LONG RANGE TRANSPORTATION PLAN

Prepared for the City of Lander, Wyoming

April 2020

Contents

Appendices

Figures

Tables

Photos

Executive Summary

The City of Lander, Wyoming has developed this Long Range Transportation Plan (LRTP) for the purpose of analyzing the existing transportation network, identifying key transportation issues, and making recommendations for potential system improvements. The LRTP will also identify and discuss the potential costs and benefits of future roadway connections not currently part of the transportation network. The LRTP includes an inventory of transportation infrastructure and land use, an analysis of the transportation network, parking capacity and needs, multi-modal transportation considerations, and an assessment of wayfinding signage to improve navigation to key Lander destinations.

Public Engagement

Engagement with the public has been a critical component throughout the development of both the Lander LRTP and the Safe Routes to Schools and Walkable, Bike-able Routes Study. These outreach sessions have been used to gain feedback to identify issues and concerns and to gain buy-in on proposed recommendations and solutions. The first public meeting occurred on October 21, 2019 at Lander City Hall and an additional meeting was held on February 19, 2020 with several people in attendance at both meetings. Comments received by the public are compiled in Appendix A.

The main comments received during and after the meeting were with respect to the recommendations about 7th Street and 3rd Street and if either street should be upgraded from a Local Street to a Collector Street. The consensus was that 3rd Street makes a lot of sense to upgrade from a Local Street to a Collector Street because it provides access to City Park, Fremont Street, and Sinks Canyon. The consensus on 7th Street was that it made more sense to leave as a Local Street because it's perceived as being narrow, and because it is identified as a Safe Route corridor. Safe Routes for Non-drivers (of Safe Route corridors) provide access and accommodation for children, older adults, and individuals with disabilities on street sidewalks and pathways and provide safe connectivity for pedestrians in communities.

Transportation Inventory

The Lander roadway system consists of 46 miles of roadway within the city boundary. Some of the highest traffic volumes are located on the highways in Lander and include:

- Main Street (US 287) with average daily traffic volumes ranging from 5,000 to 18,000 vehicles per day
- US 789 (7,000 to 11,000 vehicles per day)
- Sinks Canyon Road (Highway 131) (1,500 vehicles per day).

Other roadway segments with relatively high traffic volumes include Buena Vista, Baldwin Creek, 2nd, 3rd, 5th, 7th, 9th, Fremont, Cascade, and Jefferson.

Roadways have historically been categorized under a variety of designated functional classifications. The primary purpose of the classification system has been to set the framework for the role and purpose of each roadway. The classifications also typically

carry expectations and/or requirements for roadway design characteristics such as roadway speed, frequency of access, number of lanes, and roadway width. The existing functional classification designations were reviewed using two aspects of the Federal Highway Administration (FHWA) guidance: overall roadway system mileage proportion and typical average daily traffic (ADT) ranges.

The Lander roadway network is largely within the FHWA guidance thresholds. Many of the Principal Arterial segments have traffic volumes above the typical range for rural states, but these volumes are still well within the typical range for urban states (7,000 - 27,000 vehicles per day). Likewise, many Local roadway segments have traffic volumes outside the typical range.

Additional analysis was conducted on the Minor Arterial, Collector, and Local functional classifications to identify any roadway portions that may warrant and upgrade or downgrade to a different classification. A summary of the recommended functional classification changes is provided in the table below.

Table ES-1. Functional Classification Recommendations

Functional Classification	Recommended Changes
Principal Arterial	**No recommended changes.**
Minor Arterial	**No recommended changes.**
Collector	**Upgrade Buena Vista Drive south of Wyoming Street to Minor Arterial.** Buena Vista Drive north of Wyoming Street is already classified as a Minor Arterial. Upgrading the southern portion would serve to extend this designation to reach key destinations including the SageWest Hospital and the Hunt Field airport.
Minor Collector	**No recommended changes.**
Local	**Upgrade 3rd Street south of Main Street to a Collector.** This corridor serves as a key connection between Main Street (US 287) and Fremont Street and provides connectivity to City Park and Sinks Canyon.

Land Use

The distribution of land use types throughout the city was evaluated. Land uses in the city are predominantly made up of commercial, residential, and public land. Very little Industrial land is located within the city with small areas located along US 287 southeast of the city boundary and along Mortimore Lane to the south of the city. The land surrounding Lander predominantly consists of Agricultural, Residential, and Public land.

Transportation Impacts of Potential Development

According to the 2012 Lander Master Plan, 92 percent of the land within the city has been developed. The remaining undeveloped acreage consists of 45 acres zoned for commercial development and 100 acres zoned for residential development. This translates to approximately 492,000 square feet of commercial space and 200 single

family residential dwellings that may be added to the city. Developments in these areas—as well as infill development and redevelopment of existing uses—would result in additional trips on the transportation network, potentially necessitating transportation improvements.

A full development of the currently vacant land uses would result in approximately 1,476[1] additional daily trips on the Lander transportation system. Since the vacant land areas are dispersed throughout the city and are generally located in areas adjacent to the Principal Arterial and Minor Arterial networks, these additional trips are not anticipated to have a significant impact on the current transportation network. Aside from this limited anticipated impact, developments in outlying area should also consider how to effectively allow users to access the site via alternative transportation means such as walking and bicycling.

Transportation Network Analysis

This section includes a detailed analysis of the Lander transportation network including a brief discussion of roadway jurisdiction, a crash analysis, a discussion of potential additional river crossing to improve overall connectivity, and the identification of potential improvements to address specific deficiencies of the network.

Crash Analysis

Crash history for the City of Lander was assessed for years 2009 through 2018. Over this 10-year period, 993 crashes were recorded. Of these, only one was a fatal crash, 177 were injury (or possible injury) crashes, and the remaining 815 were property damage only (PDO) crashes. Annual crashes have remained relatively stable with approximately 100 crashes per year over the analysis period. The single fatal crash occurred in 2012.

Crashes were predominantly located along or adjacent to Main Street with the highest concentration occurring on the east side of Main Street between 3rd Street and 1st Street. Other areas with high concentrations include the intersection of US 287 and US 789, and the intersection of Main Street with 9th Street.

Rear end crashes were recorded with the highest frequency during the analysis period followed by right angle crashes and crashes not involving a collision between vehicles (e.g., run off road). Combined, these three crash types comprise more than half (54 percent) of all crashes during this time period.

Deficiencies and Potential Improvements

Multiple locations of transportation network deficiencies were identified through discussions with City staff, public outreach, and qualitative and quantitative assessments of the system. A summary of the deficiencies and proposed solutions is included below:

[1] Assumes an average rate of 9.44 trips per dwelling unit for residential land use and 30 trips per 1,000 square feet for commercial land use. Source: Institute of Transportation Engineers Trip Generation Manual, 10th Edition, based on expected land uses.

- **Additional River Crossings:** The City of Lander is bisected by the Middle Fork of the Popo Agie River. This natural feature presents connectivity challenges between the eastern and western portions of the city. Existing bridge crossings are located on Main Street (US 287), 2nd Street South, and Mortimore Lane. Two potential additional bridge locations include Eugene Street for a pedestrian bridge and Industrial Park Road for a vehicular bridge.

  The need for additional crossings was discussed at the second public meeting. The general consensus was that funding would be better served improving the existing bridge on Main Street instead of pursing additional crossings. In the event that the Main Street Bridge is damaged, there is an alternate route with an existing bridge closer to Main Street located on 2nd Street.

- **2nd Street & Main Street:** This intersection was identified as the most significant crash hotspot in the Lander area. Improvements that may help improve safety at this intersection include adding an all-red clearance interval and providing a protected left-turn phase.

- **8th Street & Main Street:** The intersection of 8th Street with Main Street has been identified as a location that is difficult for pedestrians and bicyclists to navigate. Encouraging pedestrians to cross at adjacent intersections equipped with traffic signals may be the most effective solution However, other potential improvements that would address pedestrian and bicycle difficulties including pedestrian signing and crosswalk, curb extensions, and a median pedestrian refuge.

- **Designated Access Route to Sinks Canyon Road:** Access to Sinks Canyon Road is primarily via Main Street to either 5th Street or 9th Street (and also 3rd Street). The City is considering the designation of one of these routes as the primary access route for through traffic to Sinks Canyon Road. This would help concentrate traffic—particularly heavier commercial vehicle traffic—to the roadway that is better suited to handle it. Based on this analysis, it is recommended that 5th Street be chosen as the designated access route to Sinks Canyon Road. This designation will help to reduce volumes of through-traffic on 9th Street and redirect it to 5th Street which is better suited to handling higher volumes of traffic.

- **Baldwin Creek Road & Smith Road:** The intersection of Baldwin Creek Road and Smith Road is a three-way stop-controlled intersection used as a key access to the Baldwin Creek Elementary School. The intersection is perceived as a safety concern with many vehicles on Baldwin Street not stopping for pedestrians even when crossing guards are present. The following strategies were considered as potential solutions to the safety issues at this crossing. The City should also implement a pedestrian ramp for the crosswalk on the north side of Baldwin Creek Road in order to comply with Americans with Disabilities Act (ADA) requirements for accessibility.

  - **Option 1: Road Diet** – Reducing Baldwin Creek Road from four lanes to three lanes (two through lanes with a center turn lane). This would have the effect of slowing traffic overall and would also reduce the number of lanes pedestrians would need to cross. It also adds safety benefits associated with separating turning traffic from through traffic.

  - **Option 2: Improved Stop Signs and Flashing Advance Warning Signs** – Motorist awareness of the stop signs may be improved through either an increase in the size of the stop sign, or the installation of advance flashing beacons at advanced crosswalk signs.
  - **Option 3: Pedestrian Hybrid Beacon** – This is a traffic control device that is activated by pedestrians only when need either through the use of a pedestrian button or a detection system. The system includes overhead flashing lights and signage to increase the visibility of the crossing.

- **Evaluation of Main Street Bypass Routes:** Main Street (US 287) is by far the highest volume roadway in Lander. For traffic travelling through Lander without a destination along Main Street, alternate bypass routes may be desirable to reduce travel time and increase travel time reliability. Potential parallel roadways which could serve this purpose include Lincoln Street to the north and Garfield Street to the south. The impacts of using these roads as alternate routes is summarized below:
  - **Passenger Vehicle Bypass Traffic:** There would be little incentive for drivers to utilize the bypass routes under normal circumstances. However, during times of high congestion—or in the event of a collision or other event obstructing Main Street—these bypass routes may be more feasible.
  - **Freight Vehicle Bypass Traffic:** Many freight and heavy commercial vehicles have difficulty navigating sharp turns in urban areas. For this reason, it is unlikely that freight vehicles would utilize the bypass routes, even if Main Street is experiencing high congestion.
  - **Bicycle Traffic:** Based on the expected results noted above for passenger and freight vehicle traffic, it is unlikely that the bypass routes would divert sufficient volumes of traffic to make Main Street more appealing to bicyclists.
  - **Increased Local Road Maintenance:** Diverting traffic from the Main Street will increase the wear and tear on Lincoln and Garfield, leading to increased maintenance costs over time.

- **Pedestrian Signal Timing:** The City and WYDOT are aware of pedestrian signal timing issues at the intersections of Main Street with Baldwin Street and 9th Street. The signals are actuated, meaning if the pedestrian buttons are not pushed, there is not enough walk time provided for pedestrians to safely cross the street. The following strategies were evaluated and considered:
  - **Adjust Existing Signal Timing:** Retiming of the existing signal timing to provide a longer signal for the cross street traffic. Due to the substantial imbalance in traffic volumes between Main Street and the cross streets, taking this approach could have severe impacts to traffic delay on Main Street.
  - **Adjust Signal Timing for Peak Pedestrian Hours Only:** The altered signal timing would only go into effect during peak pedestrian hours, likely correlated with school start and end times. This approach would have a smaller impact on traffic delay than changing the signal timing throughout the

day, but the impact could still be substantial since peak pedestrian and peak vehicle times are likely to overlap.

- **Pedestrian Detection System:** Pedestrian detection systems are typically based on either microwave or infrared technology and are set up to detect pedestrians at a targeted location. These systems provide extended walk times only when needed, minimizing the impact to vehicular delay, but can be expensive at a cost ranging from approximately $10,000 to $70,000.

Multi-modal Considerations

It is important to ensure that the Lander's transportation system is designed to meet the needs of all users, not just passenger vehicles. In addition to this Long Range Transportation Plan, the City of Lander is also conducting a Safe Routes to Schools and Walkable, Bike-able Routes Study. In that study, Safe Route corridors with ADA accessible continuous sidewalk are being proposed to improve pedestrian mobility throughout Lander and provide safe corridors for connectivity between Employment, Education Centers, Parks and Recreation, Library and other Community use spaces, health and legal services, and groceries and shopping.

Additionally, improvements are also being proposed to the Lander Area Pathway System, which includes streets and roads where bicycles and vehicles share the road as well as off road pathways. Generally streets with a width of 49 feet (curb-to-curb) were determined to be wide enough to accommodate on-street parking and the addition of a dedicated bike lane where traffic volumes were higher. Unfortunately, for streets with a width of only 44 feet (curb-to-curb), there was not enough room to accommodate a dedicated bike lane and keep on-street parking on both sides of the road on roadways with higher traffic volumes. Generally for these types of streets, we are recommending that they become Bicycle Boulevards (with sufficiently low traffic volumes).

Parking

There were no public comments related to parking received regarding residential or commercial parking on public streets in Lander. Generally, residents of cities similar to Lander sometimes perceive that finding parking can sometimes be difficult to find on Main Street, especially right in front of the business that is trying to be accessed. However, typically when reviewed with respect to a one or two block radius of Main Street, there is sufficient on-street parking capacity. The other perception is that sometimes parking can be an issue during large events. Again this may be something that is just a perception, for those that want to park as close to the event as possible.

The Lander City Park provides good amenities for local residents and visitors in Lander. RV's and campers are allowed to overnight camp for free, and there are public restrooms available. Most of the other parks in Lander also have parking placed available and appear to have capacity for typical use at these locations.

Wayfinding Signage

The City of Lander has multiple sites and facilities that serve as key destinations for locals and visitors alike. Navigating to these destinations should be simple and

straightforward. This section proposes a list of key Lander destinations and identifies locations for wayfinding signage that would allow users to successfully locate and navigate to them. The types and placements of these signs are also discussed with the goals of developing a wayfinding signage system that works for all users including drivers, pedestrians, and bicyclists.

A series of key destinations were identified and grouped into five primary categories of Educational, Museum, Park/Natural, Public/Recreational, and Medical. To improve ease of navigation, these categories may be used to color-code the wayfinding signage.

The proposed locations of the wayfinding signs will assist visitors by first displaying the signs on the approaches to the city including US 287 northbound and southbound and US 789 southbound. These signs will indicate the color-coded nature of the signs and will alert users to be on the lookout for additional wayfinding signs. Wayfinding signs will also be placed at key crossroads locations on Main Street including 2nd Street, 5th Street, 8th Street, and 9th Street. These will direct users towards the destinations along common, high-capacity routes. Where additional turns are required in order to arrive at the destination, additional wayfinding signs will be placed at key turn locations.

Future Roadway Connections

As the City of Lander has continued to grow and develop over the past few decades, tentative plans have been made to accommodate this growth through the proposed implementation of arterial roadways outside or adjacent to the current city boundary. The proposed network consists of six new arterial roadways and a handful of Collector roadways designed to connect the proposed network to the existing transportation system. The primary goals in implementing this proposed network are to alleviate congestion and promote and support development.

The proposed network was created in preparation for continued growth of the city in a scenario where additional housing and commercial developments would be required to accommodate this growth. However, since peaking with a population of 7,870 in 1980, the population of the city has remained relatively stable. Additionally, the expanded arterial network runs counter to the stated Master Plan goals of encouraging infill development and creating a street system that knits together communities without forming barriers.

It is recommended that the proposed future arterial network be implemented where developments are proposed that cannot be accommodated through infill development and which are addressing city growth. Additionally, the proposed 5-lane cross sections identified in the 2012 Master Plan should be evaluated based on capacity and safety need. Roadways with less than 10,000 ADT function very well as 2-lane roads and streets with 17,000 ADT or more function very well as 3-lane roadways. Center Turn Lanes, auxiliary deceleration right turn lane, and additional travel lanes should be justified through data with proper traffic analysis and only used if actual Level of Service issues are identified.

1. Introduction

The City of Lander, Wyoming has developed this Long Range Transportation Plan (LRTP) for the purposes of analyzing the existing transportation network, identifying key transportation issues, and making recommendations for potential system improvements. The LRTP will also identify and discuss the potential costs and benefits of future roadway connections not currently part of the Lander transportation network.

The LRTP contains the following sections:

- **Transportation Inventory:** This section provides an overview of Lander's transportation inventory, discusses current and forecast traffic volumes and includes recommendations for current functional classification designations.
- **Land Use:** This section reviews recent and proposed land use changes and discusses any necessary modifications to the transportation network as a result of recent and proposed land use changes.
- **Transportation Network Analysis:** This section assesses the overall functionality of the roadway network in Lander to determine deficiencies and recommend improvements. Special focus is given to identifying additional river crossing locations.
- **Multi-Modal Considerations:** This section addresses aspects of bicycle and pedestrian safety and accessibility throughout the city. It recommends solutions to improve accessibility for all residents, particularly those with access limited by the Popo Agie River. This section was coordinated with the concurrent Safe Routes to Schools and Walkable, Bike-able Routes Study.
- **Parking:** This section assesses the adequacy of existing commercial and residential parking throughout the city and makes recommendations for additional parking or other solutions where necessary.
- **Wayfinding Signage:** This section identifies Lander's key assets and destinations and recommends wayfinding signage to direct locals and visitors to key locations throughout Lander. The recommended signage addresses adequate navigational guidance for all modes of travel.

2. Public Engagement

Engagement with the public has been a critical component throughout the development of both the Lander LRTP and the Safe Routes to Schools and Walkable, Bikeable Routes Study. Outreach activities, such as holding public meetings and stakeholder meetings, were used to identify issues and concerns and to gain feedback and acceptance of the proposed recommendations and solutions.

Some of the stake holders that we met with include City Staff, the City of Lander Pathways Committee, Fremont County School District No. 1, and the Lander Cycling Club. Discussions

and meetings with these stakeholders helped with the generation of issues maps for both the Lander LTP and the Safe Routes Study and helped guide the focus of both studies/reports.

The first public meeting occurred on October 21, 2019 at Lander City Hall (Photo 1). The joint meeting for the two transportation studies included a short presentation followed by an open house with City and consultant staff to discuss display boards.

Comments were submitted through 9 survey cards and 11 emails including one email with a letter attached regarding the future roadway connections. The public comments and feedback on the Lander transportation system are summarized in Figure 1. These comments include issues at specific intersections and corridor segments, as well as general comments, such as the desire for additional bicycle and pedestrian infrastructure.

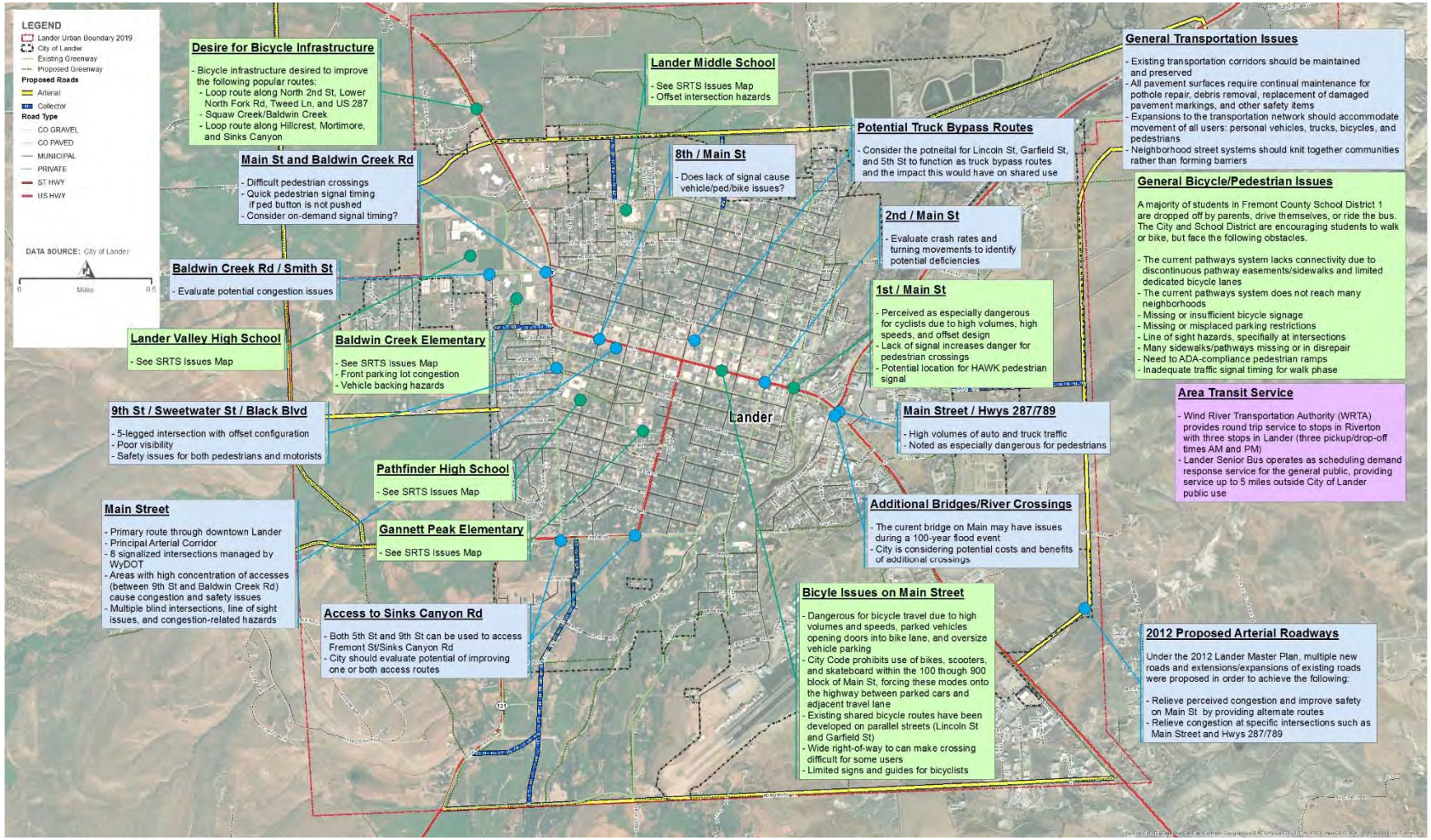
Photo 1. Public Meeting held on October 21, 2019

Additional public meetings will be held to present final recommendations and findings from the LRTP and Safe Routes to Schools and Walkable, Bike-able Routes Study. Comments received by the public are compiled in Appendix A.

