	284	19		2	430	6
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			8				113			0				2		
Capacity, c (veh/h)			368				339			1110				1246		
v/c Ratio			0.02				0.33			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.1				1.4			0.0				0.0		
Control Delay (s/veh)			15.0				20.8			8.2	0.0	0.0		7.9	0.0	0.0
Level of Service (LOS)			C				C			A	A	A		A	A	A
Approach Delay (s/veh)	15.0				20.8				0.0				0.1			
Approach LOS	C				C				A				A			

HCS Two-Way Stop-Control Report

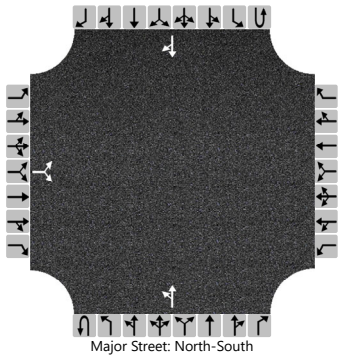
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2033
Time Analyzed	AM Year 2033
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Dtreet w & Ron Kramer Dr
Jurisdiction	Yellowstone County
East/West Street	Ronald Kramer Drive
North/South Street	72nd Street West
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		19		3						0	333				234	6
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			25							0						
Capacity, c (veh/h)			465							1288						
v/c Ratio			0.05							0.00						
95% Queue Length, Q_{95} (veh)			0.2							0.0						
Control Delay (s/veh)			13.2							7.8	0.0					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)		13.2								0.0						
Approach LOS		B								A						

HCS Two-Way Stop-Control Report

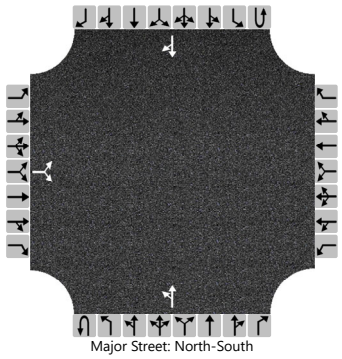
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2033
Time Analyzed	PM Year 2033
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Dtreet w & Ron Kramer Dr
Jurisdiction	Yellowstone County
East/West Street	Ronald Kramer Drive
North/South Street	72nd Street West
Peak Hour Factor	0.98
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		10		4						3	293				503	20
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			14							3						
Capacity, c (veh/h)			380							1029						
v/c Ratio			0.04							0.00						
95% Queue Length, Q_{95} (veh)			0.1							0.0						
Control Delay (s/veh)			14.8							8.5	0.0					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)		14.8								0.1						
Approach LOS		B								A						

HCS Two-Way Stop-Control Report

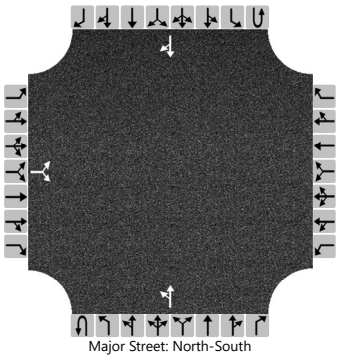
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2033
Time Analyzed	AM Year 2033
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Dtreet w & Kramer Way
Jurisdiction	Yellowstone County
East/West Street	Kramer Way
North/South Street	72nd Street West
Peak Hour Factor	0.98
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		1		10						5	332				237	0
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			11							5						
Capacity, c (veh/h)			747							1319						
v/c Ratio			0.02							0.00						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			9.9							7.7	0.0					
Level of Service (LOS)			A							A	A					
Approach Delay (s/veh)		9.9								0.2						
Approach LOS		A								A						

HCS Two-Way Stop-Control Report

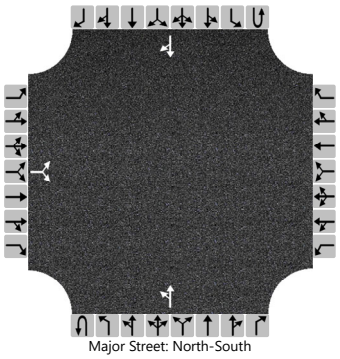
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2033
Time Analyzed	PM Year 2033
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Dtreet w & Kramer Way
Jurisdiction	Yellowstone County
East/West Street	Kramer Way
North/South Street	72nd Street West
Peak Hour Factor	0.87
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		0		7						10	296				506	1
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			8							11						
Capacity, c (veh/h)			511							987						
v/c Ratio			0.02							0.01						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			12.2							8.7	0.1					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)		12.2								0.4						
Approach LOS		B								A						

HCS Two-Way Stop-Control Report

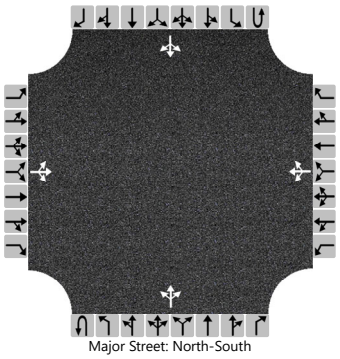
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	AM Year 2033
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Street W & Danford
Jurisdiction	ellowstone County
East/West Street	Danford Road
North/South Street	72 nd Street Wesst
Peak Hour Factor	0.98
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		14	9	2		20	0	7		0	289	5		2	232	5
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			26				28			0				2		
Capacity, c (veh/h)			460				487			1319				1255		
v/c Ratio			0.06				0.06			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.2				0.2			0.0				0.0		
Control Delay (s/veh)			13.3				12.8			7.7	0.0	0.0		7.9	0.0	0.0
Level of Service (LOS)			B				B			A	A	A		A	A	A
Approach Delay (s/veh)	13.3				12.8				0.0				0.1			
Approach LOS	B				B				A				A			

HCS Two-Way Stop-Control Report

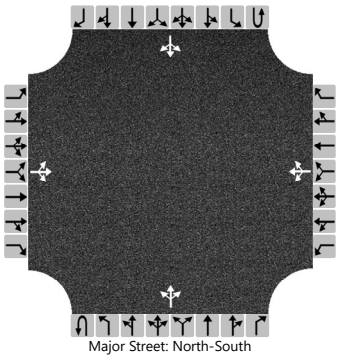
General Information

Analyst	R Marvin
Agency/Co.	Marvin & Associates
Date Performed	7/25/2023
Analysis Year	2023
Time Analyzed	PM Year 2033
Intersection Orientation	North-South
Project Description	Lazy KU Subdivision

Site Information

Intersection	72nd Street W & Danford
Jurisdiction	ellowstone County
East/West Street	Danford Road
North/South Street	72 nd Street Wesst
Peak Hour Factor	0.96
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		10	12	5		29	1	5		5	284	14		2	484	10
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			28				36			5				2		
Capacity, c (veh/h)			320				297			1046				1244		
v/c Ratio			0.09				0.12			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.3				0.4			0.0				0.0		
Control Delay (s/veh)			17.3				18.8			8.5	0.1	0.1		7.9	0.0	0.0
Level of Service (LOS)			C				C			A	A	A		A	A	A
Approach Delay (s/veh)	17.3				18.8				0.2				0.1			
Approach LOS	C				C				A				A			

BLOCK	LOT	ACRES	7.50%	5.00%	2.50%
Block 1	Lot 1	1.54		0.08	
	Lot 2	1.00		0.05	
	Lot 3	1.82		0.09	
	Lot 4	1.70		0.09	
	Lot 5	1.80		0.09	
	Lot 6	2.16		0.11	
	Lot 7	2.33		0.18	
	Lot 8	1.26		0.06	
Block 2	Lot 1	1.00		0.05	
	Lot 2	1.00		0.05	
	Lot 3	1.00		0.05	
	Lot 4	0.99	0.07		
	Lot 5	1.00		0.05	
	Lot 6	1.00		0.05	
	Lot 7	1.02		0.05	
	Lot 8	1.01		0.05	
	Lot 9	1.02		0.05	
	Lot 10	1.02		0.05	
	Lot 11	1.02		0.05	
	Lot 12	1.02		0.05	
Block 3	Lot 1	1.00		0.05	
	Lot 2	1.00		0.05	
	Lot 3	1.00		0.05	
	Lot 4	1.00		0.05	
	Lot 5	1.09		0.05	
	Lot 6	1.10		0.06	
	Lot 7	5.89			
Block 4	Lot 1	2.24		0.11	
	Lot 2	1.46		0.07	
	Lot 3	1.46		0.07	
	Lot 4	1.46		0.07	
	Lot 5	1.45		0.07	
	Lot 12A	3.60			0.09
TOTAL		45.86	0.07	2.01	0.09