The second public meeting for the Lander Transportation Plan was held on February 19, 2020. Two comments were received after the meeting by email; no survey comment cards were submitted at or after the meeting. Comments received are compiled in Appendix A.

The main comments received during and after the second public meeting were regarding the recommendations for 7th Street and 3rd Street and if either street should be reclassified from a Local Street to a Collector Street. The consensus was that 3rd Street should be reclassified as a Collector Street because it provides access to Lander City Park, Fremont Street, and Sinks Canyon. The consensus on 7th Street was that it should remain classified as a Local Street because it is perceived as being narrow, and because it is identified as a Safe Route corridor.

Figure 1. Transportation Issues Map



3. Transportation Inventory

3.1 Traffic Counts

The Lander roadway system consists of 46 miles of roadway within the city boundary. Existing traffic counts throughout the city are shown in Figure 2. All of the traffic counts are included in Appendix B. Some of the highest volumes of traffic are located on the Highways in Lander and are located on:

- Main Street (US 287): with average daily traffic volumes ranging from 5,000 to 18,000 vehicles per day.
- US 789: with average daily traffic volumes ranging from 7,000 to 11,000 vehicles per day.
- Sinks Canyon Road (Highway 131): with average daily traffic volumes ranging from 1,500 vehicles per day.

Other roadway segments with relatively high traffic volumes include Buena Vista, Baldwin Creek Raod, 2nd Street, 3rd Street, 5th Street, 7th Street, 9th Street, Fremont Street, Cascade Street, and Jefferson Street.

Forecasted traffic volumes for 2040 were developed based traffic data at nodes throughout the City of Lander between 2001 and 2019. The traffic data were analyzed to determine the approximated growth between 2001 and 2019, which was estimated at one percent annual growth. The one percent annual growth from past traffic data was then forecast into the future year of 2040, assuming similar growth would be expected. Growth between one percent and three percent is typical industry wide when projecting future traffic volumes, and existing traffic volume growth support the lower end of that scale at one percent. Areas of high traffic volumes largely match the areas described above, with notable traffic increases along Highway 789 and 9th Street South. Forecasted traffic volumes for 2040 are shown in Figure 3.

Figure 2. Lander 2019 Traffic Volumes

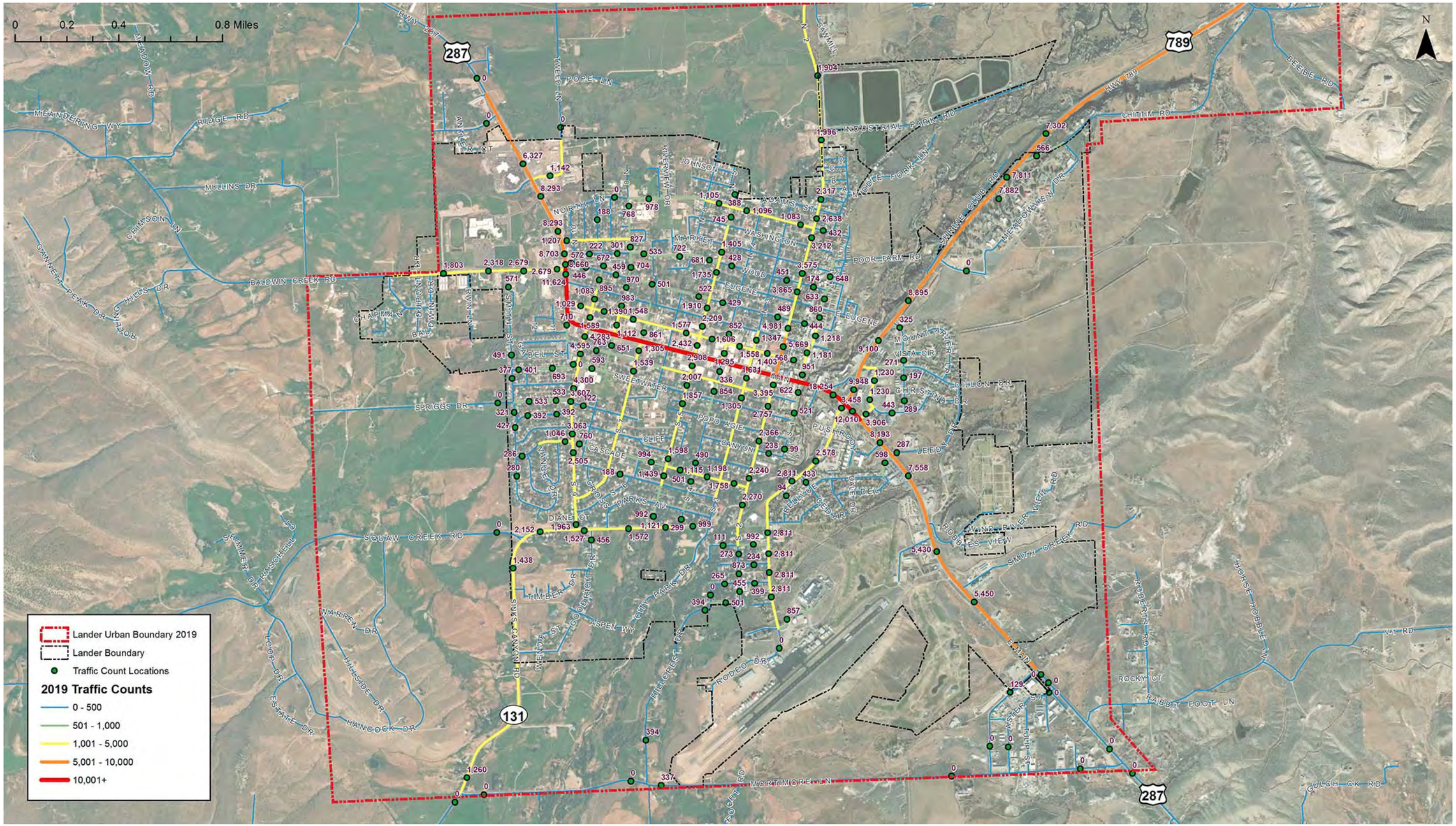
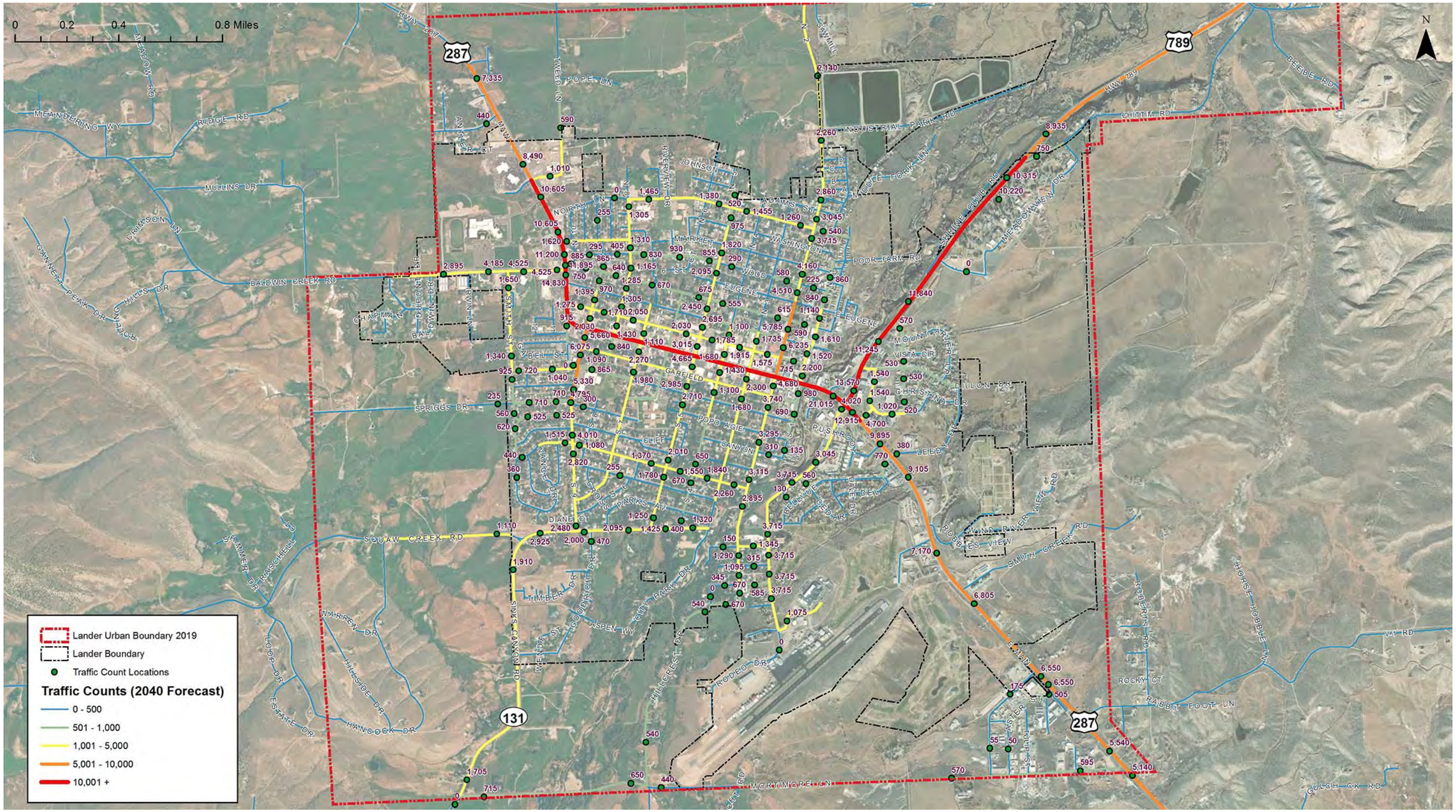


Figure 3. Lander 2040 Forecast Traffic Volumes



3.2 Roadway Classifications

Roadways have historically been categorized under a variety of designated functional classifications. The primary purpose of the classification system is to set the framework for the role and purpose of each roadway. The classifications also typically carry expectations and/or requirements for roadway design characteristics, such as roadway speed, frequency of access, number of lanes, and roadway width.

At the highest classification level, Principal Arterials represent roadways designed to maximize speed and volume while minimizing access.[2] On the opposite end of the spectrum, the Local classification represents roadways designed to maximize access to adjacent land and carry lower volumes of traffic at lower speeds. A healthy transportation network should consist of a balanced mix of all functional classes.

Guidance on applications of the functional classification system is provided by the Federal Highway Association's (FHWA's) *Highway Functional Classification: Concepts, Criteria, and Procedures*. In addition to discussing standard practices and procedures for designing and maintaining roadways under each classification, the document provides guiding criteria for designating functional classifications. A summary of these guidelines and common qualitative characteristics are summarized in Table 2.

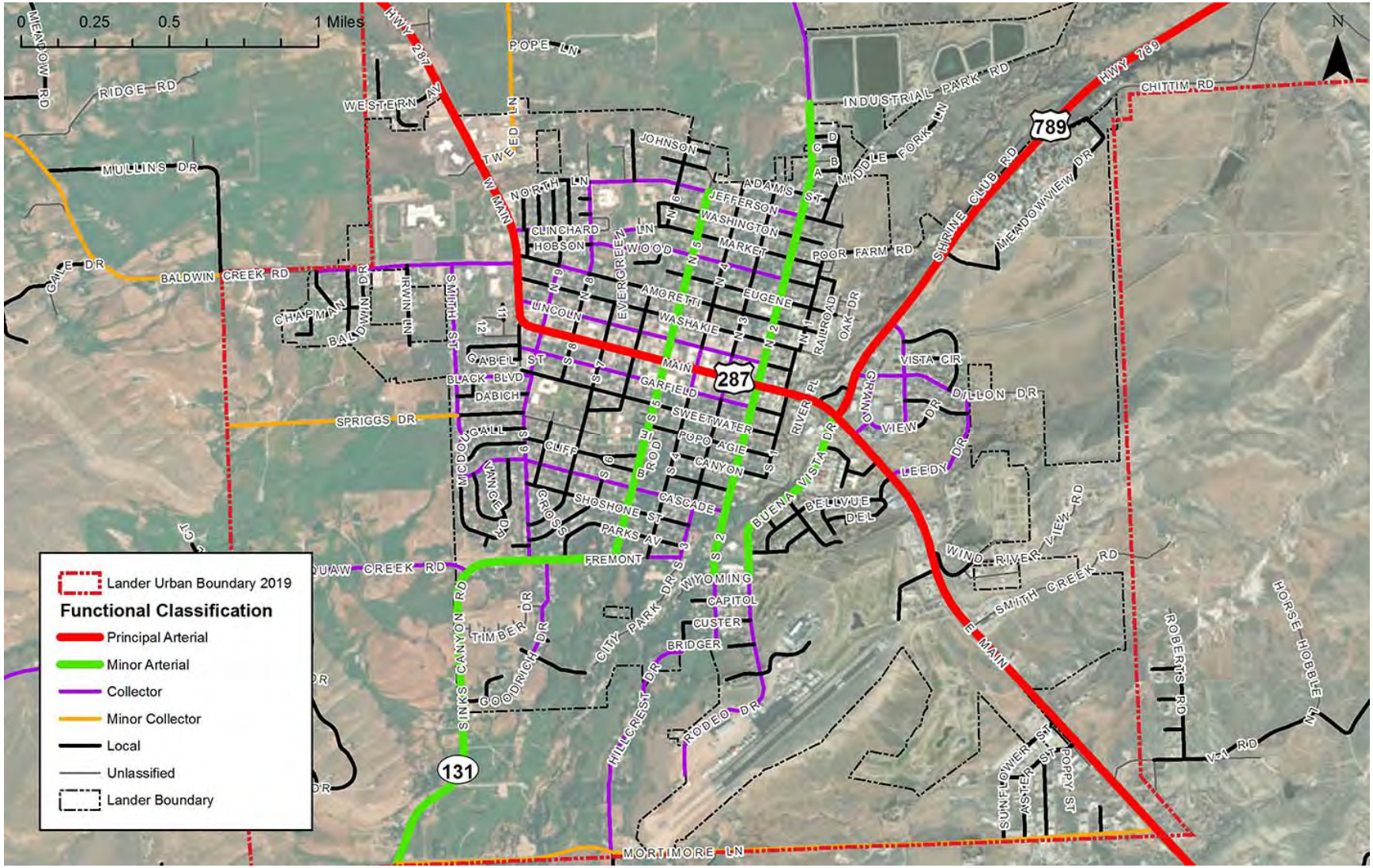
The current roadway functional classification within Lander is shown in Figure 4.

Table 2. FHWA Functional Classification Characteristics

Functional Classification	Typical System Mileage[3]	Typical Traffic Volumes[4]	Qualitative Characteristics
Principal Arterial	4 to 9%	2,000 to 8,500 vehicles/day	High traffic volumes and low system mileage Serve as primary entry points to urban centers Provide connections to other urban centers
Minor Arterial	7 to 14%	1,500 to 6,000 vehicles/day	Connect and augment the Principal Arterials Distribute traffic throughout the urban area Provide connections to remaining functional classification roadways
Collector	3 to 16%	300 to 2,600 vehicles/day	Balance between access and traffic circulation Channel trips from local areas to arterial network
Minor Collector	3 to 16%	150 to 1,110 vehicles/day	Similar purpose and characteristics to Collectors, but generally serve shorter trips
Local	62 to 74%	15 to 400 vehicles/day	Low traffic volumes and high system mileage Provide direct access to destinations (residential, commercial, industrial, etc.) Not suited for through traffic movements

[2] Note that Interstate Highways and other limited access freeways represent the absolute highest functional classification but are not discussed further in this document since they are not present within the City of Lander.
[3] Typical System Mileage Proportion ranges based on Urban System in Rural State guidelines
[4] Typical Traffic Volume ranges based Rural State guidelines

Figure 4. Current Lander Roadway Function Classification



The existing functional classification designations were reviewed using two aspects of the FHWA guidance: overall roadway system mileage proportion and typical average daily traffic (ADT) ranges. It is important to note that the information in the FHWA document is guidance, rather than standards or requirements. Designation of roadway functional classification is ultimately determined by local public authorities. The FHWA guidance provides criteria to assist in classifying roadways that could potentially fall within more than one category.

Figure 5 displays the total system roadway mileage ranges described in the FHWA guidance for urban areas in rural states. The figure also highlights the actual system mileage proportion based on current functional classifications within the Lander city boundary. The current distribution of Principal Arterials and Minor Arterials are within the typical range described in the guidance, while the proportion of Collector roadways is higher than the typical range, and the proportions of Minor Collectors and Locals are both below the typical range. Note that the low proportion of Minor Collectors shown is largely due to the use of this classification for roadway segments outside of the city boundary (e.g., Mortimore Lane, Spriggs Drive, Tweed Lane, Baldwin Creek Road).

Figure 5. Roadway Mileage Proportion Guidelines

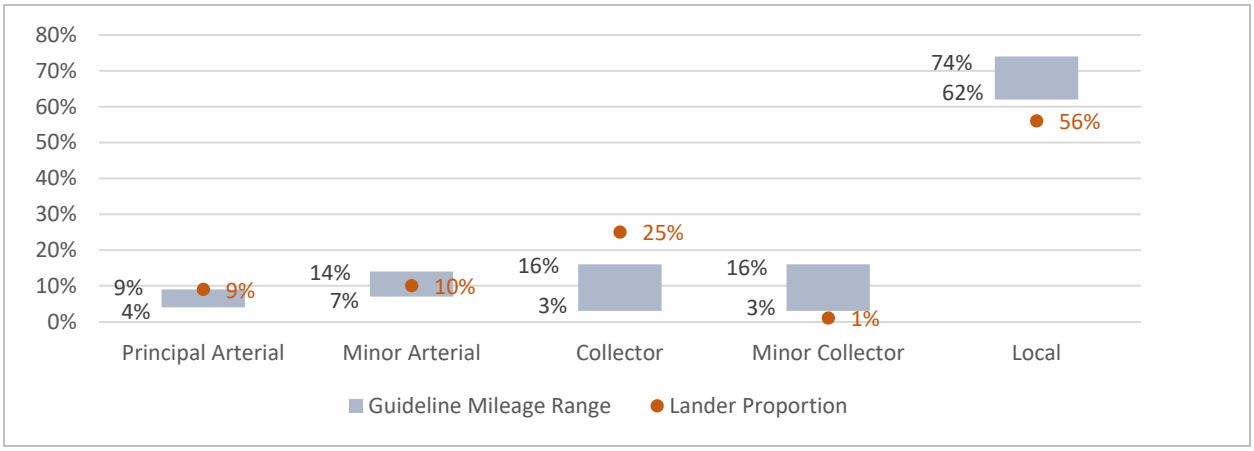


Figure 6 displays the roadway mileage of each functional classification in the Lander roadway network that is above, below, and within the FHWA guidance for ADT range. The Lander roadway network is largely within the FHWA guidance thresholds. Many of the Principal Arterial segments have traffic volumes above the typical range for rural states, but these volumes are still well within the typical range for urban states (7,000 - 27,000 vehicles per day). Likewise, many Local roadway segments have traffic volumes outside the typical range. However, based on the results above showing a lower than typical overall proportion of Local road classification, it is not recommended that any Local roads be upgraded to higher classifications.

The results for Minor Arterials and Collectors show a relatively balanced mix, with some roadway segments over and under the typical thresholds for both categories.