Park needed	Surplus	2nd Filing
2.18	0.93	1.25

WWC ENGINEERING
550 S. 24th STREET W., SUITE 201, BILLINGS, MT 59102 | 406.894.2210

Memo

TO: Laurel Planning Department

FROM: Aaron Redland, WWC Engineering

DATE: August 28, 2023

SUBJECT: Lazy KU Subdivision, 2nd Filing

The purpose of this memo is to provide clarification and additional information on Lazy KU Subdivision, 2nd Filing preliminary plat submittal:

- A copy of the preliminary DEQ site plan is included with this submittal that will be submitted to MDEQ for review and approval. The report will provide data that the septic systems, individual wells, and the stormwater facility are designed according to the current MDEQ regulations. The site plan also depicts the locations of the MDEQ approved layout for Lazy KU Subdivision and surrounding systems.
- The water quality test results that are being utilized for the design of the individual septic systems and wells are included with this submittal.
- There will be separate Declarations of Conditions, Covenants, and Restrictions filed for Lazy KU Subdivision, 2nd Filing. A copy of the draft document is included in this submittal.
- There will be no Homeowners Association with this subdivision.
- Based on the current site restrictions, there is no specific master plan of the future filings for the Lazy KU Subdivision. The future filings of the subdivision will be determined as the project progresses and the site restrictions are minimal.

July 28, 2022

Yellowstone County
Board of County Commissioners

The purpose of this letter is to request the expansion of the existing RSID's to include the lots listed below for maintenance of the existing dry hydrant, park area, and the existing and new roads within Lazy KU Subdivision, 2nd Filing. The new public roads within the subdivision will be Haystack Lane, Granary Drive, and Barbed Wire Drive.

RSID 869 – Roads and Stormwater

- Lots 1 through 8 of Block 1 of Lazy KU Subdivision, 2nd Filing
- Lots 1 through 12 of Block 2 of Lazy KU Subdivision, 2nd Filing
- Lots 1 through 7 of Block 3 of Lazy KU Subdivision, 2nd Filing
- Lots 1 through 5 of Block 4 of Lazy KU Subdivision, 2nd Filing

RSID 870 – Dry Hydrant

- Lots 1 through 8 of Block 1 of Lazy KU Subdivision, 2nd Filing
- Lots 1 through 12 of Block 2 of Lazy KU Subdivision, 2nd Filing
- Lots 1 through 7 of Block 3 of Lazy KU Subdivision, 2nd Filing
- Lots 1 through 5 of Block 4 of Lazy KU Subdivision, 2nd Filing

RSID 871 – Parkland

- Lots 1 through 8 of Block 1 of Lazy KU Subdivision, 2nd Filing
- Lots 1 through 12 of Block 2 of Lazy KU Subdivision, 2nd Filing
- Lots 1 through 7 of Block 3 of Lazy KU Subdivision, 2nd Filing
- Lots 1 through 5 of Block 4 of Lazy KU Subdivision, 2nd Filing

We appreciated your consideration for this request. If additional information is required, please contact Aaron Redland with WWC Engineering at 406-671-5606.

_____

Lazy KU Estates LLC

MAPLE FALLS LANDSCAPING CORP.
2517 ARNOLD LN.
BILLINGS, MT 59102

NATHAN TEMPLE
20 BUS LN.
LAUREL, MT 59044

JARED AUSTFJORD
2737 MEADOW DR.
LAUREL, MT 59044

KRISTA & JUSTIN WITFIELD
2105 SADDLEBACK DR.
LAUREL, MT 59044

LAZY KU ESTATES LLC
3116 2. 72ND ST. W.
BILLINGS, MT 59106

CHERRYL ANN KRAMER REV TRST
3116 S. 72ND ST. W.
BILLINGS, MT 59106

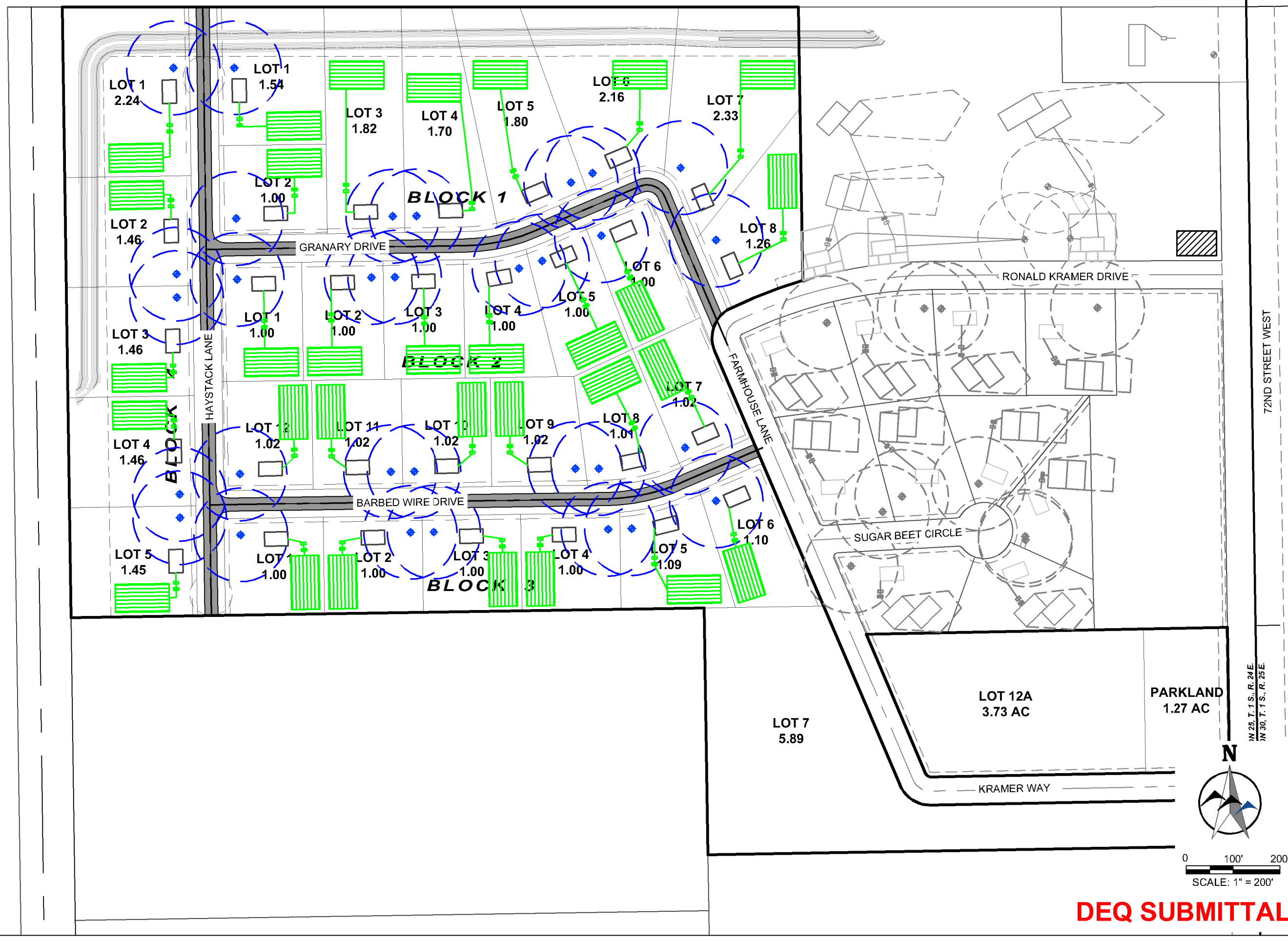
GERALD VICTOR MILLER
15542 MANCHSTER DR.
LAKE OSWEGO, OR 97035

ROBERTA BURBANK & TERESA AMSBAUGH
3019 DUPORTAIL ST. #189
RICHLAND, WA 99352

EDWARD & ROXANA KRAFT LVG TRST
7428 NEIBAUER RD.
BILLINGS, MT 59106

WILLIAM & BARBARA HOPE
518 JACKSON ST
BILLINGS, MT 59101

K:\Billings\Krushensky, Jerry\20223123 Lazy KU 2nd Filing\05CAD\Sheets\20223123-LKU-2ND SSWR-LYOT.dwg SITE LAYOUT 9/1/2023 10:15:06 AM



DEQ SUBMITTAL

NO.	REVISION	BY	DATE

PROJECT NO. 2023-123

PREPARED BY
WWC ENGINEERING
550 S. 24TH ST. W., SUITE 201
BILLINGS, MT 59102
(406) 894-2210
www.wwcengineering.com

JERRY KRUSHENSKY
LAZY KU SUBDIVISION 2ND FILING
SITE LAYOUT
BILLINGS, MT

DESIGNED BY: ZSL
DRAWN BY: ZSL
CHECKED BY: GTR
DATE: 8/9/2023

SHEET
1

RIMROCK
ENGINEERING, INC.

PRELIMINARY GEOTECHNICAL ENGINEERING REPORT

Lazy KU Subdivision 2nd Filing
72nd Street West
Laurel, Montana

August 30, 2023
Project No. G23129

Prepared for:

WWC Engineering
550 S. 24th Street W., Suite 201
Billings, Montana 59102

Prepared by:

Rimrock Engineering, Inc.
5440 Holiday Avenue
Billings, Montana 59101

RIMROCK ENGINEERING, INC.

5440 Holiday Avenue · Billings, Montana 59101: · Phone: 406.294.8400 · www.rimrock.biz

August 30, 2023

Mr. Greg Reid, P.E.
WWC Engineering
550 S. 24th Street W., Suite 201
Billings, Montana 59102

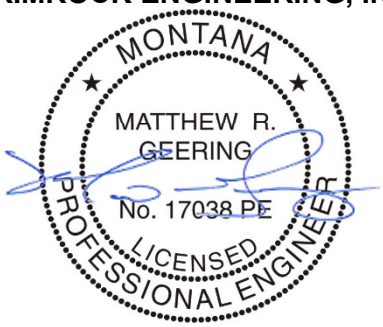
Re: Preliminary Geotechnical Engineering Report
Lazy KU Subdivision 2nd Filing
72nd Street West
Laurel, Montana

Dear Greg:

Rimrock Engineering, Inc. has completed the preliminary geotechnical engineering services for the referenced project. The attached report presents the results of our findings. Our work consisted of subsurface exploration, laboratory testing, engineering analyses, and preparation of this report.

We appreciate this opportunity to be of service to you and are prepared to provide design level geotechnical engineering and construction materials testing services during the construction phase of the project. If you have any questions regarding this report or need additional information or services, please contact us.

Sincerely,
RIMROCK ENGINEERING, INC.



Matt Geering, P.E.
Principal/Vice President

Wade Reynolds
Principal/President

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GEOTECHNICAL ENGINEERING REPORT

Lazy KU Subdivision 2nd Filing
72nd Street West
Laurel, Montana

1.0 INTRODUCTION AND SCOPE

1.1 Project Description

The project consists of possible development of Lazy KU Subdivision, 2nd Filing to be located along 72nd Street West in Laurel, Montana. The subdivision is expected to consist of about 31 lots with associated streets and utilities.

1.2 Purpose and Scope of Work

The purpose of these studies will be to perform a limited geotechnical investigation and provide preliminary geotechnical information for due diligence considerations and to provide information, opinions, and geotechnical engineering recommendations relative to:

- General soil and groundwater conditions
- Possible foundation alternatives and limitations

Our scope of services consisted of background review, site reconnaissance, field exploration, laboratory testing, engineering analyses, and preparation of this report.

2.0 INVESTIGATION

2.1 Field Exploration

The subsurface exploration consisted of drilling six (6) borings on August 18, 2023 to approximately 20 feet below existing grades. The borings were drilled using our truck mounted drill rig equipped with hollow stem and solid flight augers. Groundwater levels were measured during drilling operations, if encountered. Upon completion of drilling and/or groundwater measurements, the borings were backfilled with drill cuttings and compacted with the equipment at hand.

Logs of the borings along with a Vicinity/Site Map are included in Appendix A. The borings were located in the field by Rimrock Engineering based on information provided. Ground surface elevations were set at 100 for purposes of this investigation. The locations and elevations of the borings should be considered accurate only to the degree implied by the means and methods used to define them.

Rimrock Engineering personnel logged the soil conditions encountered in the borings. At selected intervals, samples of the subsurface materials were taken by driving split-spoon samplers, pushing Shelby tube samplers, and collecting auger cuttings. Penetration resistance measurements were obtained by driving the samplers into the subsurface materials with a 140-pound automatic hammer falling 30 inches. The penetration resistance value is a useful index in estimating the relative density, or consistency, of the materials encountered. The samples were tagged for identification, sealed to reduce moisture loss, and taken to our laboratory for further examination, testing, and classification.

2.2 Laboratory Testing

The purpose of the laboratory testing is to assess the physical and engineering properties of the soil samples collected in the field to be used in our geotechnical evaluations and analyses. Laboratory testing was performed on selected soil samples to assess the following:

- Visual classification (USCS)
- Moisture content
- Atterberg limits
- Sieve analysis

The soil descriptions presented on the boring log are in accordance with the Unified Soil Classification System (USCS) and Key. Individual laboratory test results can be found in Appendix B at the end of this report.

3.0 SITE & SUBSURFACE CONDITIONS

3.1 Site Conditions

The site consists of vacant property located along 72nd Street West north of Danford Road in Laurel, Montana. The site consists of agricultural farm fields. The site generally slopes to the south towards Danford. The surrounding areas consist mainly of agricultural fields and residential developments.

3.2 Subsurface Soil Conditions

Based on the materials encountered in our borings, the subsurface profile generally consists of about 7.5 to 13 feet of stiff lean clay soils overlying dense gravels which extended to the maximum depths explored of about 20 feet.

The subsurface clay soils had Standard Penetration Test (SPT) N-values in the range of 15 to 22 blows per foot which indicates the soils to be variably stiff in consistency, have moderate to high compressibility, and low shear strength characteristics. For a more detailed description of the subsurface conditions, please refer to the logs provided in Appendix A.

3.3 Groundwater Conditions

The borings were observed while drilling and after completion for the presence and level of groundwater. Groundwater was encountered at approximately 7.5 to 10 feet below grade while drilling or for the short duration the borings were allowed to remain open. These observations represent groundwater conditions at the time of the field exploration and may not be indicative of other times, or at other locations. Groundwater can be expected to fluctuate with varying seasonal, weather and irrigation conditions. Evaluation of the factors that affect groundwater fluctuations is beyond the scope of this report.

3.4 Laboratory Test Results

The site soils were tested for grain size distribution (sieve analysis) and Atterberg Limits. Atterberg limits are a basic measure of the critical water contents of a fine-grained soils. The site soils encountered in the borings generally have medium to high plasticity. Results are summarized below:

Location	Depth (ft)	USCS	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Gravel (%)	Sand (%)	Clay/Silt (%)
B-4	4.5	CL	37	18	19	0.3	6.4	93.3

4.0 PRELIMINARY FINDINGS AND RECOMMENDATIONS

Excavations across the site will generally encounter stiff, medium to high plasticity clay soils. Depending on depth of excavations, dense gravels and groundwater may be encountered. It is anticipated that excavations for the proposed construction can be accomplished with conventional earthmoving equipment such as tractor mounted backhoes and tracked excavators.

Lean clay soils were encountered at or near anticipated footing and slab elevations across the site. The site soils are expected to be moderately to highly compressible and potentially collapsible. Additionally, shallow groundwater was encountered. Due to these conditions, deep foundations such as helical piers extending to the underlying gravel stratum or rammed aggregate piers are potential options for structures on this site. Also, basement construction may not be feasible.

Another common foundation alternative based on the conditions described above is to utilize shallow spread footing foundations bearing on a zone of geotextile reinforced structural fill. Depth of structural fill varies with anticipated structural loading and subsurface conditions. An allowable bearing capacity for foundations bearing on structural fill generally ranges from 1,500 to 2,500 psf, depending on site specific subsurface conditions, foundation loading, and thickness of the structural fill zone. Regardless of the subsurface conditions, good surface drainage is important and should be maintained throughout the life of the structures.

It is anticipated that pavement subgrade soils will consist of clay soils which are typically considered poor materials for pavement support. Depending on anticipated traffic loads and subgrade strength parameters, subgrade stabilization may be required for pavement construction at the site.

Site-specific design level geotechnical investigations should be performed once specific project design information has been established.