Figure 6. Roadway Mileage within Traffic Volume Guidelines (2019)

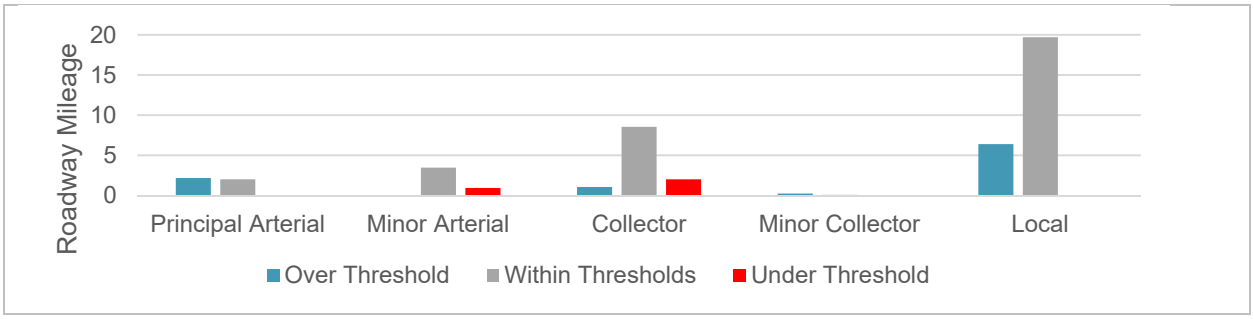
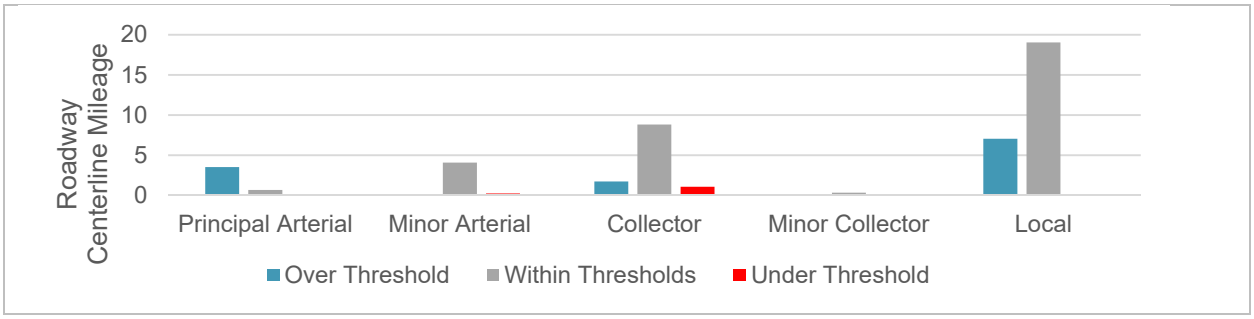


Figure 7. Roadway Mileage within Traffic Volume Guidelines (2040 Forecast)



Additional analysis was conducted on the Minor Arterial, Collector, and Local functional classifications to identify any roadway portions that may warrant and upgrade or downgrade to a different classification. Due to the higher than typical proportion of Collector roadways on the Lander system (Figure 5), additional focus was put on assigned outlier portions of these roadways to alternate classifications.

To identify portions of these classifications with the potential to upgrade or downgrade, traffic volumes within the highest and lowest quintile (20 percent) under each classification were mapped. The results of this exercise are shown on the following pages for Minor Arterials (Figure 8), Collectors (Figure 9), and Local (Figure 10) roads. Roadway segments within the highest quintile may be considered for an upgrade to the next highest classification while those in the lowest quintile may be considered for a downgrade. In either case is it important to also consider other factors such as contiguity and connectivity with adjacent functional classifications. A roadway with high traffic volumes along a continuous corridor presents a stronger case for reclassification than one which has high traffic volume peaks along disconnected segments.

A brief discussion of the findings of this analysis and recommendations for potential roadway reclassifications are provided in Table 3.

Figure 8. Minor Arterial Analysis: Traffic Volume Outliers

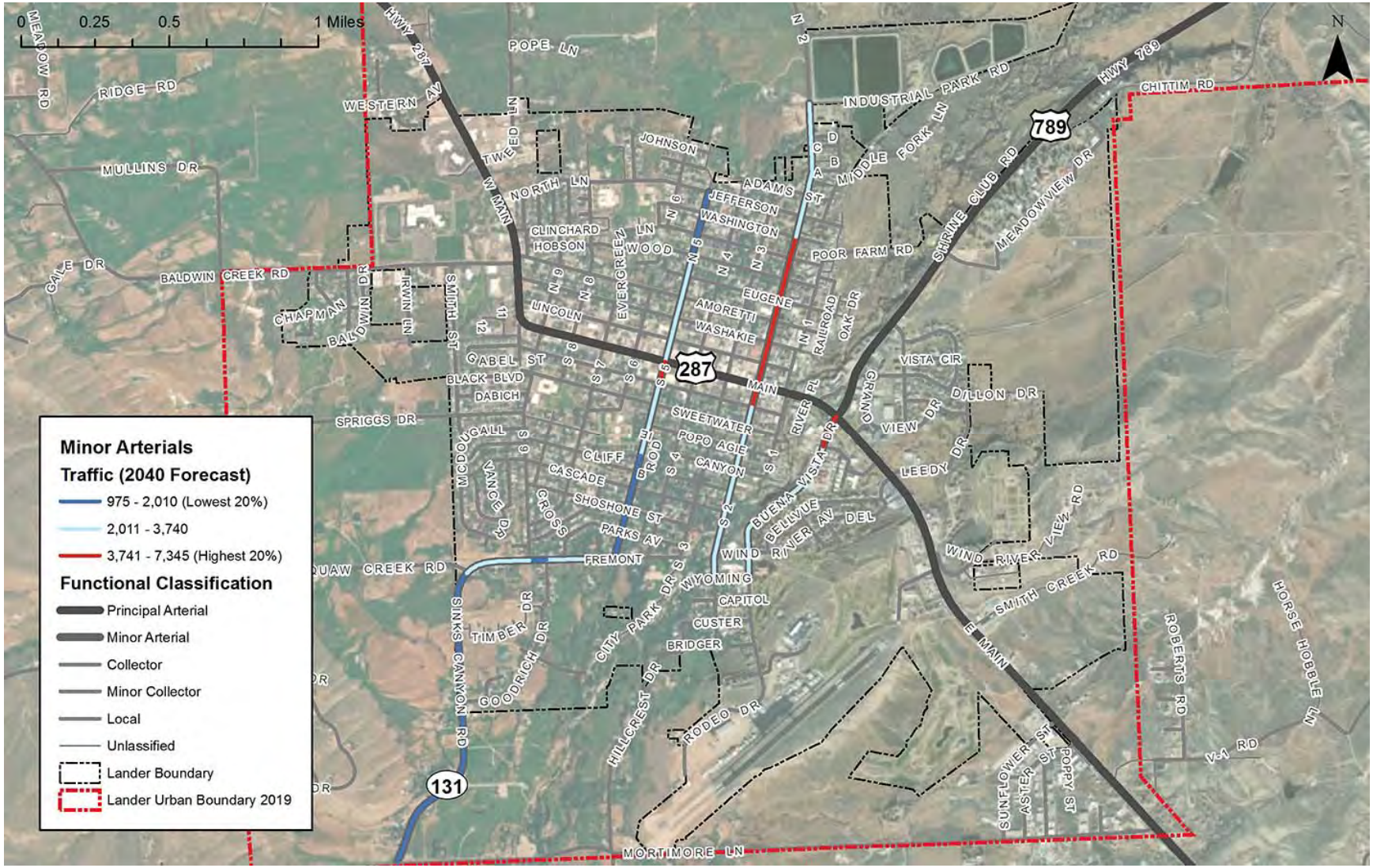


Figure 9. Collector Analysis: Traffic Volume Outliers

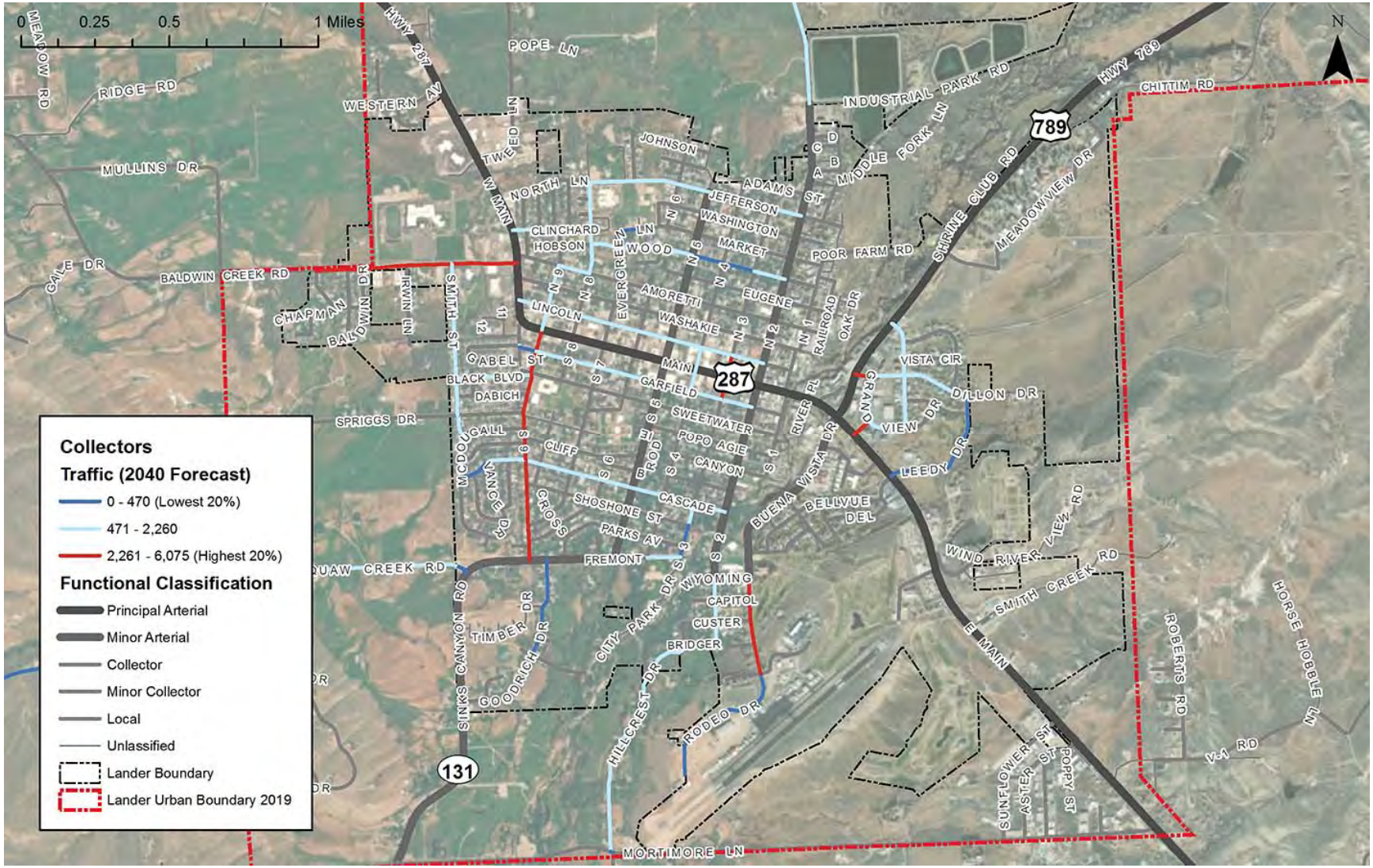


Figure 10. Local Analysis: Traffic Volume Outliers

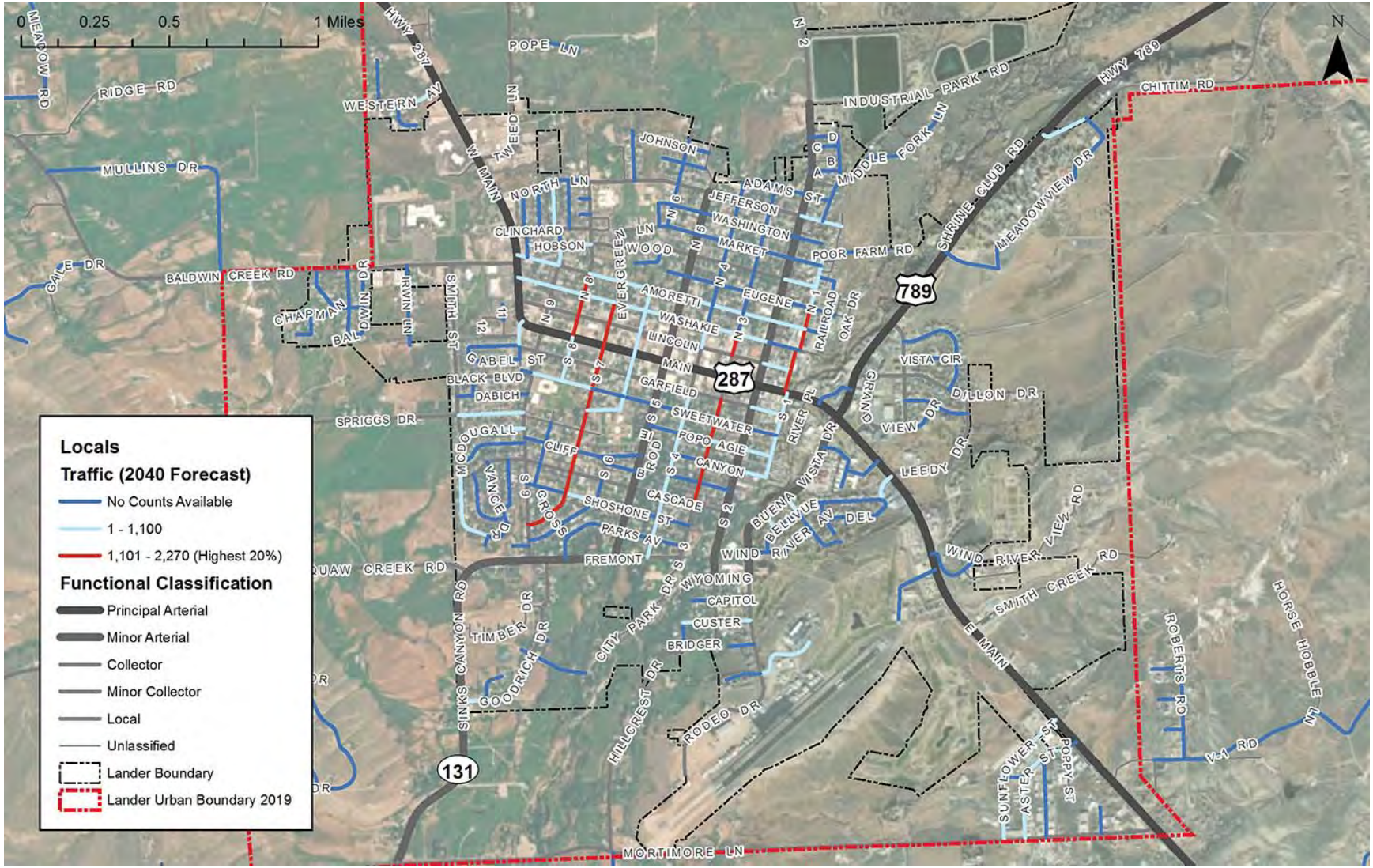


Table 3. Functional Classification Recommendations

Functional Classification	Recommended Changes
Principal Arterial	The roadways currently designated under this classification (US 287, US 789) carry the highest traffic volumes within Lander and serve as the primary entrances/exits to the city while also providing connections to adjacent areas. • **No recommended changes.**
Minor Arterial	The roadways currently designated under this classification (2nd Street, 5th Street, Fremont Street, and Sinks Canyon Road) succeed in augmenting the Principal Arterial system and providing connections to other roadways throughout the area. The highest traffic volumes within this designation occur on 2nd Street North but do not rise to the level of Principal Arterial as this roadway does not provide connections to other nearby urban areas. The lowest traffic volumes within this designation occur on 5th Street South, Fremont Street, and Sinks Canyon Road. Despite these lower volumes, it is important to recognize the role these roads play in connecting Lander to areas such as Sinks Canyon Park via Highway 131 and helping to distribute traffic from Main Street to the southern portions of the city. • **No recommended changes**
Collector	Multiple roadways in Lander fall under the Collector designation. Current Collector roadways with the lowest traffic volumes are generally scattered throughout the city along short roadway segments. Therefore, no roads are recommended for downgrade to the Local classification. Notable roadways with the highest traffic volumes include Baldwin Creek Road, 9th Street South, and Buena Vista Drive south of Wyoming Street. Each of these represents relatively long, continuous sections of roadway. While the eastern segment of Baldwin Creek Road between the Highway and Indian Lookout Drive carries relatively high traffic volumes, these volumes fall substantially outside of the city boundary. This segment does not provide connections to major roadways or destinations and, therefore, is not recommended for a reclassification. This analysis highlighted 9th Street South as a high-volume Collector with the potential for conversion to a Minor Arterial. However, due the presence of key locations such as the Pathfinder High School, residential populations, and existing roadway geometry, the City is seeking methods for reducing and calming traffic on this corridor. If an alternate route for bicycles such as 7th are preferred, then it may make better sense to upgrade 9th Street to a Minor Arterial because of the large volume of local traffic. In order to align with City goals and strategies of trying to shift volumes onto 5th Street, it is currently not recommended that this corridor be upgraded to Minor Arterial. The following recommendations are made for the current Collector Roadways. • **Upgrade Buena Vista Drive south of Wyoming Street to Minor Arterial.** Buena Vista Drive north of Wyoming Street is already classified as a Minor Arterial. Upgrading the southern portion would serve to extend this designation to reach key destinations including the SageWest Hospital and the Hunt Field airport.

Table 3. Functional Classification Recommendations

Functional Classification	Recommended Changes
Minor Collector	Minor Collectors in the area are used to designate Collector roadways outside of the city boundaries. These roadways serve to connect outlying areas with other Collectors and Minor Arterials within Lander. • **No recommended changes.**
Local	Two Local roadways are notable for having relatively high traffic volumes within longer, contiguous segments. These include 7th Street and 3rd Street. These findings indicate that the roads may function as Collector roadways, providing connections between local destinations and the larger transportation network. During the second public meeting, attendees were encouraged to provide comments with respect to these recommendations on 3rd Street and 7th Street to gauge how the community feels about how 3rd Street and 7th Street currently function. The 7th Street segment between Washakie Street and 9th Street South to Collector serves as a key connection between Main Street (US 287) and 9th Street South while also providing access to multiple Local Streets within the area. However, this road has also been identified as a Safe Route corridor. Based on public comments and discussions with the City, 7th Street is not recommended for upgrading from a Local Street to a Collector at this time. The 3rd Street segment parallels the 2nd Street Minor Arterial corridor south of Main Street. The higher traffic volumes compared to other roadways may be the result of drivers using this as an alternate route for direct access to Lander City Park and Sinks Canyon Road via Fremont Street. This type of roadway use is more in line with the Collector designation. The following recommendation is made for Local roads. Note that this recommendation must be balanced against the previous finding that Lander has a lower proportion of Local roads than the typical range provided by FHWA guidance. • **Upgrade 3rd Street south of Main Street to a Collector.** This corridor serves as a key connection between Main Street (US 287) and Fremont Street and provides connectivity to City Park and Sinks Canyon.

4. Land Use

4.1 Existing Land Use

The distribution of land use types throughout the city are shown in Figure 11 on the following page. Land uses in Lander are predominantly made up of the following types:

- **Commercial:** These land uses consist of retail stores, offices, restaurants and other uses utilized primarily by for-profit businesses. They are heavily clustered around Main Street (US 287) and US 789 with other locations scattered throughout the city, especially north of Main Street. The largest areas of currently vacant commercial parcels are located primarily along

US 287 in southeast and northwest Lander. Commercial land uses make up 13 percent of Lander's total acreage.

- **Public Land:** These land uses generally consist of schools, parks, and open lands. They are located throughout the city and are also located in large parcels outside the city boundaries, particularly east of Lander. Public land uses make up 41 percent of Lander's total acreage.
- **Residential:** These land uses consist of single- and multi-family dwelling units and located throughout the within Lander as well as outside of the city boundary. Residential land uses make up 32 percent of Lander's total acreage.

The remaining 14 percent of land use can be attributed to agricultural and industrial land use. Very little industrial land is located within the city with small areas located along US 287 southeast of the city boundary and along Mortimore Lane to the south of the city. The land surrounding Lander predominantly Agricultural, Residential, and Public Land.

The land use types within Lander are shown in Figure 11.