5.0 LIMITATIONS

Recommendations contained in this report are based on our field explorations, laboratory tests, and our understanding of the proposed construction. The study was performed using a mutually agreed upon scope of work. It is our opinion that this study was a cost-effective method to evaluate the subject site and evaluate some of the potential geotechnical concerns.

The soils data used in the preparation of this report were obtained from borings made for this investigation. It is possible that variations in soils exist between the points explored. The nature and extent of soil variations may not be evident until construction occurs.

This report may be used only by the Client and for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both on- and off-site), or other factors including advances in man's understanding of applied science may change over time and could materially affect our findings. Therefore, this report should not be relied upon after 36 months from its issue. Rimrock Engineering should be notified if the project is delayed by more than 24 months from the date of this report so that a review of site conditions can be made, and recommendations revised if appropriate.

It is the Client's responsibility to see that all parties to the project including the designer, contractor, subcontractors, etc., are made aware of this report in its entirety. The use of information contained in this report for bidding purposes should be done at the Contractor's option and risk. Any party other than the Client who wishes to use this report shall notify Rimrock Engineering of such intended use. Based on the intended use of the report, Rimrock Engineering may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the Client or anyone else will release Rimrock Engineering from any liability resulting from the use of this report by any unauthorized party.

APPENDIX A

Field Exploration

Rimrock Engineering, Inc.
5440 Holiday Avenue
Billings, MT 59101 Tel. (406) 294-8400

PROJECT NO. G23129

VICINITY/SITE MAP

LAZY KU SUBDIVISION 2ND - PRELIMINARY
72nd Street
Billings, Montana

N

BORING NUMBER B-1

Rimrock Engineering, Inc.
5440 Holiday Avenue
Billings, MT 59101

CLIENT WWC
PROJECT NAME Lazy KU Subdivision 2nd Filing
PROJECT NUMBER G23129
PROJECT LOCATION Billings, MT
DATE STARTED 8/18/23 **COMPLETED** 8/18/23
GROUND ELEVATION 100 ft **HOLE SIZE** 5 inches
DRILLING CONTRACTOR Rimrock Engineering, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Solid Stem Auger
▽ **AT TIME OF DRILLING** 10.00 ft / Elev 90.00 ft
LOGGED BY W.R. **CHECKED BY** M.G.
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		TOPSOIL										
		(CL) LEAN CLAY Brown, stiff, medium to high plasticity, some fine sand, trace gravel.										
5			SPT	100	8-10-12 (22)			15				
10	▽											
		(GP-GM) POORLY GRADED GRAVEL with SILT and SAND Gray/brown, dense, subrounded.										
15												
20												

Bottom of borehole at 20.0 feet.

Rimrock Engineering, Inc.
5440 Holiday Avenue
Billings, MT 59101

BORING NUMBER B-2

CLIENT WWC
PROJECT NAME Lazy KU Subdivision 2nd Filing
PROJECT NUMBER G23129
PROJECT LOCATION Billings, MT
DATE STARTED 8/18/23 **COMPLETED** 8/18/23
GROUND ELEVATION 100 ft **HOLE SIZE** 5 inches
DRILLING CONTRACTOR Rimrock Engineering, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Solid Stem Auger
▽ **AT TIME OF DRILLING** 8.00 ft / Elev 92.00 ft
LOGGED BY W.R. **CHECKED BY** M.G.
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		TOPSOIL										
		(CL) LEAN CLAY Brown, stiff, medium to high plasticity, some fine sand, trace gravel.	SPT	100	8-10-10 (20)			14				
5			SPT	100	6-9-6 (15)			14				
		▽										
10		(GP-GM) POORLY GRADED GRAVEL with SILT and SAND Gray/brown, dense, subrounded.	SPT	100	11-28-22 (50)			9				
15												
20												

Bottom of borehole at 20.0 feet.

Rimrock Engineering, Inc.
5440 Holiday Avenue
Billings, MT 59101

BORING NUMBER B-3

CLIENT WWC
PROJECT NAME Lazy KU Subdivision 2nd Filing
PROJECT NUMBER G23129
PROJECT LOCATION Billings, MT
DATE STARTED 8/18/23 **COMPLETED** 8/18/23
GROUND ELEVATION 100 ft **HOLE SIZE** 5 inches
DRILLING CONTRACTOR Rimrock Engineering, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Solid Stem Auger
▽ **AT TIME OF DRILLING** 8.00 ft / Elev 92.00 ft
LOGGED BY W.R. **CHECKED BY** M.G.
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		TOPSOIL										
		(CL) LEAN CLAY Brown, stiff, medium to high plasticity, some fine sand, trace gravel.										
5												
		▽ (GP-GM) POORLY GRADED GRAVEL with SILT and SAND Gray/brown, dense, subrounded.	AU									
10												
15												
20												

Bottom of borehole at 20.0 feet.

Rimrock Engineering, Inc.
5440 Holiday Avenue
Billings, MT 59101

BORING NUMBER B-4

CLIENT WWC
PROJECT NAME Lazy KU Subdivision 2nd Filing
PROJECT NUMBER G23129
PROJECT LOCATION Billings, MT
DATE STARTED 8/18/23 **COMPLETED** 8/18/23
GROUND ELEVATION 100 ft **HOLE SIZE** 5 inches
DRILLING CONTRACTOR Rimrock Engineering, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Solid Stem Auger
▽ **AT TIME OF DRILLING** 7.50 ft / Elev 92.50 ft
LOGGED BY W.R. **CHECKED BY** M.G.
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		TOPSOIL										
		(CL) LEAN CLAY Brown, stiff, medium to high plasticity, some fine sand, trace gravel.	SPT	100	3-6-12 (18)			17				
5			SPT	100	4-5-16 (21)			20	37	18	19	93
		▽ (GP-GM) POORLY GRADED GRAVEL with SILT and SAND Gray/brown, dense, subrounded.	SPT	100	8-10-13 (23)			5				
10												
15												
20												

Bottom of borehole at 20.0 feet.

Rimrock Engineering, Inc.
5440 Holiday Avenue
Billings, MT 59101

BORING NUMBER B-5

CLIENT WWC
PROJECT NAME Lazy KU Subdivision 2nd Filing
PROJECT NUMBER G23129
PROJECT LOCATION Billings, MT
DATE STARTED 8/18/23 **COMPLETED** 8/18/23
GROUND ELEVATION 100 ft **HOLE SIZE** 5 inches
DRILLING CONTRACTOR Rimrock Engineering, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Solid Stem Auger
▽ **AT TIME OF DRILLING** 8.00 ft / Elev 92.00 ft
LOGGED BY W.R. **CHECKED BY** M.G.
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		TOPSOIL										
		(CL) LEAN CLAY Brown, stiff, medium to high plasticity, some fine sand, trace gravel.										
5		▽										
		(GP-GM) POORLY GRADED GRAVEL with SILT and SAND Gray/brown, dense, subrounded.	AU									
10												
15												
20												

Bottom of borehole at 20.0 feet.

Rimrock Engineering, Inc.
5440 Holiday Avenue
Billings, MT 59101

BORING NUMBER B-6

CLIENT WWC
PROJECT NAME Lazy KU Subdivision 2nd Filing
PROJECT NUMBER G23129
PROJECT LOCATION Billings, MT
DATE STARTED 8/18/23 **COMPLETED** 8/18/23
GROUND ELEVATION 100 ft **HOLE SIZE** 5 inches
DRILLING CONTRACTOR Rimrock Engineering, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Solid Stem Auger
▽ **AT TIME OF DRILLING** 8.00 ft / Elev 92.00 ft
LOGGED BY W.R. **CHECKED BY** M.G.
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		TOPSOIL										
		(CL) LEAN CLAY Brown, stiff, medium to high plasticity, some fine sand, trace gravel.										
5												
	▽											
10		(GP-GM) POORLY GRADED GRAVEL with SILT and SAND Gray/brown, dense, subrounded.	AU									
15												
20		Bottom of borehole at 20.0 feet.										

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 8/30/23 10:34 - G:\PROJECTS\2023\G23129.GPJ

KEY TO SYMBOLS

Rimrock Engineering, Inc.
5440 Holiday Avenue
Billings, MT 59101

CLIENT WWC **PROJECT NAME** Lazy KU Subdivision 2nd Filing

PROJECT NUMBER G23129 **PROJECT LOCATION** Billings, MT

LITHOLOGIC SYMBOLS (Unified Soil Classification System)


CL: USCS Low Plasticity Clay


GP-GM: USCS Poorly-graded Gravel with Silt


TOPSOIL: Topsoil

SAMPLER SYMBOLS


Auger Cuttings


Standard Penetration Test

WELL CONSTRUCTION SYMBOLS

ABBREVIATIONS

LL - LIQUID LIMIT (%)
PI - PLASTIC INDEX (%)
W - MOISTURE CONTENT (%)
DD - DRY DENSITY (PCF)
NP - NON PLASTIC
-200 - PERCENT PASSING NO. 200 SIEVE
PP - POCKET PENETROMETER (TSF)

TV - TORVANE
PID - PHOTOIONIZATION DETECTOR
UC - UNCONFINED COMPRESSION
ppm - PARTS PER MILLION


Water Level at Time Drilling, or as Shown


Water Level at End of Drilling, or as Shown


Water Level After 24 Hours, or as Shown

APPENDIX B

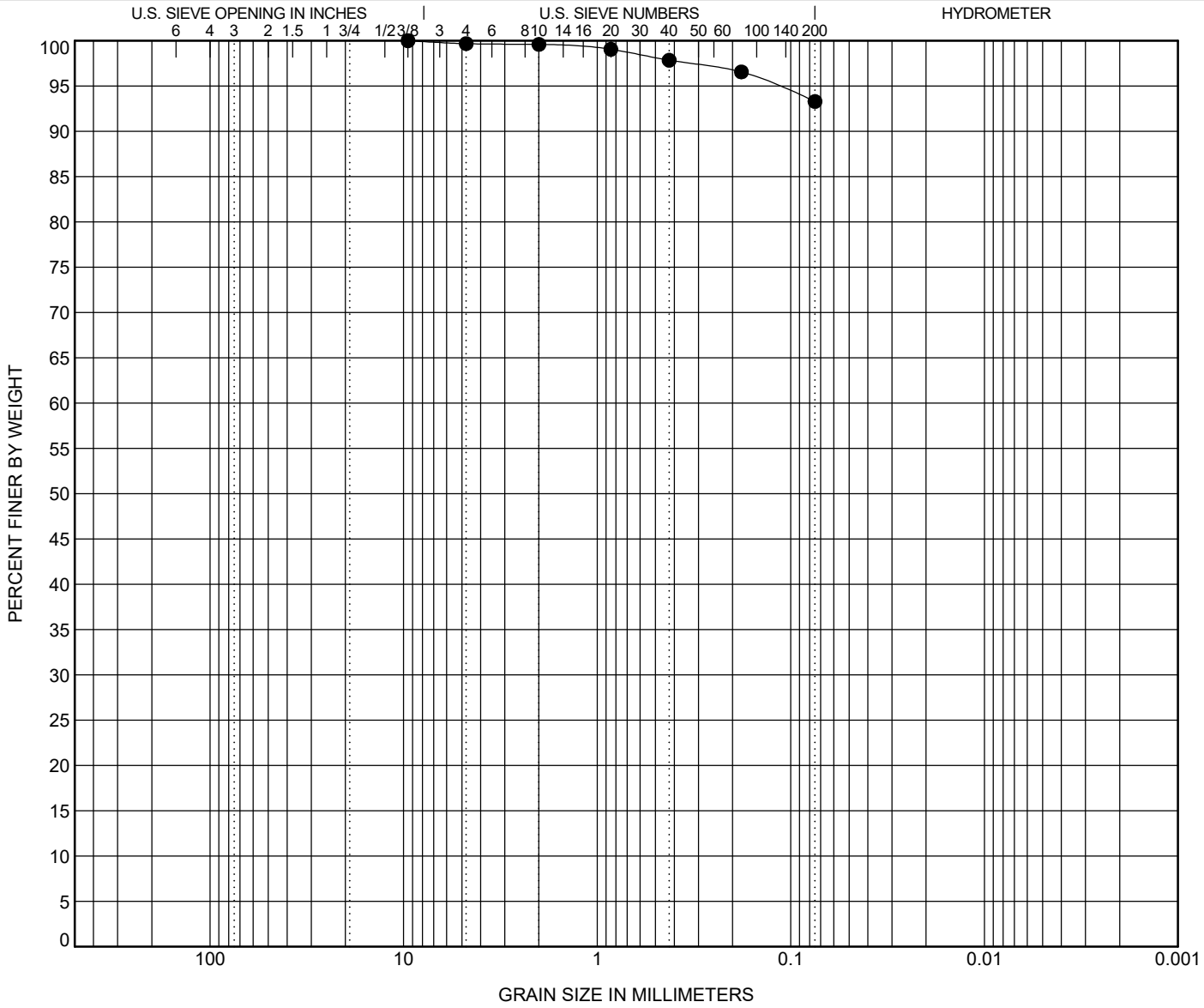
Laboratory Test Results

GRAIN SIZE DISTRIBUTION

Rimrock Engineering, Inc.
5440 Holiday Avenue
Billings, MT 59101

CLIENT WWC **PROJECT NAME** Lazy KU Subdivision 2nd Filing

PROJECT NUMBER G23129 **PROJECT LOCATION** Billings, MT



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	**B-4**	**4.5**	**LEAN CLAY(CL)**	**37**	**18**	**19**		

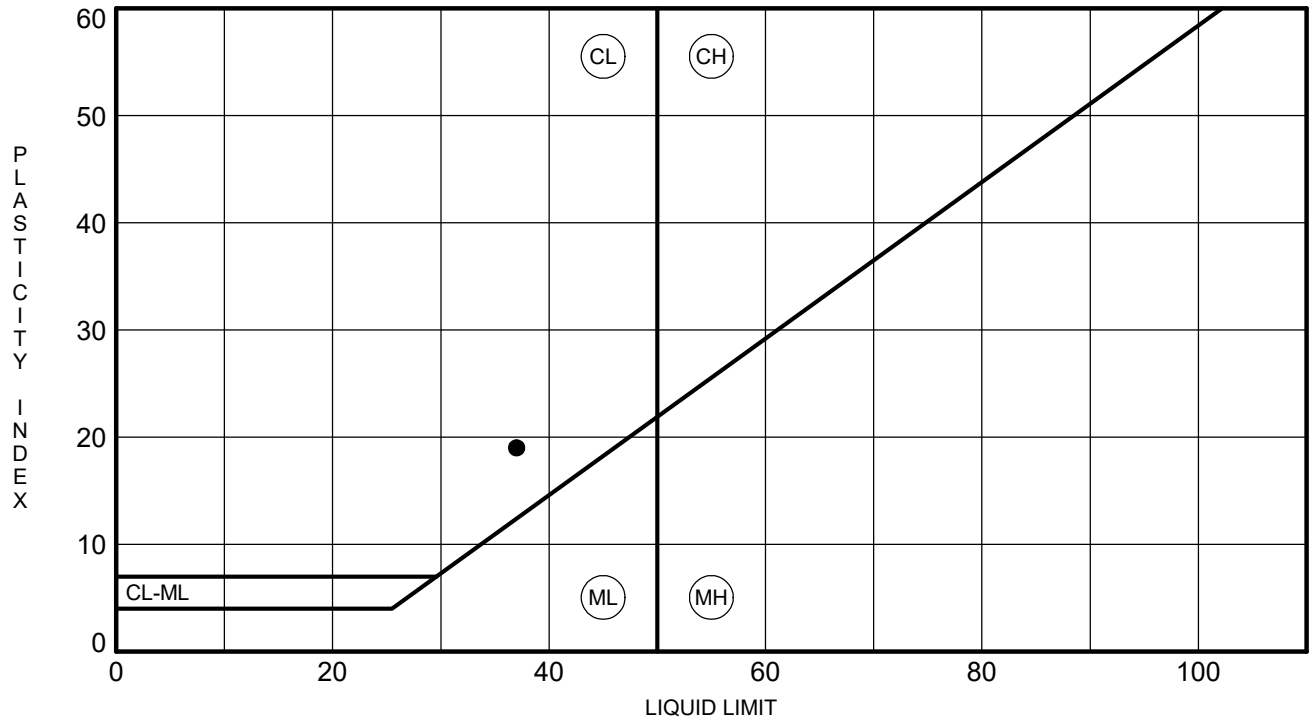
	BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**B-4**	**4.5**	**9.5**				**0.3**	**6.4**	**93.3**	

ATTERBERG LIMITS' RESULTS

Rimrock Engineering, Inc.
5440 Holiday Avenue
Billings, MT 59101

CLIENT WWC **PROJECT NAME** Lazy KU Subdivision 2nd Filing

PROJECT NUMBER G23129 **PROJECT LOCATION** Billings, MT



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B-4**	**4.5**	**37**	**18**	**19**	**93**	**LEAN CLAY(CL)**

LAUREL CITY-COUNTY PLANNING DEPARTMENT

STAFF REPORT & FINDINGS OF FACT

TO: Laurel City-County Planning Board
FROM: Kurt Markegard, Planning Director
RE: Major Preliminary Plat – Lazy KU Subdivision 2nd Filing
DATE: October 16th, 2023

DESCRIPTION OF REQUEST

A Major Preliminary Plat application and document packet was submitted by WWC Engineering on behalf of Cheryl Ann Kramer on September 8th, 2023. The 32-lot subdivision is located north of the intersection of Danford Rd. and 72nd Street West, legally described as tract 5 of COS 2301 and lot 12 of Lazy KU Subdivision situated in the S.E ¼ of S25, T01 S, R24 E, the subdivision is located within the Laurel City-County Planning Jurisdiction. This subdivision is the second filing of land adjacent to Lazy KU Subdivision which was recently approved for subdivision. Houses are being built in the first subdivision and the property owner has found a partnership to complete an adjacent subdivision called the Lazy KU Subdivision 2nd Filing.