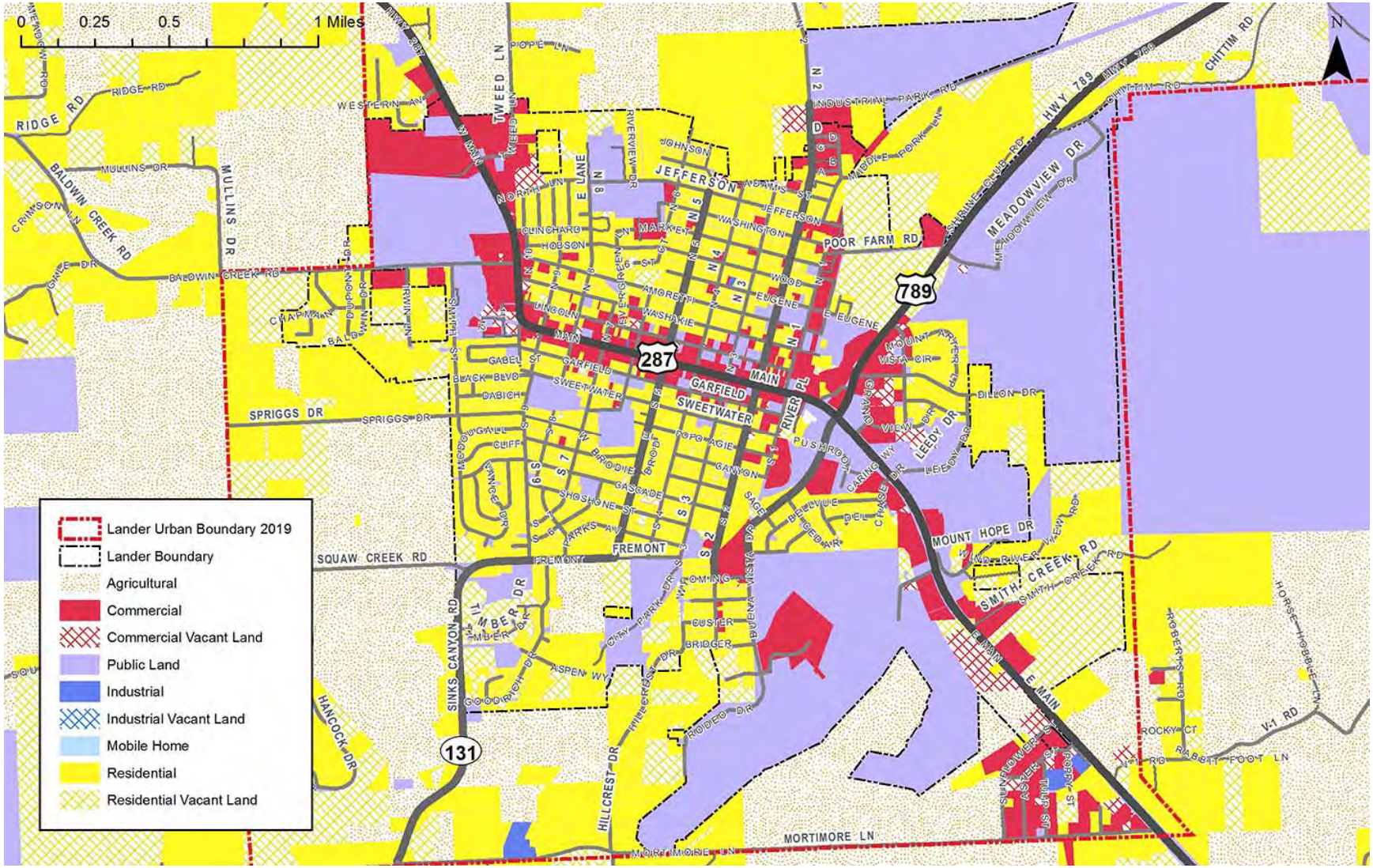
4.2 Transportation Impacts of Potential Development

According to the 2012 Lander Master Plan, 92 percent of the land within the city has been developed. The remaining undeveloped acreage consists of 45 acres zoned for commercial development and 100 acres zoned for residential development. This translates to approximately 492,000 square feet of commercial space and 200 single family residential dwellings that may be added to the city. Developments in these areas—as well as infill development and redevelopment of existing uses—would result in additional trips on the transportation network, potentially necessitating transportation improvements.

Full development of the currently vacant land uses would result in approximately 1,476 additional daily trips on the Lander transportation system (assumes an average rate of 9.44 trips per dwelling unit for residential land use and 30 trips per 1,000 square feet for commercial land use)[5]. Since the vacant land areas are dispersed throughout the city and are generally located in areas adjacent to the Principal Arterial and Minor Arterial networks, these additional trips are not anticipated to have a significant impact on the current transportation network. Aside from this limited anticipated impact, developments in outlying area should also consider how to effectively allow users to access the site via alternative transportation means such as bicycles and pedestrians.

[5] Source: Institute of Transportation Engineers Trip Generation Manual, 10th Edition, based on expected land uses.

Figure 11. Lander Land Use (2012 Master Plan)



5. Transportation Network Analysis

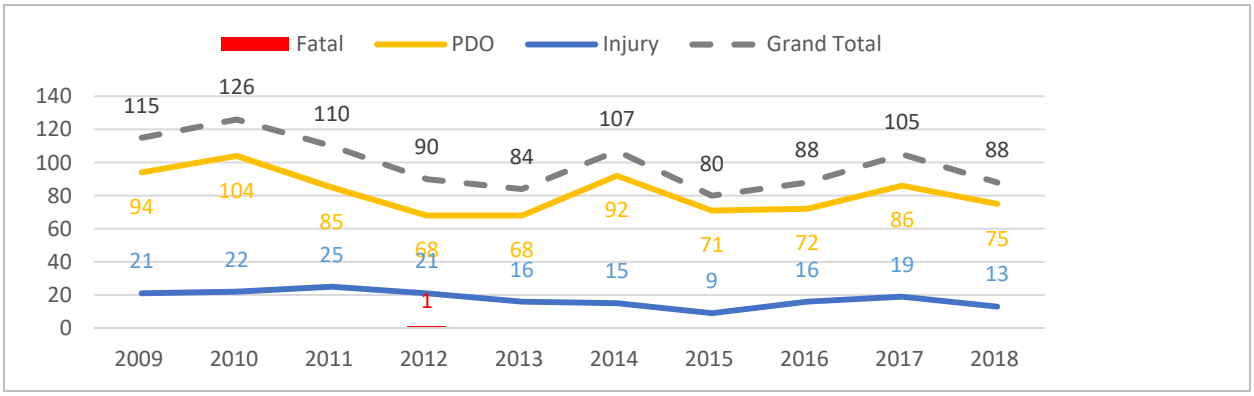
This section includes a detailed analysis of the Lander transportation network, including a brief discussion of roadway jurisdiction, a crash analysis, a discussion of a potential additional river crossing to improve overall connectivity, and the identification of potential improvements to address specific deficiencies of the network.

Jurisdiction for the roadways in Lander is shown in Figure 13. Roadways are predominantly locally owned, with the exception of US Highways 287 and US 789. State Highway 131 and multiple County-owned roads are also present on the edges of the city boundary. These highways connect to roadways under local jurisdiction within the boundary.

5.1 Crash Analysis

Crash history for the City of Lander was assessed for years 2009 through 2018. Over this 10-year period, 993 crashes were recorded. Of these, only one was a fatal crash, 177 were injury (or possible injury) crashes, and the remaining 815 were property damage only (PDO) crashes. The single fatal crash occurred in 2012. Annual crash history over this time period is shown in Figure 12. Annual crashes have remained relatively stable with approximately 100 crashes per year over the analysis period.

Figure 12. Crash History by Severity (2009 to 2018)



The locations of crashes in Lander are shown in Figure 14. Crashes are predominantly located along or adjacent to Main Street with the highest concentration occurring on the east side of Main Street between 3rd Street and 1st Street. Other areas with high concentrations include the intersection of US 287 and US 789, and the intersection of Main Street with 9th Street. With regard to crash severity, nearly all of the Suspected Serious Injury crashes have occurred along the Main Street corridor through the heart of the city. The less serious injury and PDO crashes are more evenly dispersed throughout the city. It is worth noting that 40 crashes involving deer are included in this crash data. Due to the mountainous and rural terrain surrounding the city, the presence of deer in and around the transportation system is a common occurrence. At more than five percent, deer-related crashes make up the largest share of PDO crashes following collisions with parked and moving vehicles.

Figure 13. Roadway Jurisdiction Severity

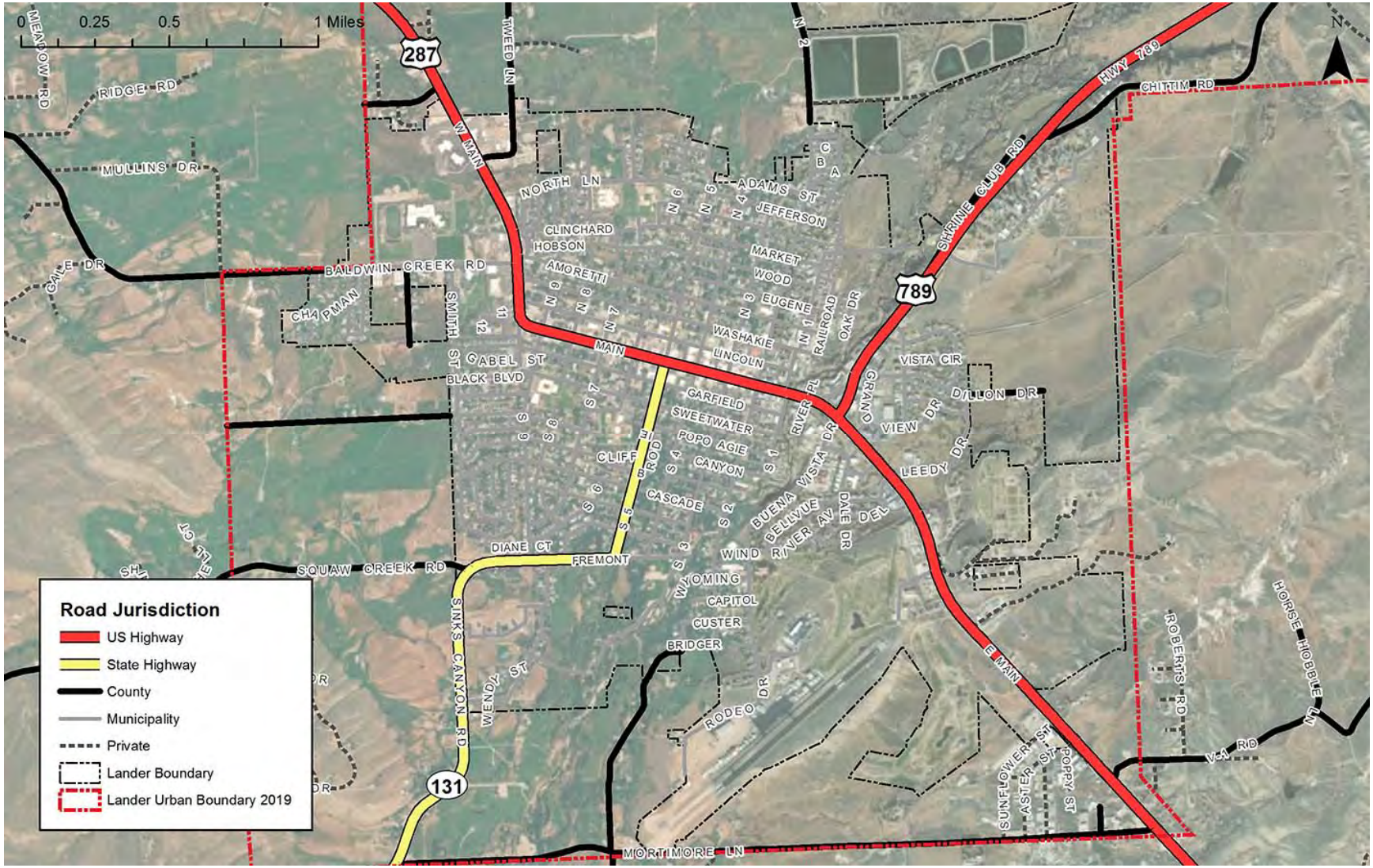
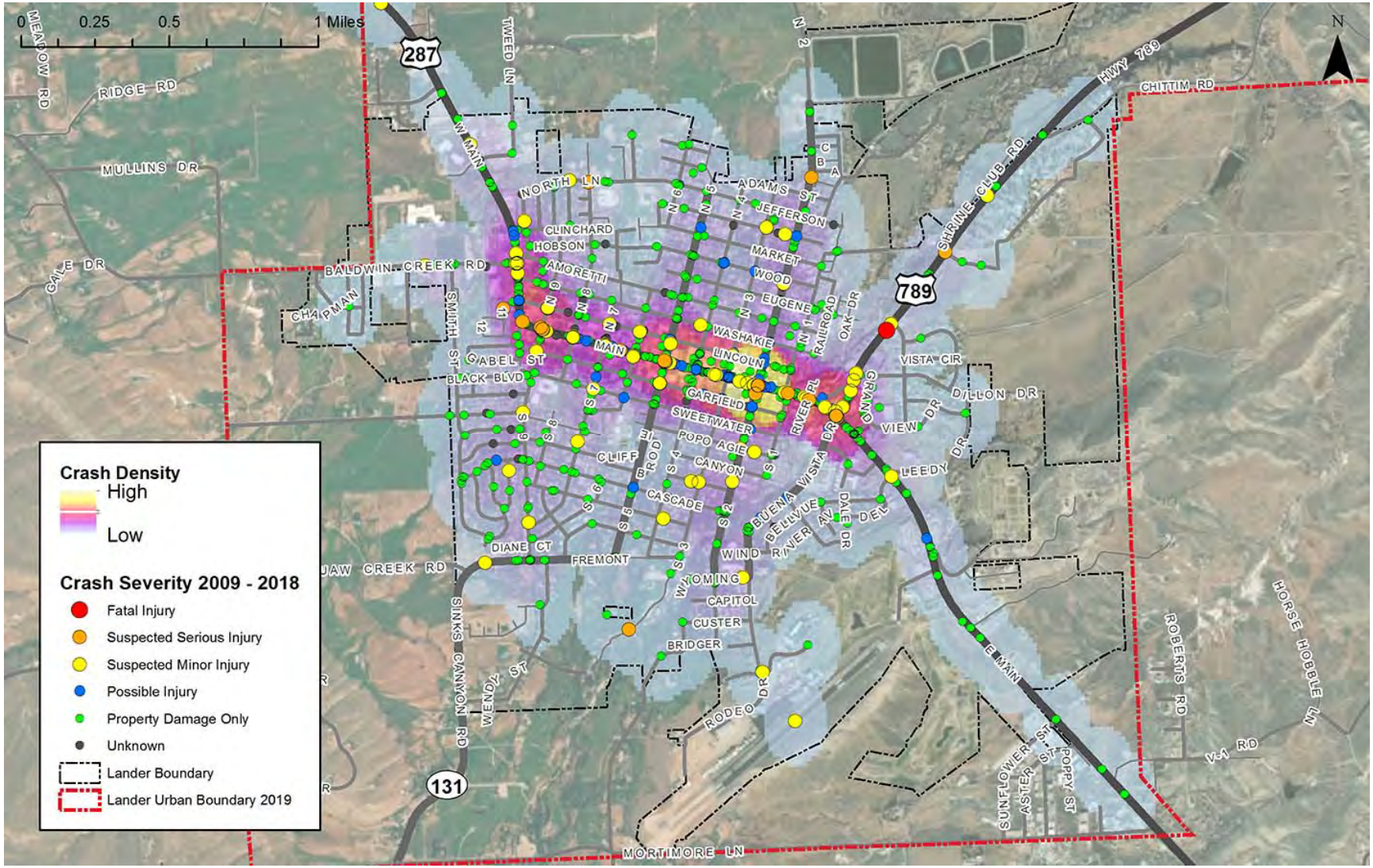
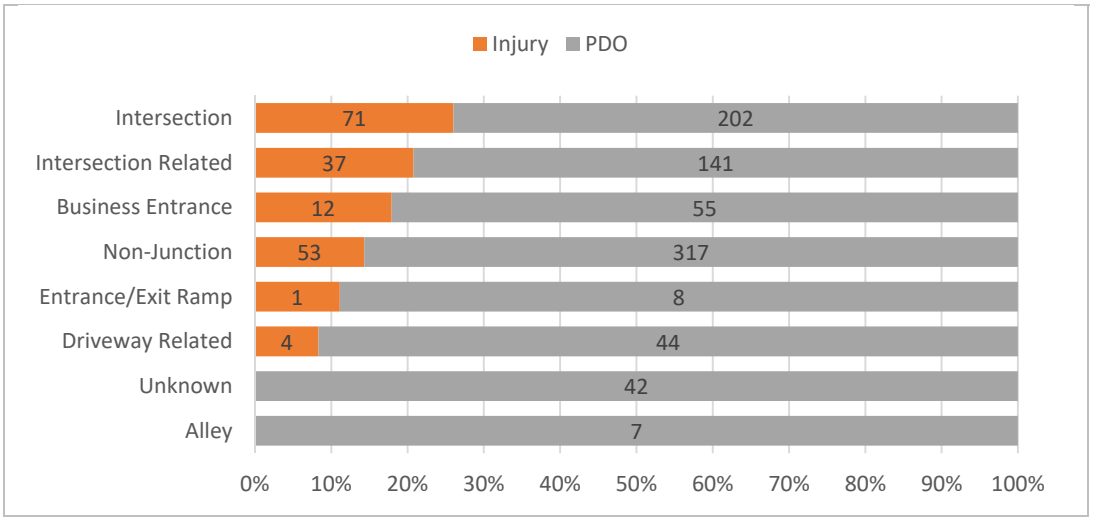


Figure 14. Crash Locations by Severity (2009 to 2018)



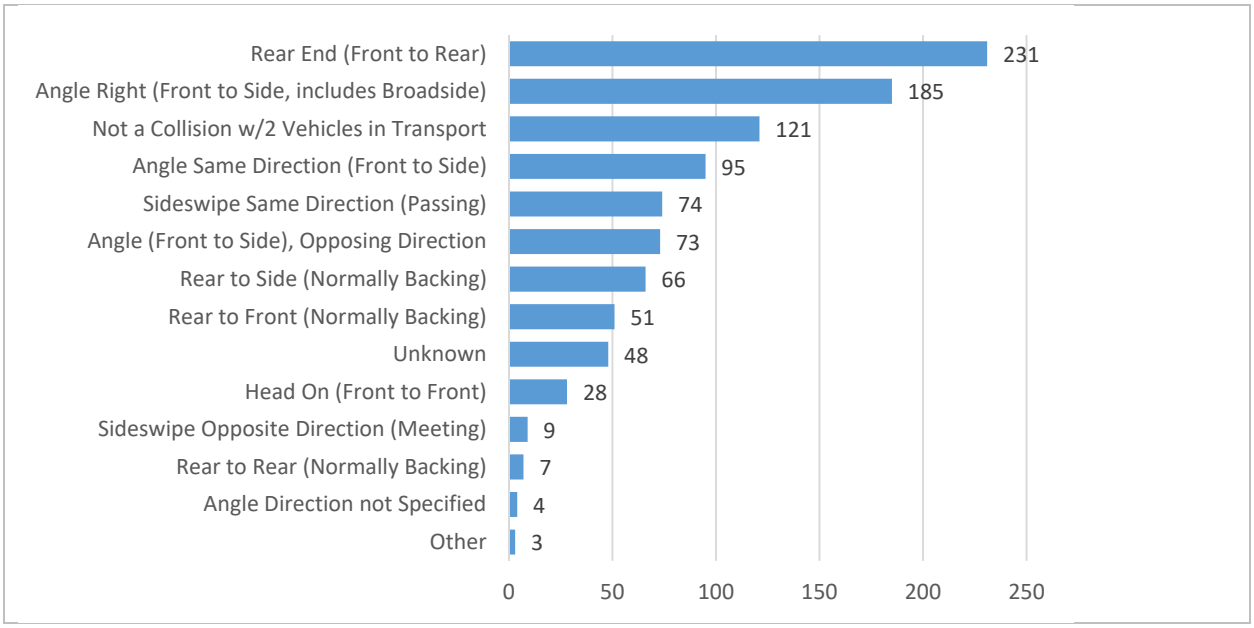
As shown in Figure 15, intersection and intersection-related crashes typically result in a higher proportion of injury crashes. This is followed by crashes at business entrances, non-junctions, entrance/exit ramps, and driveways. No injuries were recorded at crashes occurring in alleys during this time period.

Figure 15. Proportion of Injury Crashes by Crash Location



Rear end crashes were recorded with the highest frequency during the analysis period followed by right angle crashes and crashes not involving a collision between vehicles (e.g., run of road). Combined, these three crash types comprise more than half (54 percent) of all crashes during this time period.

Figure 16. Crashes by Crash Type



5.2 Deficiencies and Potential Improvements

Multiple transportation network deficiencies were identified through discussions with City staff, public outreach, and qualitative and quantitative assessments of the system. The following section summarizes these deficiencies as they relate to Lander's vehicular, pedestrian, and bicycle systems and provides potential solutions to address the underlying issues.