The applicant has provided all the supporting subdivision elements as per Appendix F of the Laurel-Yellowstone County Subdivision Regulations. The documents provided by the applicant were deemed sufficient by The Laurel Planning Director and could proceed to public hearing at the Laurel City-County Planning Board.

Owner:	Cheryl Kramer
Legal Description:	Tract 5 of COS 2301 and lot 12 of Lazy KU Subdivision situated in the S.E ¼ of S25, T01 S, R24 E
Subdivision size:	55.96 gross
Existing Land Use:	Agricultural, Vacant
Proposed Land Use:	Residential Subdivision

BACKGROUND AND PROCEDURAL HISTORY

- Subdivision Pre-application meeting on June 22, 2023
- Subdivision Application complete on September 8, 2023

- All submitted information was forwarded to County Departments on September 13, 2023
- Element Review Letter was sent to WWC on September 13, 2023
- Sufficiency Review Letter was submitted to WWC Engineering on October 6, 2023.
- A Public Hearing for the review of the Lazy KU Subdivision 2nd Filing has been scheduled at the Planning Board meeting on October 18,2023

STAFF FINDINGS

1. The Developer has submitted a Major Preliminary Plat Application and supporting documents.
2. The Application was found to contain all the necessary elements and an element review letter was submitted to the Applicant on September 13, 2023.
3. The Application and its supporting documentation were found to be sufficient for review by the Planning Board and Governing Body.
4. A sufficiency Review letter was submitted to the Applicant on October 6, 2023.
5. The Major Preliminary Plat for the Lazy KU Subdivision contains:
    a. The Major Preliminary Plat consists of 32 lots and a reduction of Lot 12, Lazy KU Subdivision to facilitate more Parkland dedication as required the Laurel-Yellowstone County Subdivision regulations.
    b. Subdivision Improvement Agreement.
    c. Environmental Assessment
    d. Weed Management Plan included in the SIA.
    e. Water/Wastewater design and construction plans pending DEQ Approval.
    f. Traffic Impact Study.
    g. Declaration of Covenants.
    h. Water Quality reports.
    i. Addition RSID documents to join to the previous RSIDs for Lazy KU Subdivision.
6. Agriculture Impacts.
    a. There does not appear to be any major impact to agricultural facilities besides transitioning the existing agricultural land within the planned subdivision to residential use.
7. Agricultural water user facilities Impacts.
    a. No water rights have been conferred to the subdivider or future owners of the lots within the subdivision.
    b. Existing irrigation and other related water user facilities shall not be changed or modified from their current use.
8. Local Services Impacts.
    a. Fire Service will be provided by the Laurel Volunteer Fire Department (Laurel Fire District).
    b. Law Enforcement shall be provided by the Yellowstone County Sherriff's Department.
    c. The property is within the Laurel School District.

d. The proposed roadways and improvements for existing roadways within and adjacent to the proposed Subdivision will not create a burden for roadway maintenance on the area agencies as per the traffic impact study.

9. Natural Environment Impacts
    a. The area of the proposed subdivision is existing agricultural land.
    b. The proposed subdivision follows the trend within Yellowstone County of agricultural land transitioning to residential and commercial uses.
    c. The applicant has prepared the subdivision design in order to adequately protect water quality.
10. Wildlife and Wildlife Habitat Impacts
    a. The proposed Subdivision contains no known protected species or those with special status.
11. Public health & Safety Impacts
    a. The water and wastewater system has been submitted to DEQ for review and approval.
    b. The subdivision has been designed to ensure no impacts arise for the subdivision or surrounding property regarding water and/or wastewater.

PLANNING BOARD AND GOVERNING BODY REVIEW CRITERIA

LMC 16.03.010.030.C Part 4 states:

"After the planner has notified the subdivider or the subdivider's agent that an application contains sufficient information delineated herein, the AGB shall approve, conditionally approve, or deny the proposed subdivision within sixty working days based on its determination of whether the application conforms to the provisions of these regulations. For major subdivisions over fifty lots, the AGB shall approve, conditionally approve, or deny the proposed subdivisions with eighty working days. The subdivider and the planner may agree to an extension or suspension of the review period, not to exceed one year, or a subsequent public hearing is scheduled and held as provided in herein. (MCA; s; 76-3-604(4))"

RECOMMENDATIONS

The Planning Director recommends that the Planning Board approve the Major Preliminary Plat of the Lazy KU Subdivision 2nd Filing and amended lot 12 of Lazy KU Subdivision with the following conditions:

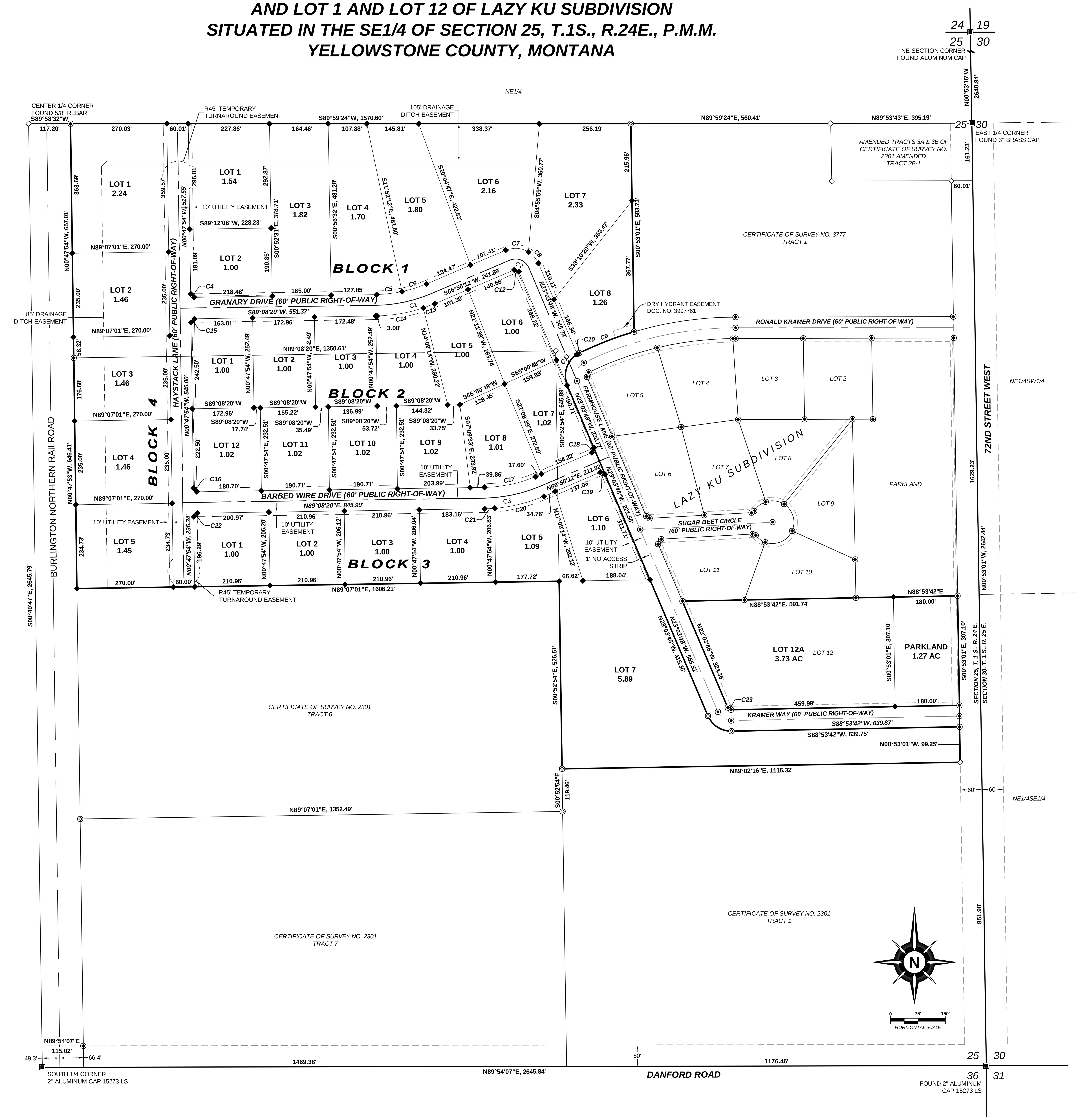
1. The Preliminary Plat and supporting water and wastewater design will be approved by MDEQ.
2. The Roadways and Right-of-Ways shall be constructed to the specifications presented in the plat plan and supporting documentation.
3. This Preliminary Approval shall be valid for 3 calendar years.
4. The comments made by Yellowstone County Departments shall be addressed prior to submittal of final plat and approval by the Board of Yellowstone County Commissioners.