5.2.1 Additional River Crossings

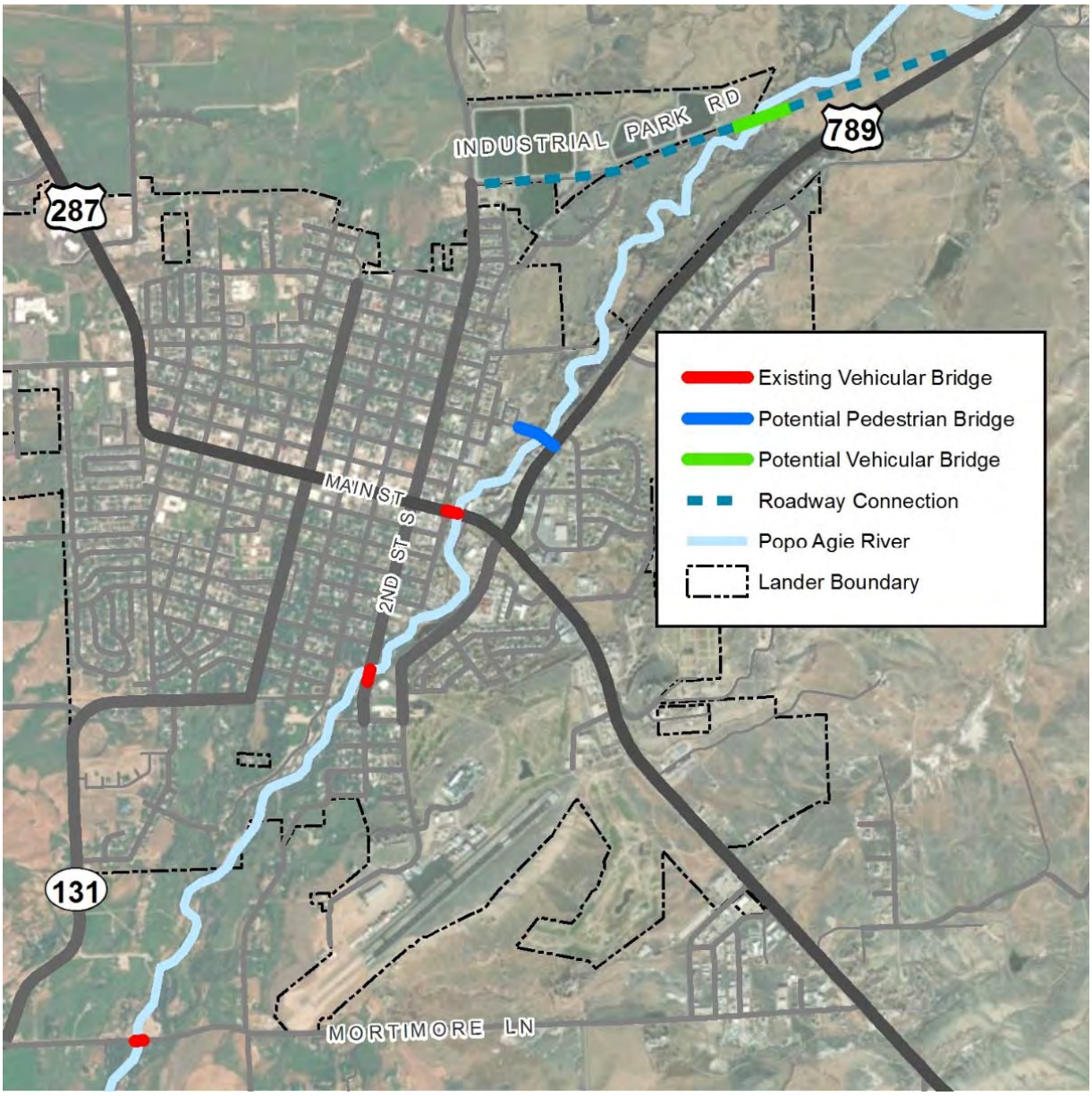
The City of Lander is bisected by the Middle Fork of the Popo Agie River. This natural feature presents challenges for connectivity between the eastern and western portions of the city. As shown in Figure 17, existing bridge crossings are located on Main Street (US 287), 2nd Street South, and Mortimore Lane. The largest traffic volumes exist on the Main Street bridge with the remaining bridges serving as supplementary.

Redundant bridge structures provide system resilience in the event of a natural or manmade disaster that prevents the use of the Main Street bridge. These other structures also provide more efficient access for some trips where the Main Street bridge does not provide the most direct route. While multiple bridge options are present in the southern portion of the city, no major bridges are located north of Main Street. Two potential additional bridge locations are discussed below.

- **Eugene Street Pedestrian Bridge:** Based on public feedback, there is a strong desire for additional pedestrian connections to the areas along US 789. A potential locations for a pedestrian-only bridge exists as an extension to Eugene Street in Lander.
- **Industrial Park Road Bridge:** In previous plans and studies, Industrial Park Road has been identified as a potential location for a new arterial roadway. An extension of this road to the east could crossing the Popo Agie and connect with US 789 just south of Beebe Road.

The need for additional crossings was discussed at the second public meeting on February 19, 2020. The general consensus was that funding would be better served improving the existing bridge on Main Street instead of pursing additional crossings. In the event that the Main Street Bridge is damaged, and there is an alternate route with an existing bridge closer to Main Street located on 2nd Street.

Figure 17. Existing and Potential River Crossings



5.2.2 2nd Street & Main Street Intersection

As shown in the Crash Analysis, this intersection (Figure 18) was identified as the most significant crash hotspot in the Lander area. A total of 48 crashes occurred at this intersection from 2009 to 2018, nearly five percent of all crashes in the city. Nine of the crashes involved an injury with the remaining 39 resulting in property damage only. The highest proportion of accident type was rear end crashes (20 incidents) followed closely by right angle crashes (19 incidents). For the 19 right angle crashes, four were from vehicles travelling in opposing directions, four involved vehicles travelling in the same direction, and the remaining 11 were the result of vehicles travelling at right angles to each other (i.e., one on Main Street and one on

2nd Street). Two crashes have involved pedestrians and one crash involved a bicyclist. The following improvements may help improve safety at this intersection.

- **Add All-Red Clearance Interval:** The City and WYDOT should consider the implementation of an all-red clearance interval or an extension of the existing interval if already in place. The additional all-red time would provide more time for vehicles to clear the intersection before cross traffic is given the green light. These improvements have been shown to reduce right angle crashes by 15 percent (Source: FHWA.Desktop Reference for Crash Reduction Factors)
- **Provide Protected Left-Turn Phase:** The current traffic signal is configured for permissive left turns, which requires motorists to judge the speed and distance of approaching vehicles to determine an appropriate gap for completing their turning movement. Adding a protected left-turn phase (and the additional signal equipment necessary to operate this phasing) has been shown to reduce right angle crashes by 56 percent and rear end crashes by 35 percent. (Source: FHWA.Desktop Reference for Crash Reduction Factors)

Figure 18. 2nd Street & Main Street Aerial

5.2.3 8th Street & Main Street

The intersection of 8th Street with Main Street has been identified as a location that is difficult for pedestrians and bicyclists to navigate. The intersection is currently two-way stop-controlled for traffic on 8th Street. The nearest signalized intersections on Main Street are 9th Street to the west and 7th Street to the east. Each of these intersections is approximately 550 away. There are no marked crosswalks at the 8th Street intersection. Pedestrians must travel approximately 78 feet to cross Main Street at this intersection. Assuming a walking speed of 4 feet/second, this translates to nearly 20 seconds needed to safely cross the road.

From 2009 to 2018, there were a total of seven crashes. Five of these crashes were right-angle. The remaining two were a collision with a fixed object. Two crashes resulted in suspected minor injuries and the remaining crashes resulted in property damage only.

Encouraging pedestrians to cross at adjacent intersections equipped with traffic signals may be the most effective solution. However, other potential improvements that would address pedestrian and bicycle difficulties include:

- **Pedestrian Signing and Crosswalk:** Installing crosswalk markings and pedestrian signage would increase the visibility and motorist awareness of pedestrians at this location. The installation of pedestrian signing has been shown to reduce pedestrian crashes by 15 percent.
- **Curb Extensions:** Curb extensions would reduce the distance traveled by pedestrians by extending the curb into the parking lane on Main Street on both sides of the roadway. This could reduce pedestrian travel distance by as much as 16 feet and would also improve pedestrian visibility. These benefits would need to be weighed against the potential impacts to vehicular traffic, particularly the impacts to snow plowing operations.
- **Median Pedestrian Refuge:** Main Street is currently configured as a five lane roadway (two travel lanes in each direction with a center left turn lane) with parking lanes on each side. The replacement of the center turn lane at this intersection with a raised median with pedestrian refuge would allow pedestrians to cross the road in two phases. This solution would require the elimination or restriction of left turns off of Main Street at this intersection in one or both directions and would also need to be balanced against impacts to vehicular traffic and snow plowing operations. This type of improvement would be most effective if implemented as a corridor-wide initiative rather than at a single location.

Figure 19. 8th Street & Main Street Aerial

5.2.4 Designated Access Route to Sinks Canyon Road

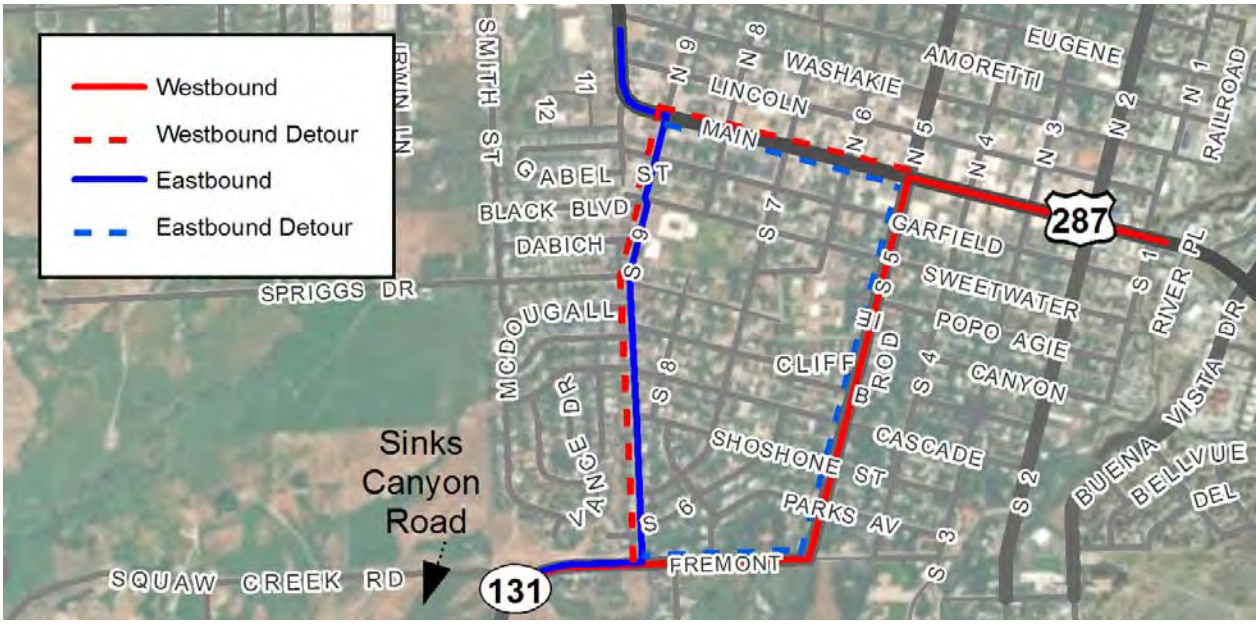
Sinks Canyon Road (Highway 131) connect Lander to Sinks Canyon State Park, the "Loop Road", and multiple hiking, fishing, hunting, and sightseeing. Access to Sinks Canyon Road is primarily via Main Street to either 5th Street or 9th Street (and also 3rd Street) (Figure 22). The City is considering the designation of one of these routes as the primary access route for through traffic to Sinks Canyon Road. This would help concentrate traffic—particularly heavier commercial vehicle traffic—to the roadway that is better suited to handle it.

- **5th Street:** This road is the most direct route for traffic arriving from the east. It is currently designated as a Minor Arterial road and carries 1,724 vehicles per day as through trips to Fremont Street (data taken near Fremont Street intersection shown in Figure 20) from Main Street. Rerouting westbound traffic from 5th Street to 9th Street would add one minute to travel time and 0.3 miles to travel distance and some traffic might continue taking 5th Street since it's shorter.
- **9th Street:** This road is the most direct route for traffic arriving from the west. It is currently designated as a Collector road, and carries 1,963 vehicles per day as through trips to Fremont Street (data from Fremont Street intersection Figure 21) from Main Street, which is more than 5th Street at 1,724 through trips per day. Rerouting eastbound traffic from 9th Street to 5th Street would add one minute to travel time and 0.6 miles to travel distance.

In addition to general travel time and distance characteristics, it is important to note the presence of the Pathfinder High School and many residential areas along the 9th Street corridor. The corridor is currently designated as a Safe Route to School and dedicated bike lanes are proposed for implementation. The City is also pursuing additional traffic calming measures and 4-way stop control at two intersections to improve safety for this corridor with high multi-modal activity.

To supplement and assist with these overall City goals, it is recommended that 5th Street be chosen as the designated access route to Sinks Canyon Road. This designation in tandem with the traffic calming approaches noted above for 9th Street, will help to reduce volumes of through-traffic on 9th Street and redirect it to 5th Street which is better suited to handling higher volumes of traffic. Furthermore, 5th Street is also designated as Highway 131, allowing for shared maintenance between the City and WYDOT for wear and tear related to additional traffic on the roadway.

Figure 22. Sinks Canyon Road Access Routes



5.2.5 Baldwin Creek Road and Smith Road Intersection

The intersection of Baldwin Creek Road and Smith Road is a three-way stop-controlled intersection (Figure 23) used as a key access to the Baldwin Creek Elementary School. The High School and Baldwin Creek School are adjacent to Baldwin Creek Road. The intersection is heavily used by students walking to/from school in the AM and PM peaks. The intersection is perceived as a safety concern because many vehicles on Baldwin Street not stopping for pedestrians even when crossing guards are present

Between 2009 and 2018 five crashes occurred near the intersection. These included two rear-ends crashes, two sideswipe crashes, and one crash with a sign post. No pedestrian or bicycle crashes have been recorded, but many close calls have been noted by school staff. Relative to other locations in the city, this intersection is not identified as a crash hotspot (see Section 5.1).

The following pages provide a brief discussion of potential solutions to the safety issues at this crossing. Regardless of which option is pursued, the City should also implement a pedestrian ramp for the crosswalk on the north side of Baldwin Creek Road in order to comply with ADA requirements for accessibility.

Figure 23. Baldwin Creek Road/Smith Road Aerial Road Diet

OPTION 1: ROAD DIET

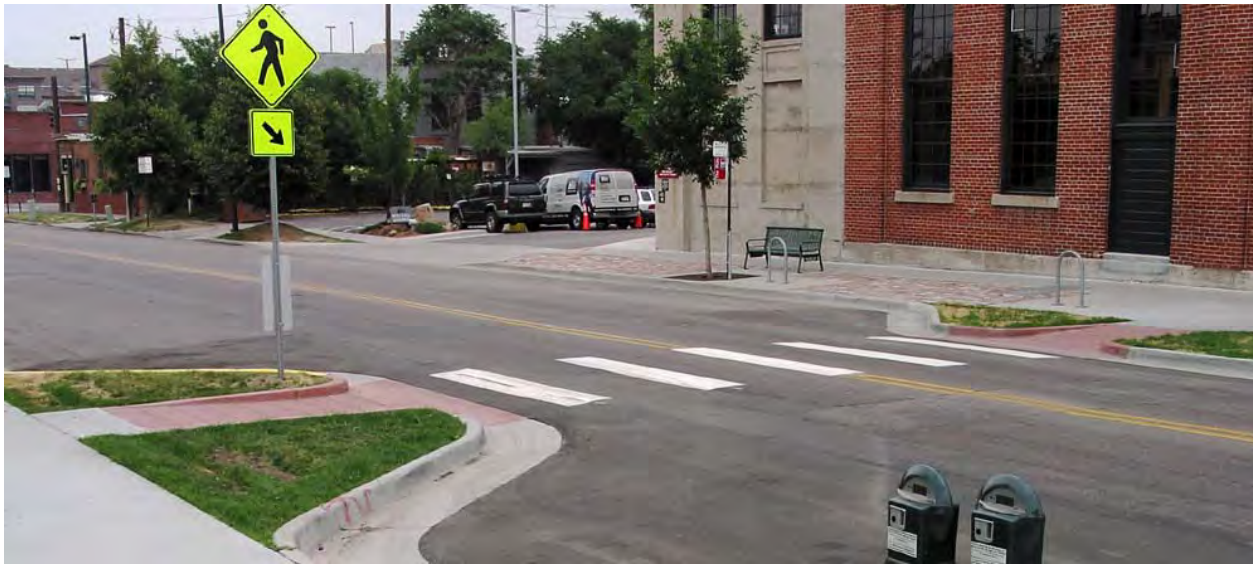
This segment of Baldwin Creek Road is currently configured as a four-lane section (two lanes in each direction). Wide roads with multiple lanes and shoulders have the effect of increasing average driving speed. One potential solution for increasing safety at this location is the implementation of a “road diet”, reducing the road from four lanes to three lanes (two through lanes with a center turn lane). This would have the effect of slowing traffic overall and would also reduce the number of lanes pedestrians would need to cross.

This option could be especially effective if used in combination with curb extensions (Photo 2) at the crosswalk. Curb extensions would reduce the distance pedestrians are required to travel across the intersection, while also providing a physical roadway feature that increases the visibility of the crosswalk to motorists. The 3-lane cross-section provides more than enough capacity currently and into the future forecasted volumes in 2040. 3-lane sections can accommodate 17,000 ADT in many situations, and Baldwin Creek is forecasted to carry approximately 4000 vehicles per day ADT in 2040.

Taking this approach even further, the City may wish to consider eliminating left-turn lanes at this intersection entirely. As a general rule of thumb, the FHWA Highway Capacity Manual recommends that left-turn lanes be considered when peak hour turn movements exceed 100 vehicles per hour. Turning movement counts collected for this study showed that only 81 vehicles make a westbound left turn at this intersection during the peak hour. Under the current configuration, it is possible that westbound through vehicles are treating the right lane as a bypass to avoid left-turning vehicles and are not seeing the stop sign. Reducing the road to a two-lane or three-lane section would eliminate the potential for this bypass movement and reinforce the requirement that all vehicles must stop at the intersection. Prior to implementation

of this strategy, a traffic study should be conducted with more detailed turning movement count data to better understand any potential impacts of this option to traffic flow at the intersection.

Photo 2. Curb Extension Example



OPTION 2: IMPROVED STOP SIGNS AND FLASHING ADVANCE WARNING SIGNS

The approaches to the intersection are currently equipped with passive advance warning signs indicating the presence of a pedestrian crossing. Additionally, the stop signs are equipped with flashing red beacons to improve the visibility of the stop signs. Motorist awareness of the stop signs may be improved through either an increase in the size of the stop sign, or the installation of advance flashing beacons at advanced crosswalk signs. These implementations are estimated to reduce overall crashes by 19 and 70 percent, respectively based on FHWA crash modification factors.

OPTION 3: PEDESTRIAN HYBRID BEACON

One potential solution for address the issues at this intersection is the installation of a Pedestrian Hybrid Beacon (PHB). This is a traffic control device that is activated by pedestrians only when need either through the use of a pedestrian button or a detection system (Photo 3). The system includes overhead flashing lights and signage to increase the visibility of the crossing. Studies conducted in Tucson, Arizona found a 29 percent reduction of all crashes and a 69 percent reduction in pedestrian crashes after the installation of PHB systems.

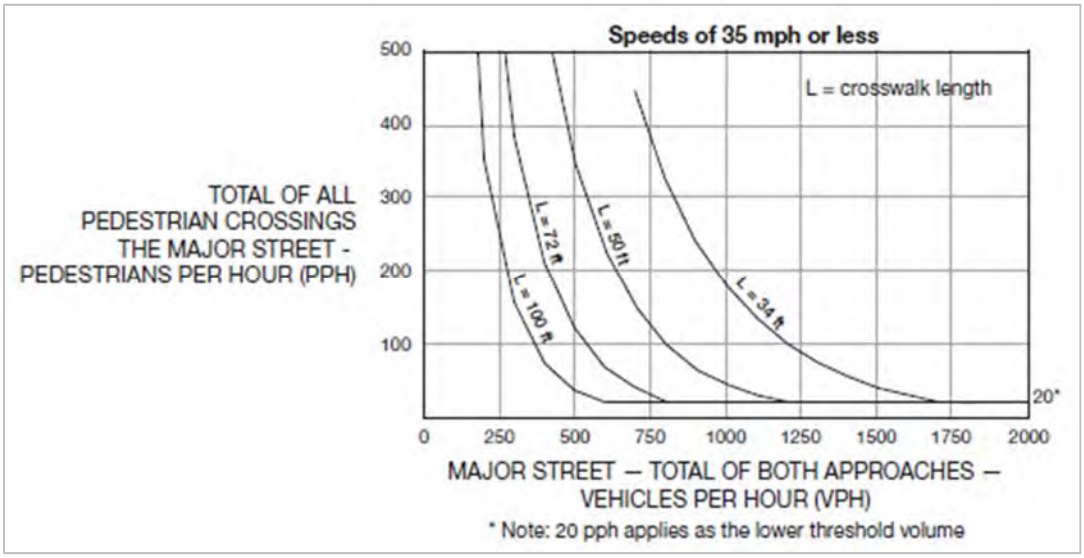
Photo 3. Pedestrian Hybrid Beacon (PHB) Example

Source: FHWA

The Manual on Uniform Traffic Control Devices (MUTCD) provides guidance on conditions where use of PHB systems is warranted. Figure 24 shows the recommended thresholds for PHBs based on major street vehicles per hour, total pedestrian crossings, and pedestrian crossing length for low-speed roadways. Traffic counts collected on December 17, 2019, found major street approach volumes of approximately 440 total. With a crossing length of approximately 50 feet, pedestrian volumes in excess of 500 per hour would be necessary in order to meet the MUTCD threshold.

Based on these findings, the use of PHBs as a safety device at this location is not recommended until such time as the MUTCD threshold is met. Furthermore, a crossing guard is present at this location during peak periods and likely has similar levels of impact to a PBH implementation at a much lower cost.