ATTACHMENTS

1. Preliminary Plat of Lazy KU Subdivision 2nd Filing
2. Names and Addresses of Adjoining Property Owners
3. Subdivision Improvements Agreement
4. Traffic Impact Study
5. Environmental Assessment and/or Summary of Probably Impacts
6. Draft Protective and Restrictive Covenants
7. Water/Wastewater Design (DEQ Submitted)
8. Weed Management Plan in the SIA
9. Element Review Letter
10. Sufficiency Review Letter
11. Public Hearing Notice
12. Yellowstone County Public Works Comments
13. Yellowstone County Clerk & Recorder Comments

LAZY KU SUBDIVISION, 2ND FILING

TRACT 5 OF CERTIFICATE OF SURVEY NO. 2301
AND LOT 1 AND LOT 12 OF LAZY KU SUBDIVISION
SITUATED IN THE SE1/4 OF SECTION 25, T.1S., R.24E., P.M.M.
YELLOWSTONE COUNTY, MONTANA



NOTES

1. 1' WIDE NO ACCESS STRIP EASEMENT, DEDICATED THIS PLAT
2. 10' WIDE UTILITY EASEMENT, DEDICATED THIS PLAT
3. BASIS OF BEARING: NAD83(2011) MONTANA STATE PLANE COORDINATE SYSTEM, GRID
4. DISTANCES: GROUND, INTERNATIONAL FOOT

Curve Table

Curve No.	Radius	Length	Delta	Chord Bearing	Chord Length
C1	400.00'	155.00'	22°12'08"	S78°02'16"W	154.04'
C2	40.00'	62.83'	90°00'00"	N68°03'48"W	56.57'
C3	410.00'	158.88'	22°12'08"	N78°02'16"E	157.89'

Curve Table

Curve No.	Radius	Length	Delta	Chord Bearing	Chord Length
C4	10.00'	15.72'	90°03'46"	N45°49'47"W	14.15'
C5	370.00'	71.76'	11°06'42"	S83°34'59"W	71.65'
C6	370.00'	71.62'	11°05'26"	S72°28'55"W	71.51'
C7	70.00'	65.91'	53°56'41"	N86°05'28"W	63.50'
C8	70.00'	44.05'	36°03'19"	N41°05'28"W	43.33'
C9	1000.00'	165.11'	9°27'37"	S68°46'34"W	164.93'
C10	70.00'	6.50'	5°19'21"	S61°23'05"W	6.51'
C11	70.00'	99.92'	81°47'12"	S17°49'48"W	91.66'
C12	10.00'	15.71'	90°00'00"	S68°03'48"E	14.15'
C13	430.00'	34.21'	4°33'31"	N69°12'57"E	34.21'
C14	430.00'	132.41'	17°38'37"	N80°19'01"E	131.90'
C15	10.00'	15.66'	89°43'37"	N44°03'36"E	14.11'
C16	10.00'	15.72'	90°03'30"	N45°49'47"W	14.15'
C17	380.00'	147.25'	22°12'08"	S78°02'16"W	146.34'
C18	10.00'	15.71'	90°00'00"	S21°56'18"W	14.15'
C19	10.00'	15.71'	90°00'00"	S68°03'48"E	14.15'
C20	440.00'	142.68'	18°34'46"	N76°13'35"E	142.06'
C21	440.00'	27.82'	3°37'22"	N87°19'39"E	27.82'
C22	10.00'	15.70'	89°56'14"	N44°10'13"E	14.14'
C23	10.00'	11.88'	68°02'49"	N57°05'03"W	11.19'

LEGAL DESCRIPTION AND PROPERTY OWNER CERTIFICATE OF DEDICATION

STATE OF MONTANA)
: ss
County of YELLOWSTONE)

KNOW ALL MEN BY THESE PRESENTS: That, **LAZY KU ESTATES LLC,** the owner of the following described tract of land, does hereby certify that it has caused to be surveyed, subdivided and platted into lots, blocks and streets as shown on the plat, said tract being situated in Section 25, T.01S., R.24E., P.M.M. Yellowstone County, Montana, said tract being more particularly described as follows:

> Tracts 5 of Certificate of Survey No. 2301, in Yellowstone County, Montana, according to the official plat on file in the office of the Clerk and Recorder of said County, under Document No. 1339115 and Lot 1 and Lot 12 of Lazy KU Subdivision, in Yellowstone County, Montana , according to the office plat on file in the office of the Clerk and Recorder of said County, under Document No. 3997758 containing a gross area of 55.96 acres and a final net area of 49.29 acres, more or less. Subject to all easements of record or apparent on the ground.

The park requirement for this subdivision has been met by land donation pursuant to Section 36-3-621(1)(c), M.C.A.

The undersigned hereby certifies that Lot 7, Block 3 is exempt from D.E.Q. review in accordance with A.R.M. 17.36.605(2)(a).

The undersigned hereby grants unto all utility companies, as such are defined and established by Montana Law, and cable television companies an easement for the location, maintenance, repair and removal of their lines and other facilities, in, over, under and across the areas designated on this plat as "UTILITY EASEMENT" to have and to hold forever. Said tract shall be known and designated as "**LAZY KU SUBDIVISION, 2ND FILING**", and the lands designated as public right-of-way are hereby granted and dedicated to the use of the public forever.

____
Cherryl Ann Kramer, Manager
Lazy KU Estates LLC

STATE OF MONTANA)
: ss
County of YELLOWSTONE)

On this __________ day of ____________________, 202___, before me, the undersigned a notary public for the State of _______________, personally appeared Cherryl Ann Kramer, as Manager of the Lazy KU Estates LLC, known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

____
Notary Public for the State of ______________

CERTIFICATE OF APPROVAL

STATE OF MONTANA)
: ss
County of Yellowstone)

We do hereby certify that we have examined the plat of **LAZY KU SUBDIVISION, 2ND FILING** and find that said plat conforms with the requirements of the laws of the State of Montana and that the requirements for park donation have been met to the satisfaction of the Laurel City-County Board of Planning. It is therefore approved and the dedication to the public use of any and all lands shown on this plat as being dedicated to such use are accepted.

IN WITNESS WHEREOF, we have set our hands and the seal of Yellowstone County, Montana, this ______ day of ________________, 20___

____
Commissioner

____
Commissioner

____
Chairman

Attest: ____________________________
Clerk and Recorder

NOTICE OF APPROVAL

STATE OF MONTANA)
: ss
County of Yellowstone)

This plat has been approved for filing by the Laurel City-County Planning Board and conforms to the recommendations of this board.

____
Chair Date

____
Executive Secretary Date

CERTIFICATE OF CITY/COUNTY HEALTH DEPARTMENT

This Certificate of Subdivision Plat has been reviewed and approved by the Yellowstone City/County Health Department and the State Department of Environmental Quality.

____
Health Officer or Authorized Representative
Yellowstone City/County Health Department

CERTIFICATE OF COUNTY ATTORNEY

This document has been reviewed by the Yellowstone County Attorney's Office and is acceptable as to form.