Figure 24. MUTCD Thresholds for PHB



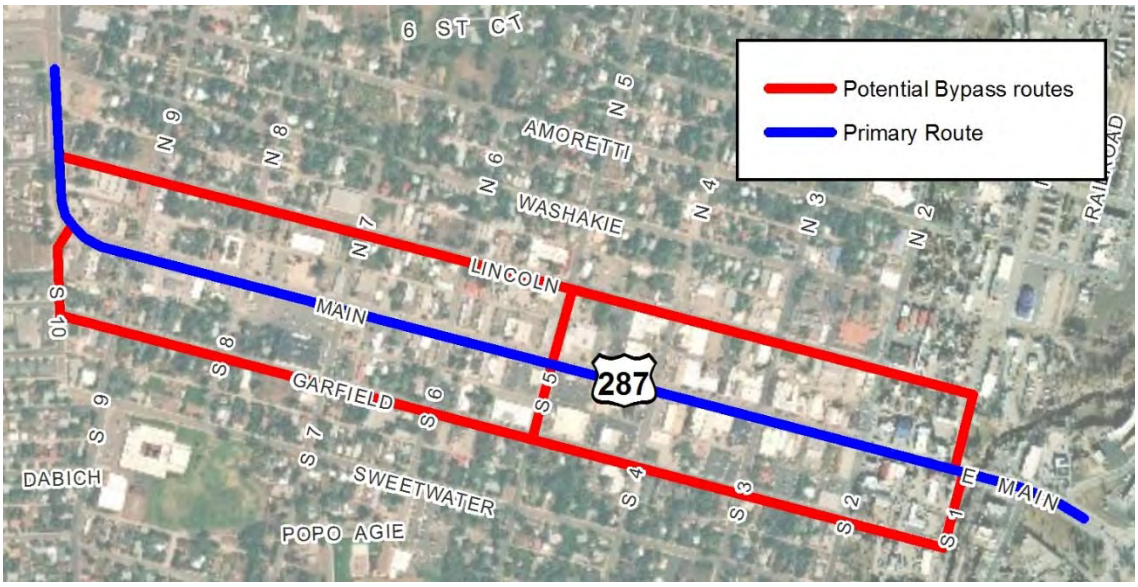
Source: MUTCD

5.2.6 Evaluation of Main Street Bypass Routes

Main Street (US 287) is by far the highest volume roadway in Lander. This is largely due to its status as a US Highway and the main through route. With the high travel demand on this route, some in the community often have the perception that Main Street is congested, particularly in peak hours. For traffic travelling through Lander without a destination along Main Street, alternate bypass routes may be desirable to reduce travel time and increase travel time reliability.

Potential parallel roadways which could serve this purpose include Lincoln Street to the north and Garfield Street to the south (Figure 25). Both of these streets are relatively low volume with an average of 789 vehicles per day on Garfield and 1,359 vehicles per day on Lincoln compared to 14,000 vehicles per day on Main Street. Both Lincoln Street and Garfield Street are well suited as bypass routes since each intersection along these streets is side street stop-controlled, allowing simple, unobstructed access for through movements. Utilizing these as bypass routes could result in less traffic on Main Street and would potentially make Main Street more pedestrian and bicycle friendly for shopping.

Figure 25. Potential Main Street Bypass Routes



Traffic entering Lander from the east could use 1st Street to access Lincoln Street and proceed westbound to intersect with Main Street. Traffic entering Lander from the west could use 10th Street to access Garfield Street and proceed eastbound, using 2nd Street to rejoin Main Street prior to the river crossing.

A summary of the expected impacts of the designation of these streets is shown below:

- **Passenger Vehicle Bypass Traffic:** Using Google Maps to estimate travel times during peak hours shows that the use of either proposed bypass route is expected to increase travel times by approximately one minute in both directions. This indicates that there would be little incentive for drivers to utilize the bypass routes under normal circumstances. However, during times of high congestion—or in the event of a collision or other event obstructing Main Street—these bypass routes may be more feasible.
- **Freight Vehicle Bypass Traffic:** Many freight and heavy commercial vehicles have difficulty navigating sharp turns in urban areas. For this reason, it is unlikely that freight vehicles would utilize the bypass routes, even if Main Street is experiencing high congestion.
- **Bicycle Traffic:** Under the current roadway configuration, Lincoln and Garfield Streets make for ideal alternate routes for bicycle traffic desiring a lower volume alternative to Main Street and a currently striped as shared use with “sharrows”. Based on the expected results noted above for passenger and freight vehicle traffic, it is unlikely that the bypass routes would divert sufficient volumes of traffic to make Main Street more appealing to bicyclists. In fact, the extra traffic diverted to Lincoln Street and Garfield Street would make these streets less ideal for bicycle traffic.
- **Increased Local Road Maintenance:** Diverting traffic from Main Street would increase the wear and tear on Lincoln Street and Garfield Street, leading to increased maintenance costs over time.

Based on the expected impacts discussed above and also based on the recommendations made in the Safe Routes to Schools and Walkable, Bikeable Routes Study, it is recommended that Garfield Street and Lincoln Street be maintained as bypasses for bicycle traffic. Bypasses on Garfield Street and Lincoln Street would have impacts to residential neighborhoods including increased traffic volumes, additional noise, and negative impacts on pedestrian and bicycles. A passenger vehicle bypass would likely increase speed which is not the desired outcome for a shared use road. A fright vehicle bypass would be difficult to implement for the reasons mentioned above. The increase in local road maintenance from if these roads become vehicular bypasses is another important factor the City of Lander should consider if implementation of bypasses becomes something for consideration in the future.

5.2.7 Pedestrian Signal Timing

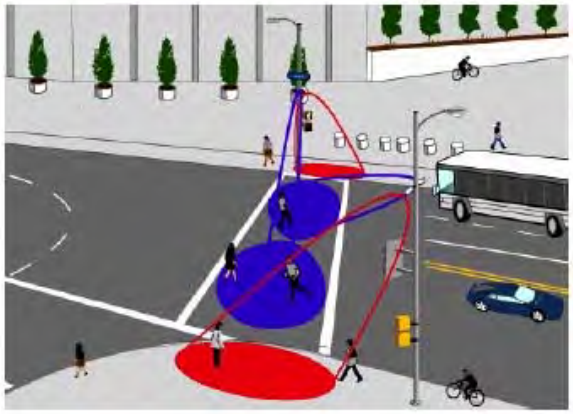
Based on feedback from the public and Fremont County School District No. 1, the City and WYDOT are aware of pedestrian signal timing issues at the intersections of Main Street with Baldwin Street and 9th Street. Under the current configuration, there is a pedestrian button at each crosswalk to cross Main Street. The signals are actuated, meaning if the buttons are not pushed, there is not enough walk time provided for pedestrians to safely cross the street. Pedestrians at these locations are predominantly students accessing either Pathfinder High School or Baldwin Creek Elementary School. These students often forget or neglect to push the

pedestrian button, potentially causing a dangerous situation in which they are in the road when traffic is given the green light.

The following section outlines various strategies that may be employed to address this issue:

- **Adjust Existing Signal Timing:** One of the simplest solutions is a retiming of the existing signal timing to provide a longer signal for the cross street traffic. Increasing the cross street green phase would provide pedestrians with enough time to cross the street regardless of whether they have pushed the button or not. However, due to the substantial imbalance in traffic volumes between Main Street and the cross streets, taking this approach could have severe impacts to traffic delay on Main Street. A more detailed traffic impact study should be conducted before considering this strategy further.
- **Adjust Signal Timing for Peak Pedestrian Hours Only:** This strategy takes a similar approach to the one described above. The key difference is that the altered signal timing would only go into effect during peak pedestrian hours, likely correlated with school start and end times. This approach would have a smaller impact on traffic delay than changing the signal timing throughout the day, but the impact could still be substantial since peak pedestrian and peak vehicle times are likely to overlap. As with the first strategy, a detailed traffic impact study should be conducted before considering this strategy further.
- **Pedestrian Detection System:** A more complicated technological solution is the installation of pedestrian detection systems at these signals (Photo 4). Pedestrian detection systems are typically based on either microwave or infrared technology and are set up to detect pedestrians at a targeted location (e.g., the curb next to the crosswalk or within the crosswalk itself). These systems can be designed to detect when pedestrians are no longer waiting to avoid false signal calls. Systems detecting pedestrians within the crosswalk may also be designed to extend the cross street signal time as necessary. The cost of retrofitting existing traffic signals with this technology ranges from approximately $10,000 to $70,000 depending on the sophistication of the design and other factors such as compatibility of the current signal controller.

Photo 4. Example Pedestrian Detection System



Source: FHWA

6. Multi-modal Considerations

It is important that Lander's transportation system is designed to accommodate all users, not just vehicles. In addition to this Long Range Transportation Plan, the City of Lander is conducting a Safe Routes to Schools and Walkable, Bike-able Routes Study. In that study, Safe

Route corridors with ADA accessible continuous sidewalks are being proposed to improve pedestrian mobility throughout Lander and provide safe corridors for connectivity between employment, education centers, parks and recreation, library and other community use spaces, health and legal services, and grocery stores, and shopping.

Additionally, improvements are also being proposed to the Lander Area Pathway System, which includes streets and roads where bicycles and vehicles share the road, as well as off-road pathways. As part of that plan, there are several streets where a lane diet is being proposed. A lane diet is when the lanes are reconfigured (sometimes with vehicle lanes being removed) or striped narrower than a typical 12-foot wide lane to assist with traffic calming and to provide additional space on the street for bicycles through shared use and/or dedicated bike lanes. One of these streets being proposed for a lane diet is Baldwin Creek Road (discussed in Section 5.2.5). FHWA's *Small Town and Rural Multimodal Networks* and the National Association of City Transportation Officials (NACTO) *Contextual Guidance for Selecting All Ages & Abilities Bikeways* decision matrix were used to develop potential solutions for on-street shared use on streets in Lander.

Generally, streets with a width of 49 feet (curb face to curb face) were determined to be wide enough to accommodate on-street parking and the addition of a dedicated bike lane where traffic volumes were higher. Unfortunately, for streets with a width of only 44 feet (curb face to curb face), there was not enough room to accommodate a dedicated bike lane and keep on-street parking on both sides of the road on roadways with higher traffic volumes. Generally for these types of streets, we are recommending that they become Bicycle Boulevards (where vehicle volumes were low enough).

Please refer to the Safe Routes to Schools and Walkable, Bikeable Routes Study for additional details regarding pedestrian and bicycle related recommendations and alternatives for the transportation network in Lander.

7. Parking Considerations

Generally, residents of cities similar to Lander sometimes perceive that finding parking can sometimes be difficult to find on Main Street, especially right in front of the business that is trying to be accessed. However, typically when reviewed with respect to a one or two block radius of Main Street, there is plenty of on-street capacity within a one- to two-block radius of the main street. The other perception can be that during large events sometimes parking can be an issue. Again this may be something that is just a perception, for those that want to park as close to the event as possible. Although there were no public comments received related to residential or commercial parking on public streets in Lander, there are some locations where changes to parking may improve safety and connectivity.

The Lander City Park provides good amenities for local residents and visitors to Lander. Recreational vehicles (RV) and campers are allowed to overnight camp for free, and there are public restrooms available. Most of the other parks in Lander also have parking available and appear to have capacity for typical use at these locations.

One location that has been mentioned for possible RV parking closer to Main Street is on 1st Street, south of Main Street, adjacent to the Popo Agie River. The on-street parking could be designated as RV/Camper Parking only and would potentially provide visitors a closer walk to down town amenities. This area was evaluated, and there appears to be a 635-foot section where RVs and campers could park. This translated into approximately into 7 to 9 useable spaces. The spaces would need to be large enough for truck/camper combinations to pull into and pull out of when other spaces are being used. These spaces would replace the existing on-street parallel parking, and because of their proximity to the new Chamber of Commerce, may have an impact on parking availability for summer events put on by the Chamber (Lander Live).

The Safe Routes to Schools and Walkable, Bikeable Routes Study discusses parking at a few locations around Lander. Parking improvements are proposed at Gannett Peak Elementary. Additionally, some on-street parking will be impacted by bike lane recommendations to accommodate bike lanes on Main Street (between 9th and Amoretti), Garfield Street, Buena Vista Drive, 2nd Street (between Garfield and Wyoming Street), and 8th Street (between Wood Street and Jefferson Street). The recommendations tried to account for this potentially unpopular, by identifying locations to replace on-street parking that would have the least amount of impact, near locations where commercial properties are prevalent and that already have off-street parking accommodations.

8. Wayfinding Signage

Lander has multiple sites and facilities that serve as key destinations for locals and visitors alike. Navigating to these destinations should be simple and straightforward. This section proposes a list of key Lander Destinations and identifies locations for wayfinding signage that would improve the ability of drivers, pedestrians, and bicyclists to find and navigate to them. The type and placement of these signs are also discussed with the goal of developing a wayfinding signage system that works for all users including drivers, pedestrians, and bicyclists.

Table 4. List of Key Lander Destinations by Category

Category	Destinations
Education	▪ Central Wyoming College—Lander ▪ Lander Valley High School ▪ Pathfinder High School ▪ Lander Middle School ▪ Baldwin Creek Elementary School ▪ Gannett Peak Elementary School
Museum	▪ Museum of the American West ▪ Fremont County Pioneer Museum ▪ Lander Children's Museum
Park/Natural	▪ Lander City Park ▪ Sinks Canyon State Park
Public/ Recreational	▪ Lander Community and Convention Center ▪ Fremont County Public Library ▪ Rodeo Grounds
Medical	▪ SageWest Hospital

A proposed list of key Lander destinations is shown in Table 4 below. The locations of these destinations are shown in Figure 26 on the following page. The destinations are grouped into five primary categories of Educational, Museum, Park/Natural, Public/Recreational, and Medical. To improve ease of navigation, these categories may be used to color-code the wayfinding signage. Examples of this approach are shown in Figure 27 and Figure 28.

Figure 26. Lander Key Destinations and Proposed Wayfinding Signage Locations

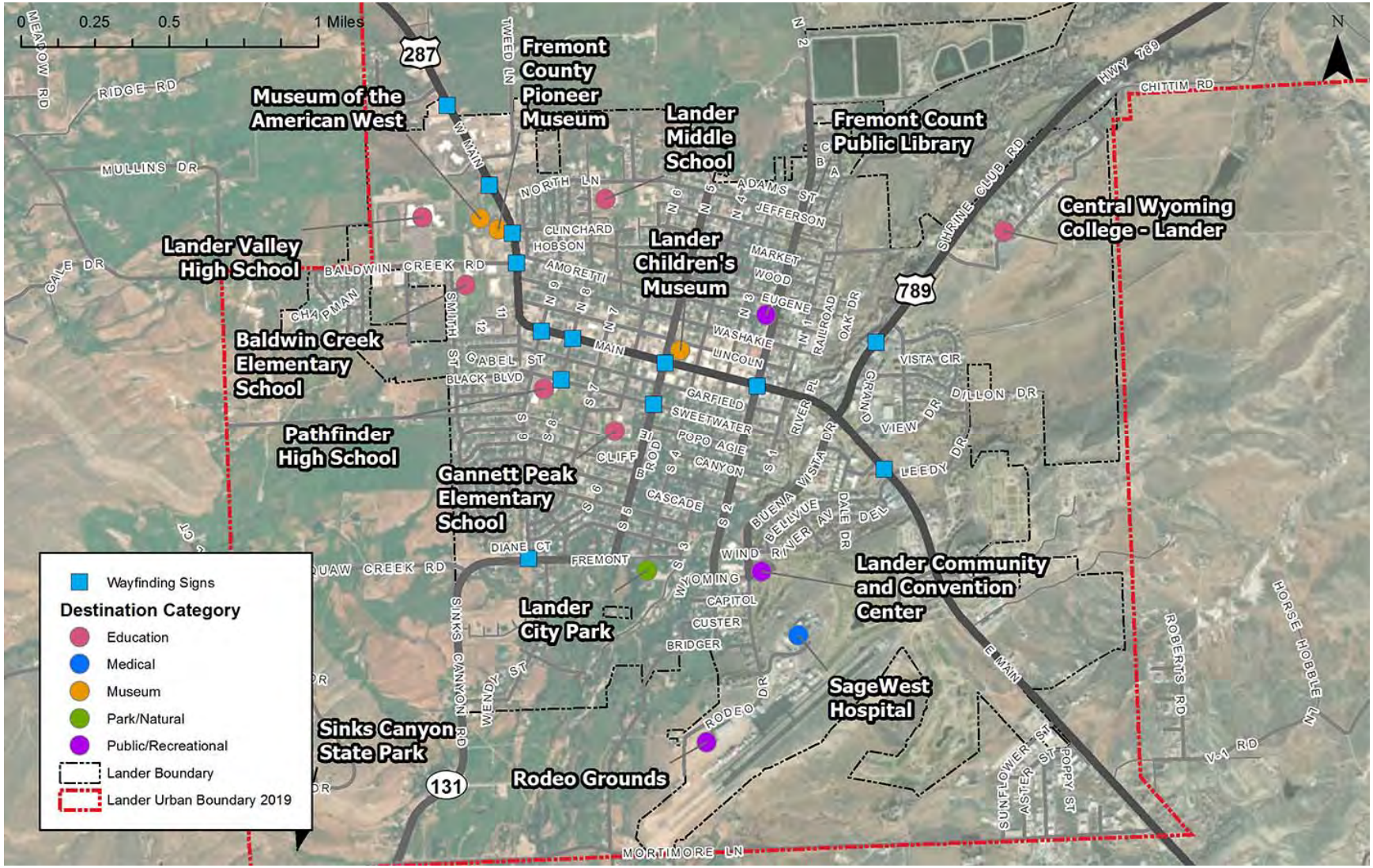
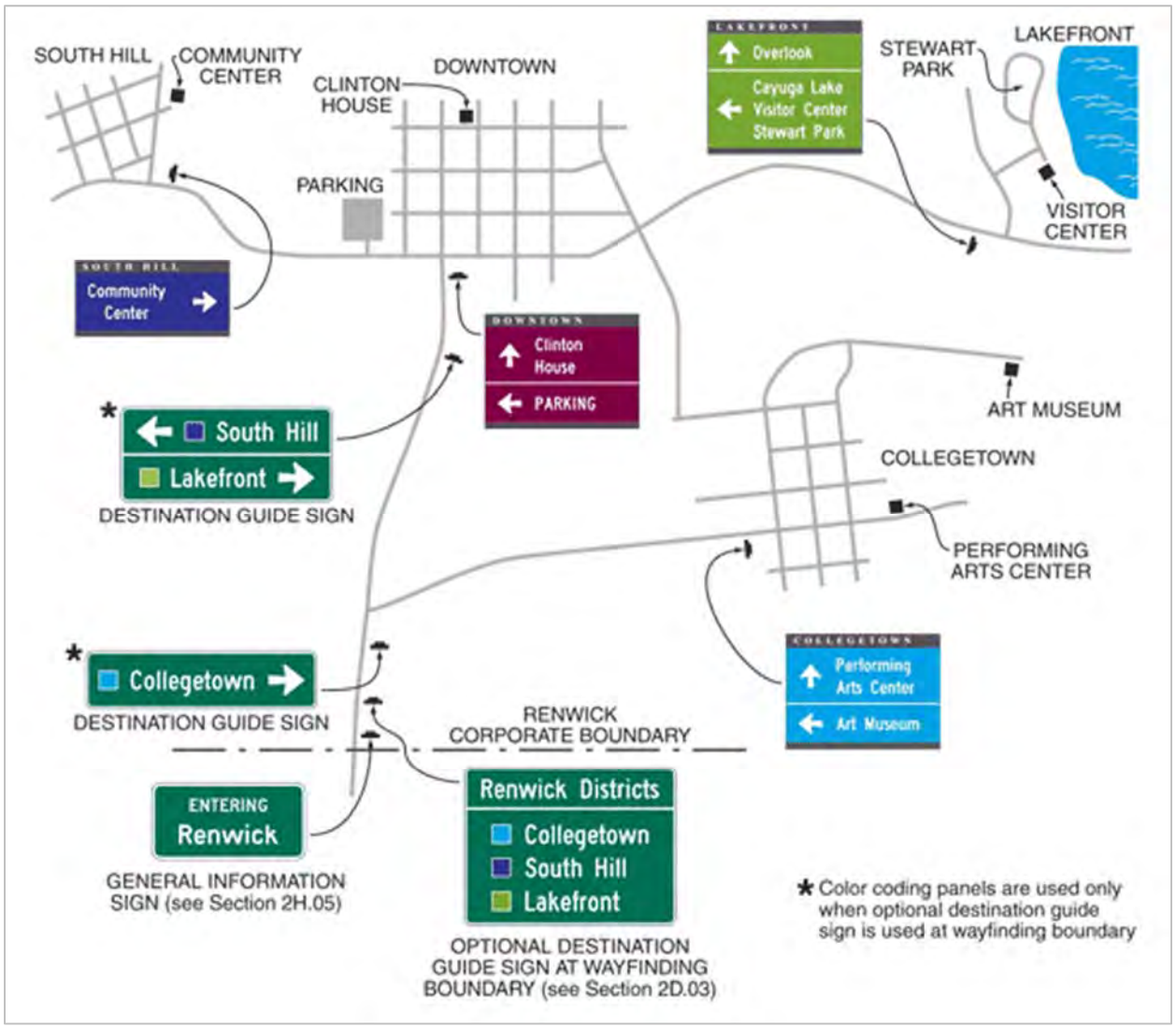
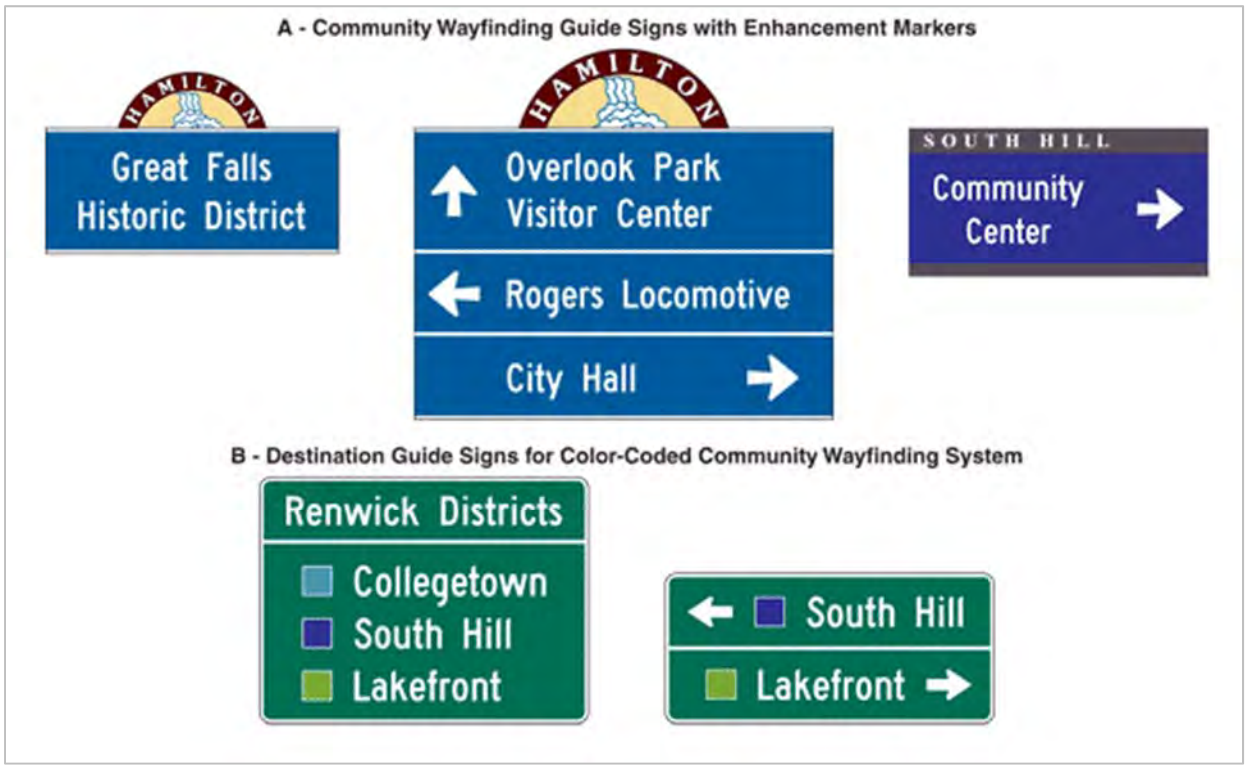


Figure 27. Example Community Wayfinding Sign Placement



Source: FHWA Manual on Uniform Traffic Control Devices

Figure 28. Example Color-Coded Wayfinding Signs



Source: FHWA Manual on Uniform Traffic Control Devices

The proposed locations of the wayfinding signs (Figure 26) would assist visitors by first displaying the signs on the approaches to Lander, including US 287 northbound and southbound and US 789 southbound. These signs would be color-coded and would alert users to be on the lookout for additional wayfinding signs. Wayfinding signs would also be placed at key crossroads locations on Main Street including 2nd Street, 5th Street, 8th Street, and 9th Street. These would direct users to the destinations along common, high-capacity routes. Additional wayfinding signs would be placed at key turn locations where additional turns are required to arrive at a destination.

Wayfinding signs intended for motorists and bicycles would be mast-mounted in visible locations. Per guidance from the MUTCD, wayfinding signs are considered supplemental and should be given lower priority compared to regulatory and warning signs. To improve the wayfinding experience for pedestrians, the mast-mounted signs could be supplemented by wayfinding kiosks (Photo 5). These kiosks should be placed in locations with high volumes of pedestrian traffic, such as the four locations on Main Street.

Photo 5. Pedestrian Wayfinding Kiosk Examples

9. Future Roadway Connections

As Lander has continued to grow and develop over the past few decades, tentative plans have been made to accommodate this growth through the proposed implementation of arterial roadways outside or adjacent to the current city boundary. The locations of the proposed roadway network expansion are shown in Figure 29. The proposed network consists of six new arterial roadways labeled A through F and a handful of Collector roadways designed to connect the proposed network to the existing transportation system. The primary goals in implementing this proposed network are:

- **Alleviate congestion** on the existing network. In particular, many of the through trips currently using Main Street could use one the proposed arterials to bypass downtown Lander, reducing traffic volumes through downtown and encouraging a safer transportation system for pedestrian and bicycle users.
- **Promote and support development** outside of Lander's currently developed areas. Future residential and commercial developments outside the current Lander boundary will need direct connections to Lander's transportation system.

The proposed network was created in preparation for continued growth of the city in a scenario where additional housing and commercial developments would be required to accommodate this growth. However, since peaking with a population of 7,870 in 1980, the population of Lander has remained relatively stable. Additionally, the expanded Arterial network runs counter to the stated 2012 Lander Master Plan goals of encouraging infill development and creating a

street system that knits together communities without forming barriers. A public comment relating to alignment “A” was received that discussed the 2012 Master Plan and how these future connections could run counter to the goals of the Master Plan, by creating barriers.

These future connections were originally identified in the 1979 Transportation Plan for Lander. The future connections were carried on in the 2012 Master Plan. However, in the 40 years since that plan was written, none of these future connections have been implemented. It is unclear that a “beltway” system is needed.

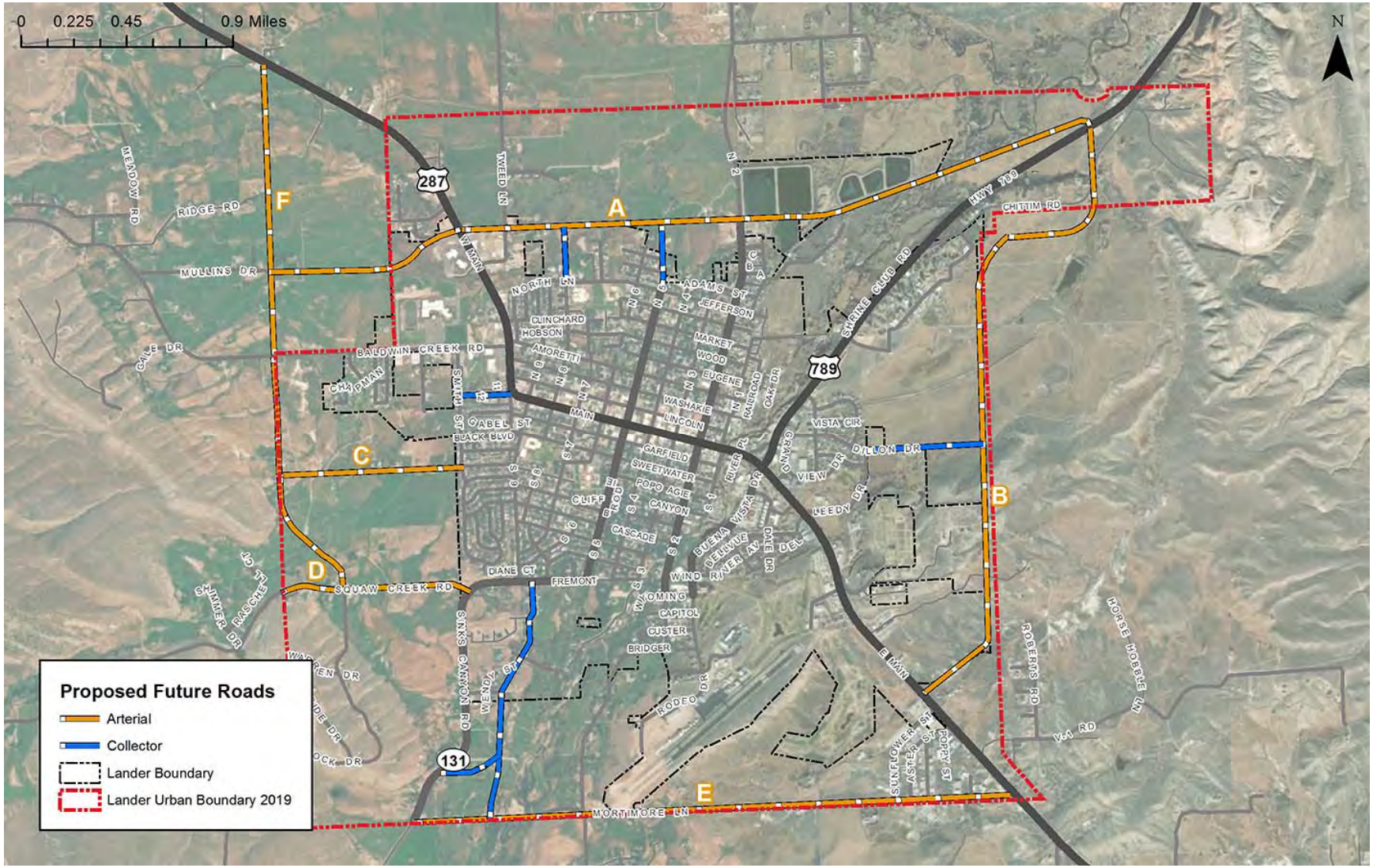
These connections may become needed for local connectivity if these areas develop in the future. Bypasses are often very difficult to justify from an environmental need standpoint, without some specific driving factor, or “purpose and need”. The alignment “A” future connection was planned because there is existing right-of-way owned by the City on either side of 2nd Street (in the form of utility easement and old railroad easement). However, this alignment also crosses several wetlands and creek crossings and may not be ideal from a development standpoint.

For these reasons, it is recommended that the proposed future arterial network be implemented where developments are proposed that cannot be accommodated through infill development and which are addressing city growth. These future connections are good perserve as general ideas and placeholders in these general locations in case of future development, so that Lander and Fremont County can help direct how future development occurs so that future roadways provide local connectivity.

However, the specific locations for the alignment of these future connections should not be limited to what is shown in the Master Plan and in Figure 29. If future growth accelerates and corridor alignments are requried, it is recommended that individual corridor studies for these connections be completed that identify alternatives.

Additionally, the proposed 5-lane cross sections identified in the 2012 Master Plan should be sized based on the need. Roadways with an ADT less than 10,000 vehicle per day function very well as two-lane roads. Center turn lanes, auxiliary deceleration right turn lanes, and additional travel lanes should be justified through data with proper traffic analysis and only used if actual Level of Service issues are identified.

Figure 29. Proposed Arterial and Collector Network



Appendix A.
Public Comments

Appendix A: Public Comments

First Public Meeting

CITY OF LANDER
NOTICE OF PUBLIC INFORMATION MEETING / OPEN HOUSE
Safe Routes to Schools and Walkable, Bike-able Routes Study
And Lander Transportation Plan

Date: October 21st, 2019

Time: 6:00 PM – 7:30 PM

Place: Lander City Hall
Council Chambers
240 Lincoln Street
Lander, WY 82520

The City of Lander, the Wyoming Department of Transportation (WYDOT), and HDR Engineering will hold a public information meeting/open house to inform the public of two transportation related studies that are being conducted in the City of Lander. The first study is a non-motorized transportation study related to providing safe routes to schools and walkable, bike-able routes within the City of Lander. The second study is being completed to analyze the existing transportation network, identify and discuss future connections, determine locations where there are Level of Service issues, and provide the City of Lander with a current Transportation Planning Document.

The open house will be informal allowing for open discussion with the steering committee and design consultant. The purpose of the meeting is to inform the area residents why the studies are being conducted, what the studies entail, and to gather feedback and public input about transportation related issues in the City of Lander.

A short presentation will take place at 6:10 PM at Lander City Hall located at 240 Lincoln Street in Lander. The City of Lander and consultant staff will be available with displays before and after the presentation to discuss the studies and answer your questions. During this time, you will also have the opportunity to present written comments.

For further information regarding this meeting contact Kyle Lehto, Project Engineer with HDR at (307)-228-6063.

PUBLISH: October 16, 2019

Safe Routes to Schools and Walkable, Bike-able Routes Study
And Lander Transportation Plan
Public Meeting/Open House
October 21, 2019
Lander City Hall

Sign-in Sheet (Please Print)

#	Name	Property/Business Name	Mailing Address	Phone #
1	DANE Janelle Hahn		547 Washington ST Lander	
2	Thomas Pede	Gannett Peak Sports	155 Custer St Lander	
3	TREY WARREN	HOUSEHOLDER PROPERTIES	6 Northwoods Lander	
4	Debbie & John Larsen	Property	PO Box 1807, Lander	
5	Barbara Oakleaf	Properly	800 Vance Dr Lander	
6	ROBERT FAY		217 GARFIELD LDR	
7	ALAN CULVER		206 MARKET	
8	Jerry & Sandy Bath	202 Tweed Lane Sweetwater Wellness	628 main St	
9	Chris & Anna Hulme		336 Eugene St	
10	DAVE BARKER	FCSD #1	PO Box 436	

Safe Routes to Schools and Walkable, Bike-able Routes Study
And Lander Transportation Plan
Public Meeting/Open House
October 21, 2019
Lander City Hall

Sign-in Sheet (Please Print)

#	Name	Property/Business Name	Mailing Address	Phone #
11	Michael Ismirle		POB 725 82520	
12	Jagoe Warren	Community Bhavashala Space	6 Northwoods	349-1160
13	Charlie Wilson	Caprine Investments	550 main st	330-4635
14	Lee Wilson	" "	"	349-0945
15	Nyssa Whitford	The Bike Mill	109 Main	703 517-9779
16	Don Reynolds		809 Vanced	330-7482
17	Kent Simon		Po Box 684	335-6954
18	Gary Wilmot		7 Timberline Trl	349-8708
19	W. Webster	Riverview Lane	763 Washakie St	330-7383
20	Adam Keifenheim	Lander Cycling Club	1085 McDougall Dr.	612-636-5860

Safe Routes to Schools and Walkable, Bike-able Routes Study
And Lander Transportation Plan
Public Meeting/Open House
October 21, 2019
Lander City Hall

Sign-in Sheet (Please Print)

#	Name	Property/Business Name	Mailing Address	Phone #
21	Mike Dicken	Jurassic Classic Mtn Bike festival	PO Box 1433 Lander	479.890.1289
22	Justin Hunting	citizen 824½ Main St	7	540.560512
23	Callie Domek	Public citizen 824½ Main St. Lander →		307.349.0978
24	Saundra Andersvn	Lander Pathways Grp	PO BOX 119 Hudson	307-714-5757
25	Patrick Merrenbink	460 Washakie Public Citizen	460 Washakie	307-349-6875
26	Bailey Brennan (Schreiber)	→	1527 N. 2nd St	307-709-5643
27	KATE MCKAY		455 Wind River Ave	349-3685
28	Sandy Wilson		205 River Pl	320-7165
29	Kevin Wilson Molly Herber	Nurse FC Library board	926 Hobson St.	407 873 1003
30	Joe Kenney	Fremont Broadcasting	1530 Main	332-5683

Safe Routes to Schools and Walkable, Bike-able Routes Study And Lander Transportation Plan

Public Meeting/Open House

October 21, 2019
Lander City Hall

Sign-in Sheet (Please Print)

#	Name	Property/Business Name	Mailing Address	Phone #
31	~~Molly Harper~~	~~926 Hoo~~		
32	Steve Baumann	Planning	2140 Squaw Creek Rd	349-2900
33	Kara Colovich		489 S. 2nd St	307.349.4772
34	Kurt Imhoff		" "	509.205.2298
35	Dave Dufek			
36	Mike Quinn			
37	Margie Jareas		532 S 8th Lander	
38	Sara Felix	Parks & Rec. Dir.		
39	Michelle Escudero		801 S. 3rd Street, Lander, WY	P: 307-332-7248 C: 301-219-1836
40				

Survey Card

Safe Routes to Schools and Walkable, Bike-able Routes Study
And Lander Transportation Plan
Public Meeting/Open House
October 21, 2019

Comments:

I'm A PROPERTY OWNER BORDERING THE NORTH LANDER BYPASS PROPOSAL. THIS IS MY PRIMARY CONCERN AS IT WILL IMPACT ME. IS THERE CONSIDERATION TO BRING THE BYPASS TO IN FROM MILFORD ON N 2nd, THEN CONNECT FROM THE SEWER PONDS TOWARDS THE RIVERTON HWY.

Name: W. Webster Email: wwebsterwy@[illegible].com

Address: WASHAKIE ST & RIVERVIEW L. Phone: 330-7289

Your comments will be considered as the project proceeds in design, please return by November 15, 2019. Comments can also be e-mailed to: kyle.lehto@hdrinc.com.

Survey Card

Safe Routes to Schools and Walkable, Bike-able Routes Study
And Lander Transportation Plan
Public Meeting/Open House
October 21, 2019

Comments:

Thank you for holding this open house, and continuing to address our safety-transpo needs. My primary hope is that the town and county work towards developing bicycle paths that can help move recreational bicycle, walking and jogging off busy roads. I would like to see the Baldwin/Squaw Cr. loop developed as a path route. I think a significant 2° gain of this would be attracting tourism and complimenting our excellent mountain biking trails.

Name: Charles Wilson Email: cwilson@wyoming.com

Address: 62 Ridge Rd/550 Mainst Phone: 307-330-4635

Your comments will be considered as the project proceeds in design, please return by November 15, 2019. Comments can also be e-mailed to: kyle.lehto@hdrinc.com.

Lehto, Kyle

From: Bailey Schreiber <bailey.schreiber@gmail.com>
Sent: Monday, November 18, 2019 8:59 AM
To: Lehto, Kyle
Subject: Transportation Plan Comments
Attachments: Lander Transportation Plan Comment Letter Brennan_Jones_Marshall.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning, Kyle,

Please find attached a comment letter on the Lander Transportation Plan signed by me and my husband, Bill and Lisa Jones and Chance and Karlee Marshall. If you have any questions or would like to discuss further, please let me know. Thank you!

Best,
Bailey

November 18, 2019

Re: Lander Transportation Plan Revision - Comments

Dear Mr. Lehto,

Thank you for the opportunity to provide comments on the Safe Routes to Schools and Walkable, Bike-able Routes Study and Lander Transportation Plan. This letter specifically addresses the existing Lander Master Plan 2012 (the "Lander Plan") proposal to develop an arterial road north of Lander, referred to in the Lander Plan and here as the "North Lander Arterial."

The Lander Plan proposes to expand the city's network of arterial roads in an effort to "alleviate congestion on current arterials" and "allow for a safer multi-modal transportation network by pulling high speed high volume traffic away from residential centers."[1] An additional purpose of the arterial roads would be to "allow for through traffic to reach state and county arterials without using Main Street."[2]

The North Lander Arterial is one proposed arterial that would run from the intersection of Ridge Road or Mullins Drive and Baldwin Creek, across Main Street, to the existing Industrial Park Road, across the Middle Popo Agie River and to Highway 789.[3] The North Lander Arterial is expected to have a 120 foot right-of-way.[4]

For the reasons described below, we ask that the City of Lander reconsider the North Lander Arterial in its transportation plan revisions.

I. The North Lander Arterial, as currently proposed, is inconsistent with the existing Lander Plan and needs of the City of Lander.

When it comes to future land use, the Lander Plan values development that provides adequate housing and open spaces, maintains connections between neighborhoods and destinations, provides safe routes for drivers, pedestrians and cyclists and promotes a vibrant downtown. The proposed North Lander Arterial does not further these objectives.

[1] Lander Plan at page 18.
[2] Id.
[3] Id.
[4] Id.

A. North Lander Arterial is inconsistent with zoning and growth scenarios when considered in light of the Lander Plan's goals and objectives.

Of the three growth scenarios presented in the Lander plan, two contemplate development north of Lander and just north of the proposed North Lander Arterial--Area 10 in the reproductions below. Under Scenario 2, an additional 79 units would be developed to house 197 people. Under Scenario 3, Region 10 would accommodate 105 new units and 263 people. These two scenarios contemplate significant residential development.

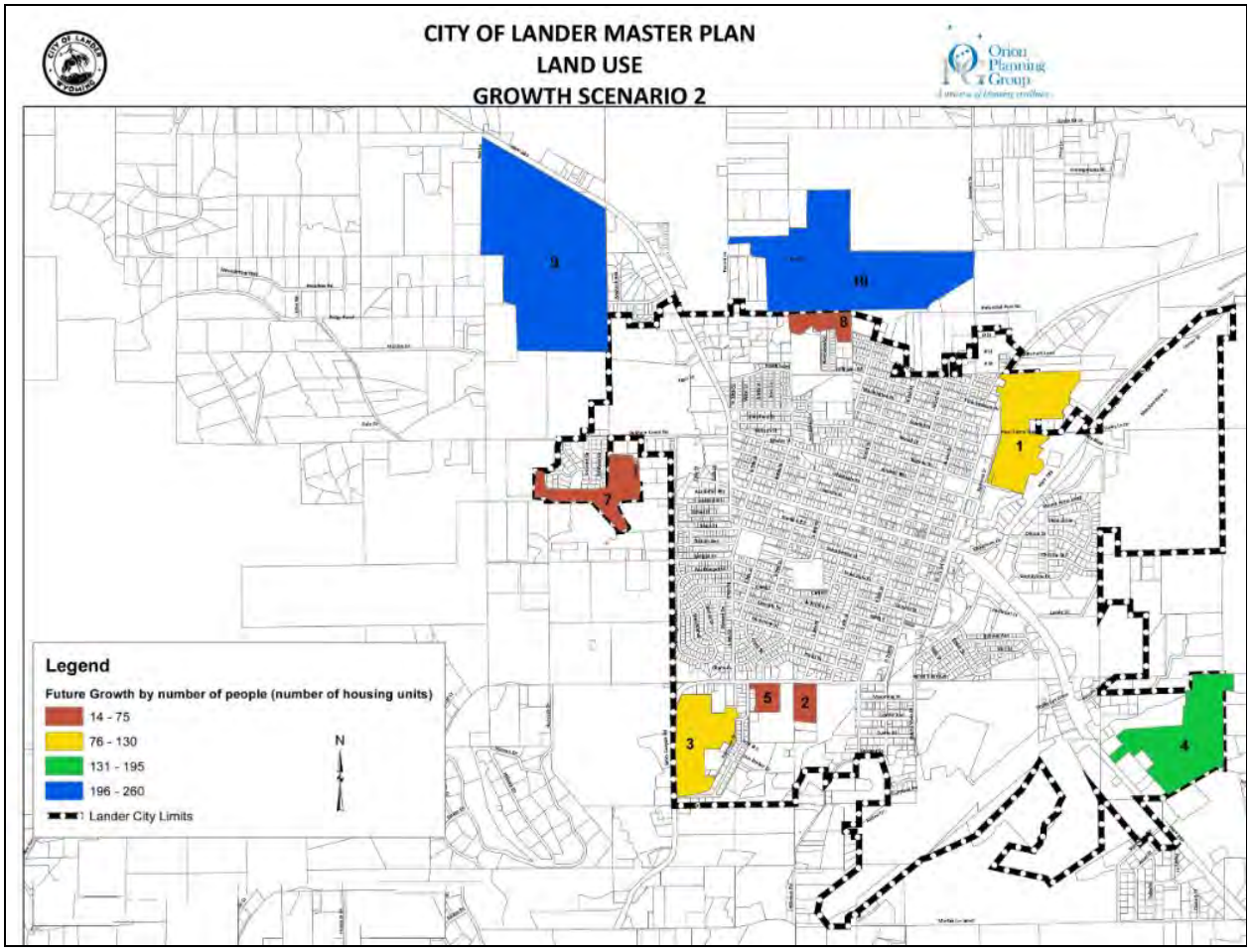
If this kind of development does occur, the last thing the City of Lander should do is separate it from the rest of the community. A large arterial road would do just that. The North Lander Arterial--a 120 foot-wide, four-lane road--would bisect Lander, dividing any new residential development from the rest of town.