____
County Attorney or Authorized Representative
Yellowstone County Attorney's Office

____
Date

CERTIFICATE OF COUNTY TREASURER

I hereby certify that all real property taxes and special assessments have been paid per 76-3-611(1)(b)/76-3-207(3), M.C.A.

____
County Treasurer or Authorized Representative
Yellowstone County Treasurer's Office

____
Date

CERTIFICATE OF SURVEYOR

I, ____________________, a Montana Registered Land Surveyor being first duly sworn, deposes and says that during the month of October 2020, a survey was performed under my supervision of a tract of land to be known as **LAZY KU SUBDIVISION, 2ND FILING**, in accordance with the request of the owner thereof and in conformance with Montana Subdivision and Platting Act; said subdivision being in accordance with the Landowner's Certificate and as shown on the plat; that the monuments found and set are of the character and occupy the positions hereon.

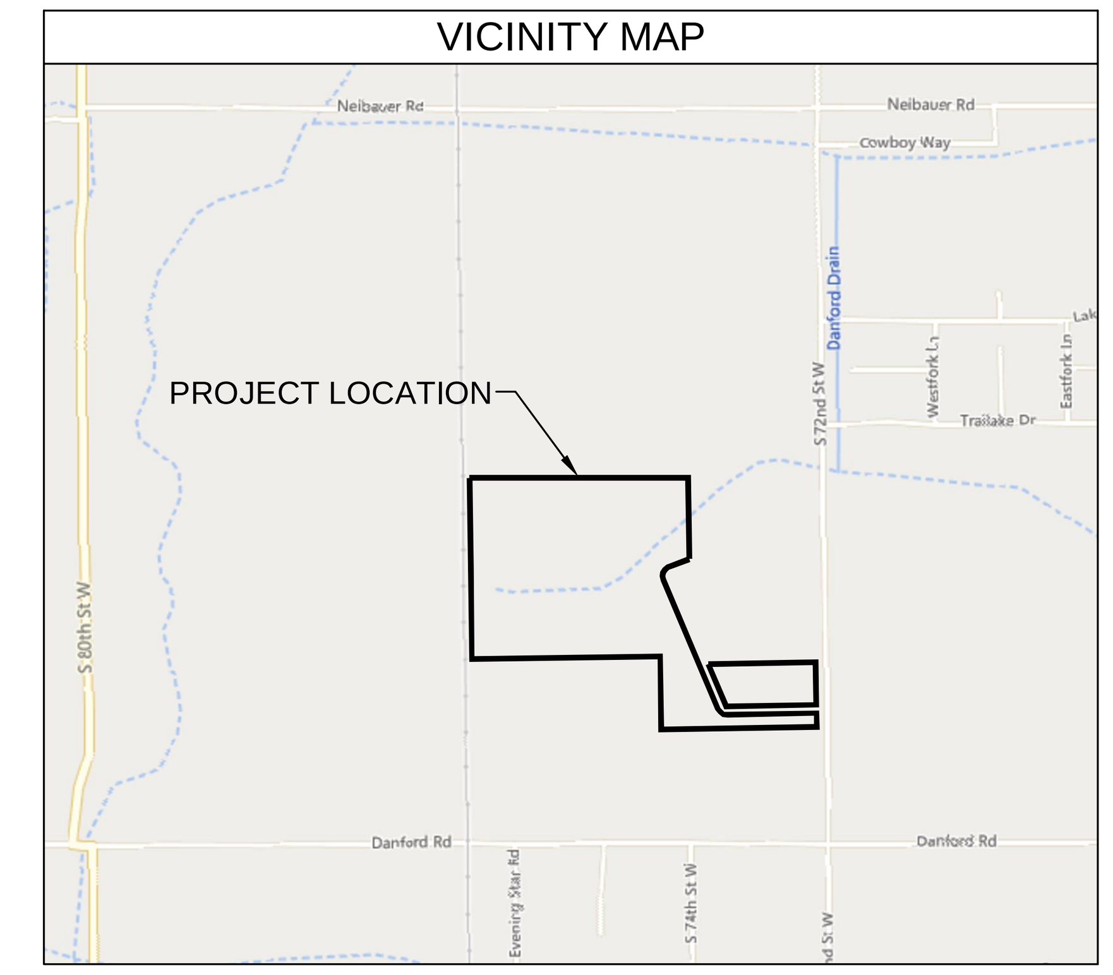
Dated the _________ day of ____________________, 20___

____
Registration Number

LEGEND

- ▣ FOUND ALUMINUM CAP
- ◉ FOUND PLASTIC CAP
- ◇ FOUND REBAR
- ◆ SET 5/8" REBAR W/ PURPLE PLASTIC CAP (BRUCKNER, 63052 LS)
- ◎ SET CENTERLINE MONUMENT
- ⊙ FOUND CENTERLINE MONUMENT
- EXISTING EASEMENTS
- NEW EASEMENTS
- PROPERTY BOUNDARY
- SUBDIVISION BOUNDARY
- (M) MEASURED DISTANCE
- (R1) RECORD DISTANCE - LAZY KU SUBDIVISION DOC. NO. 3997758
- (R2) RECORD DISTANCE - COS 2301 DOC. NO. 133915

VICINITY MAP



PREPARED FOR: JERRY KRUSHENSKY
DATE SURVEYED: NOVEMBER 2021
PREPARED BY: WWC ENGINEERING

1/4	SEC.	TWP.	RGE.
	25	01S	24E

LAZY KU SUBDIVISION, 2ND FILING

JOB#: 2023-123

REVISIONS — Date | By

WWC ENGINEERING
550 S 24th STREET W, SUITE 201
BILLINGS, MT 59102
(406) 894-2210

Drawn By: AMR | Checked By: JPB | Date: MAY 2023 | Scale: 1" = 150'

CITY HALL
115 W. 1ST ST.
PLANNING: 628-4796, ext. 5
WATER OFC.: 628-7431
COURT: 628-1964
FAX 628-2241

City Of Laurel

P.O. Box 10
Laurel, Montana 59044

Office of the Planning Director

October 6, 2023

Aaron Redland
Project Manager
WWC Engineering
550 S. 24th Street W, Suite 201
Billings, MT 59102

Regarding the Element Review of the submitted documents for the Lazy KU Subdivision 2nd Filing Application

Ms. Redland,

Below are listed the results of the element review by city staff on the Major Subdivision submitted by your office on **September 8th, 2023,** as per LMC. Chapter 16, Appendix F: Required Supporting Documents for Major Preliminary Plat Applications.

1. Names and Addresses of Immediately Adjoining Property Owners typed or neatly printed on Address Labels – mailed for public hearing.
2. Draft Subdivision Improvements Agreement – Changes as per staff comments in the staff report.
3. Environmental Assessment or Summary of Probably Impacts, when applicable. – Sufficient
4. Traffic Accessibility Study (TAS) when applicable. – Sufficient
5. Preliminary Water and Sanitation Information – DEQ approval needed.
6. Geotechnical Report – Sufficient
7. Draft Protective and restrictive covenants, if any. – Sufficient
8. Draft Articles of Incorporation when Homeowner's Association is proposed. – Not Included.
9. When a tract of land is to be subdivided in separate filings, a Master Plan of the Entire area to be developed. – Not Included. Not Applicable.
10. Preliminary Plat- Changes as listed in the staff report.

Please let me know if you have any questions or comments about the items in this letter. I have forwarded you comments that will be included in the staff report for the public hearing and will be part of the conditions of approval. The Public Hearing is set for October 18th, 2023 at 6pm.
If you have any questions please call or email me.

Regards,

Kurt Markegard
Planning Director

PUBLIC HEARING NOTICE

The Laurel City-County Planning Board and Zoning Commission will conduct a public hearing on the Lazy KU Subdivision 2nd filing. The hearing is scheduled for **6 P.M., in the City Council Chambers at City Hall, 115 West 1st Street, Laurel, Montana, on Wednesday, October 18th, 2023.**

Public comment is encouraged and can be provided in person at the public hearing on October 18th . Public comment can also be made via email to the Planning Director, or via letter to the Planning Department office at 115 West 1st Street Laurel, MT 59044. A copy of the Subdivision documentation is available for review upon request at the Planning Department office. Questions regarding this public hearing may be directed to the Planning Director at 628.4796 ext. 5305, or via email at cityplanner@laurel.mt.gov.