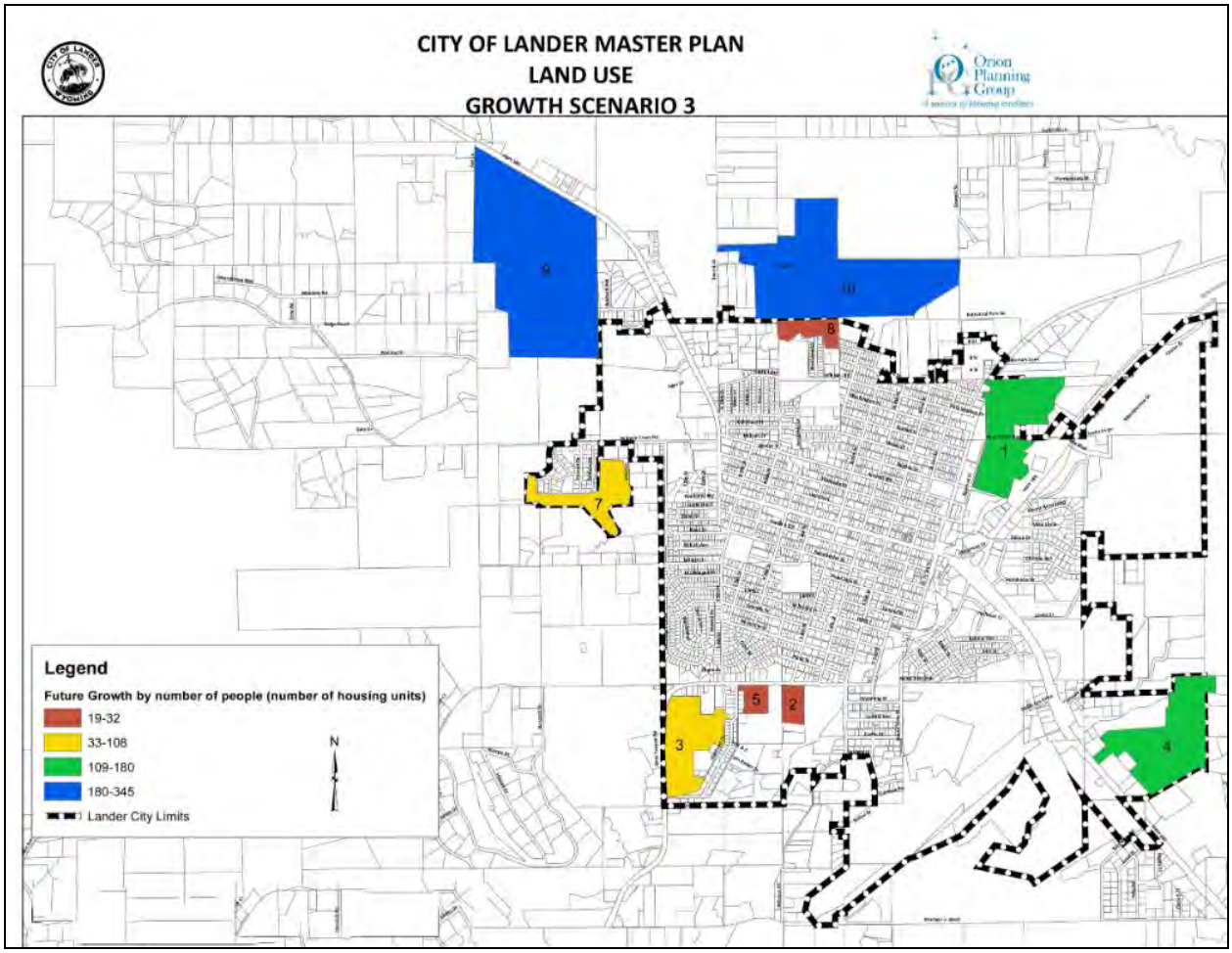
This is contrary to the Lander Plan's objectives. Indeed, the Lander Plan itself provides that, as the transportation system expands:

> the access and circulation system should accommodate the safe, efficient, and convenient movement of vehicles, bicycles, and pedestrians throughout new development, and provide ample opportunities for linking adjacent neighborhoods, properties, and land uses. Neighborhood streets systems should knit separate developments together, rather than forming barriers between them.[5]

The North Lander Arterial would separate, rather than connect, Lander. Crossing a busy, wide street would be difficult and dangerous for pedestrians and cyclists. The traffic and noise associated with such a road would create a physical and perceived barrier. This is contrary to the Lander Plan as it exists. It does not make sense to zone this area for residential use and then build a giant road.

[5] Id. at 54.


CITY OF LANDER MASTER PLAN
LAND USE
GROWTH SCENARIO 2
Orion Planning Group
9
10
8
1
7
5
2
3
4
Legend
Future Growth by number of people (number of housing units)
14 - 75
76 - 130
131 - 195
196 - 260
Lander City Limits
N



B. The North Lander Arterial does not support the Lander Plan's objective of increasing citizen and visitor activity downtown.

The Lander Plan envisions the city's downtown area--"the heart of Lander"--as a vibrant and lively destination that will contribute to Lander's sense of community and a healthy economy, and will attract visitors as a destination and for those passing through. Providing a way for residents and tourists to avoid downtown by using an alternate route does not support these objectives.

It is, of course, necessary to ensure public safety on Main Street, and to provide an alternative route around town for certain traffic--especially large truck traffic. However, this can be done without drawing all drivers away from downtown. The Lander Plan already contemplates ways of doing so. Public safety downtown can be improved by shortening the distances pedestrians have to get across Main Street, improving line of sight, studying pedestrian crossings and controlling access from Main Street. Traffic can

be more appropriately directed through the use of a wayfinding system to guide citizens and visitors downtown, signage directing truck traffic to use an alternate route.

The Lander Plan provides that the "transportation system should be used as a tool to promote tourism and local attractions."[6] The North Lander Arterial would not accomplish this goal. The City of Lander should consider an alternative arterial road that would meet the needs of the city more effectively.

II. The Lander North Arterial should be considered as a collector or local street and only when surrounding development makes it necessary.

There may come a day when a road connecting Second Street and Main Street north of Lander becomes necessary. However, as the Lander Plan indicates, infrastructure concurrency--"making sure the infrastructure to support development is in place concurrent with development of property"--should be required whenever possible. Good land use planning also mandates the opposite--infrastructure should not be put in place unless development requires it.

Many of the landowners along the Lander North Arterial between Tweed Lane and Second Street, including us, have no intention of developing their properties for residential use. To the contrary, most of this land, including ours, is used for agricultural purposes and will continue to be used as such. We have no plans to subdivide and develop our properties. Without residential development, a northern east-west road is not necessary.

Of course, if this changes and residential development extends north into these areas, the more appropriate road in this area would be a collector or local street. Such a road would allow these new neighborhoods to be connected to older parts of Lander, encouraging and enabling movement while ensuring public safety.

[6] Id. at 55.

III. Closing

For these reasons, we encourage the City of Lander to reconsider the Lander North Arterial and whether it will achieve the objectives of the Lander Plan. We also urge you to consider our proposed alternative--the North Fork Arterial--and the benefits such a route would have for Lander, its residents and its future.

Sincerely,

/s/ Pat and Bailey Brennan

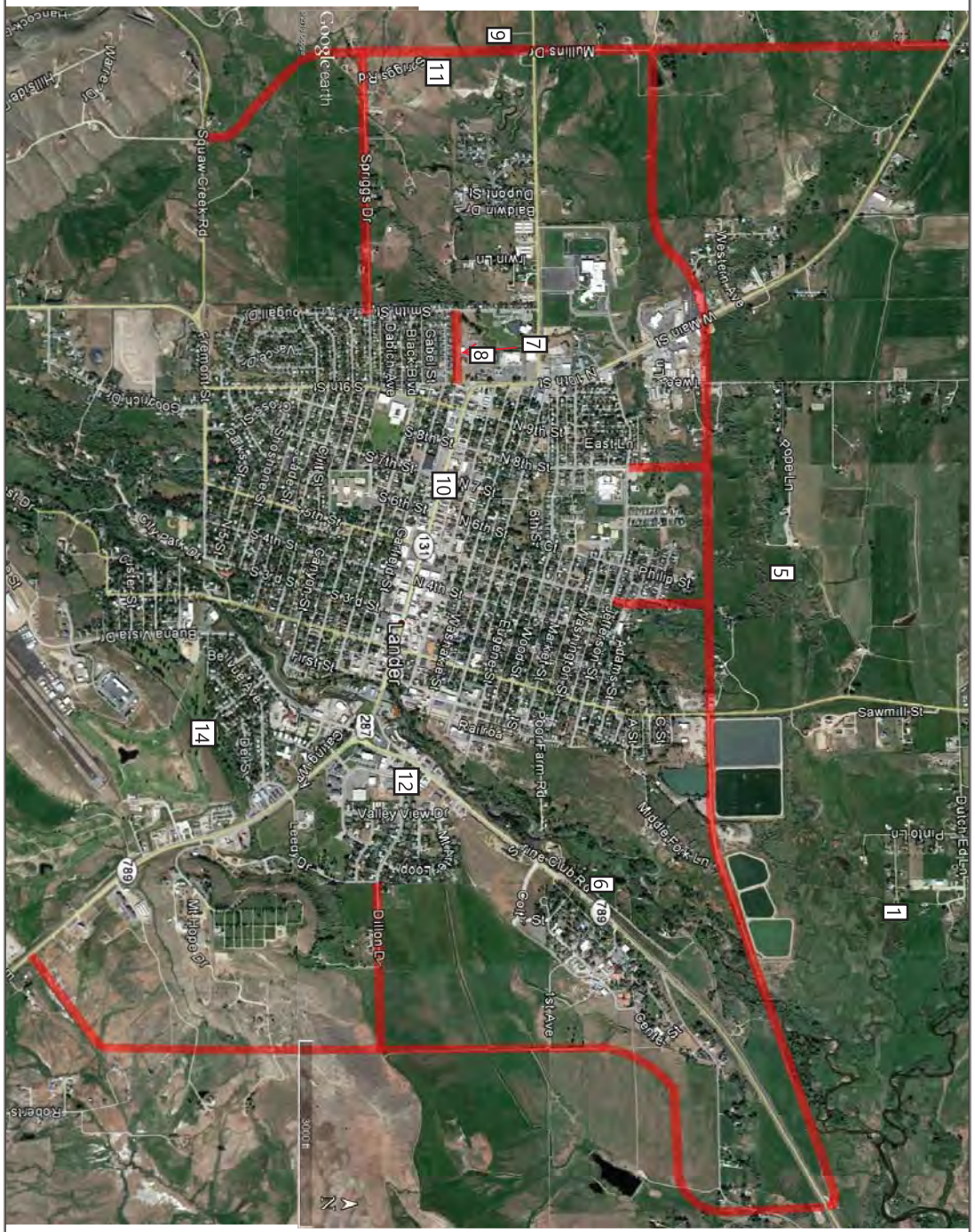
/s/ Bill and Lisa Jones

/s/ Chance and Karlee Marshall

HDR

HDR ENGINEERING INC.
325 Main Street PO Box 457
Lander, WY 82717-0457

LANDER TRANSPORTATION STUDY
FUTURE ROAD CONNECTIONS
IDENTIFIED IN PAST STUDIES



HDR ENGINEERING INC.
325 Main Street PO Box 457
Lander, WY 82717-0457

2 LANDER TRANSPORTATION STUDY
3 FUTURE ROAD CONNECTIONS
4 IDENTIFIED IN PAST STUDIES

Summary of Comments on Layout1

Page: [1] Layout1

Number: 1 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:39:56 AM
Detached walking/bike paths along any new roadways.

Second this.

Number: 2 Author: AutoCAD SHX Text Date: Indeterminate
LANDER TRANSPORTATION STUDY

Number: 3 Author: AutoCAD SHX Text Date: Indeterminate
FUTURE ROAD CONNECTIONS

Number: 4 Author: AutoCAD SHX Text Date: Indeterminate
IDENTIFIED IN PAST STUDIES

Number: 5 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:45:01 AM
Would be psyched to get big trucks passing through off of main.

Number: 6 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:40:31 AM
All new development required/incentivized to build sidewalks and bike paths.

Number: 7 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:43:55 AM
DONE!

Number: 8 Author: RWELLS Subject: Line Date: 10/22/2019 11:44:20 AM

Number: 9 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:45:22 AM
Good Idea

Number: 10 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:43:40 AM
Let's continue thinking of ways to SLOW DOWN traffic on Main (bypass!). Main could be MUCH friendlier to pedestrians and passing tourist dollars.

Number: 11 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:46:33 AM
Long, long, LONG view:
Work to get access/easement from current end of Spriggs to BLM land - would be AWESOME (even if it takes 50 years).

Number: 12 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:41:31 AM
Add pedestrian overpass 287/789 intersection and 789/CWC intersection.

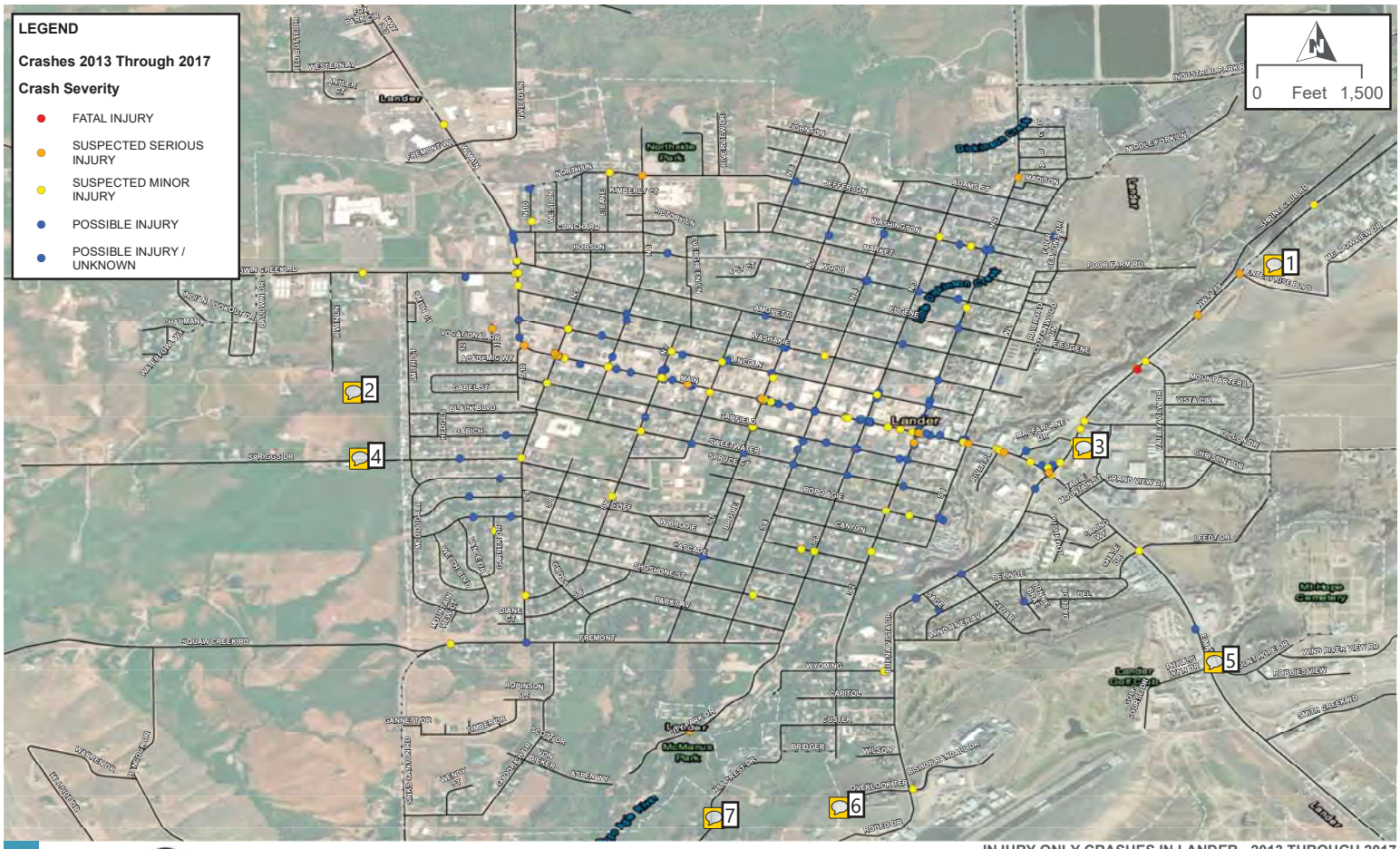
Number: 13 Author: AutoCAD SHX Text Date: Indeterminate
FILE LOCATION: 10/21/2019 8:57 AM Z:\PROJECT\2019\LANDER - SAFE SCHOOLS\Public Meeting Images.dwg 10/21/2019 8:57 AM Z:\PROJECT\2019\LANDER - SAFE SCHOOLS\Public Meeting Images.dwg Z:\PROJECT\2019\LANDER - SAFE SCHOOLS\Public Meeting Images.dwg Z:\PROJECT\2019\LANDER - SAFE SCHOOLS\Public Meeting Images.dwg

Number: 14 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:42:45 AM
Pedestrian malls, non-motorized only full blocks, whole length of streets.
Property values $$ (go) up.

INJURY ONLY CRASHES IN LANDER - 2013 THROUGH 2017

HDR

LANDER TRANSPORTATION MASTER PLAN



INJURY ONLY CRASHES IN LANDER - 2013 THROUGH 2017

Summary of Comments on Lander_Transportation_Plan_Injury_Only_Crashes_Draft1_2019_1010_with notes.pdf

Page: 1

Number: 1 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:17:36 AM
More current crash data since 2017, some things have been improved since then.

Number: 2 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:12:19 AM
This morning I was hit by a car while riding my bike to work. It happened at the Main/5th intersection. It resulted in a concussion, bruises, a broken bike, and cracked helmet. I had chosen to ride Main St. rather than the bike route on Lincoln because of better lighting. I hope whatever path is chosen can be very well-lit, and a very distinct walk/bike/non-motorized travel route so this does not happen to anyone else! THANK YOU for your work!!!

Number: 3 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:16:49 AM
Putting a 3'-high see-through fence (but preferably not chain link) would make this mini park area MUCH more appealing. It would keep small kids and balls away from traffic. Gates would make easy access area. The area next to USFS office, across from USPS.

Number: 4 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:13:20 AM
All I want is to be able to ride bikes w/my family downtown without fear of them getting hit by a car on the street or while walking around downtown.

Number: 5 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:14:05 AM
Cycling-Rinning Shoulder/Lane on Squaw Creek/Baldwin Creek .
High use 13 mile loop.

Number: 6 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:19:49 AM
Educate drivers better that cyclists are SUPPOSED to be on roads. And consider riders (under...age 12?) are suppose to ride on sidewalks.

Number: 7 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 11:18:26 AM
More sidewalks! Should be required for new builds. Would be great to have grant funding for citizens to install sidewalks at existing homes.

LEGEND

Pedestrian / Bicycle
2013 - 2017

Crash Severity

SUSPE

FINALIZE CURB! BULB OUT ON N 1ST @ CHURCH BUILDING

Use Lighting Masts to Build Shades for Sun in Morning

- More education/awareness about safe bike/ped routes for drivers and bikers/walkers
- Better signage for routes so vehicles know
- Education on safe biking/walking - pamphlets, posters, signs, public media, etc.
- Well-lit routes

Connecting the Main St. sections for bikes between 1st St. and HWY 789 is needed. The sidewalk is too narrow for pedestrians + bikes. The gutter is too narrow for a bike path and cars are moving very fast and get very close. The City tried delineating a bike lane →

Consider 1 way traffic w/ dedicated bike lane on Garfield + Lincoln

Main St. is too fast and not designed well for pedestrians. Crossings at all intersections is poorly thought out. WYDOT plans to double down on this system next year. Needs to be rethought

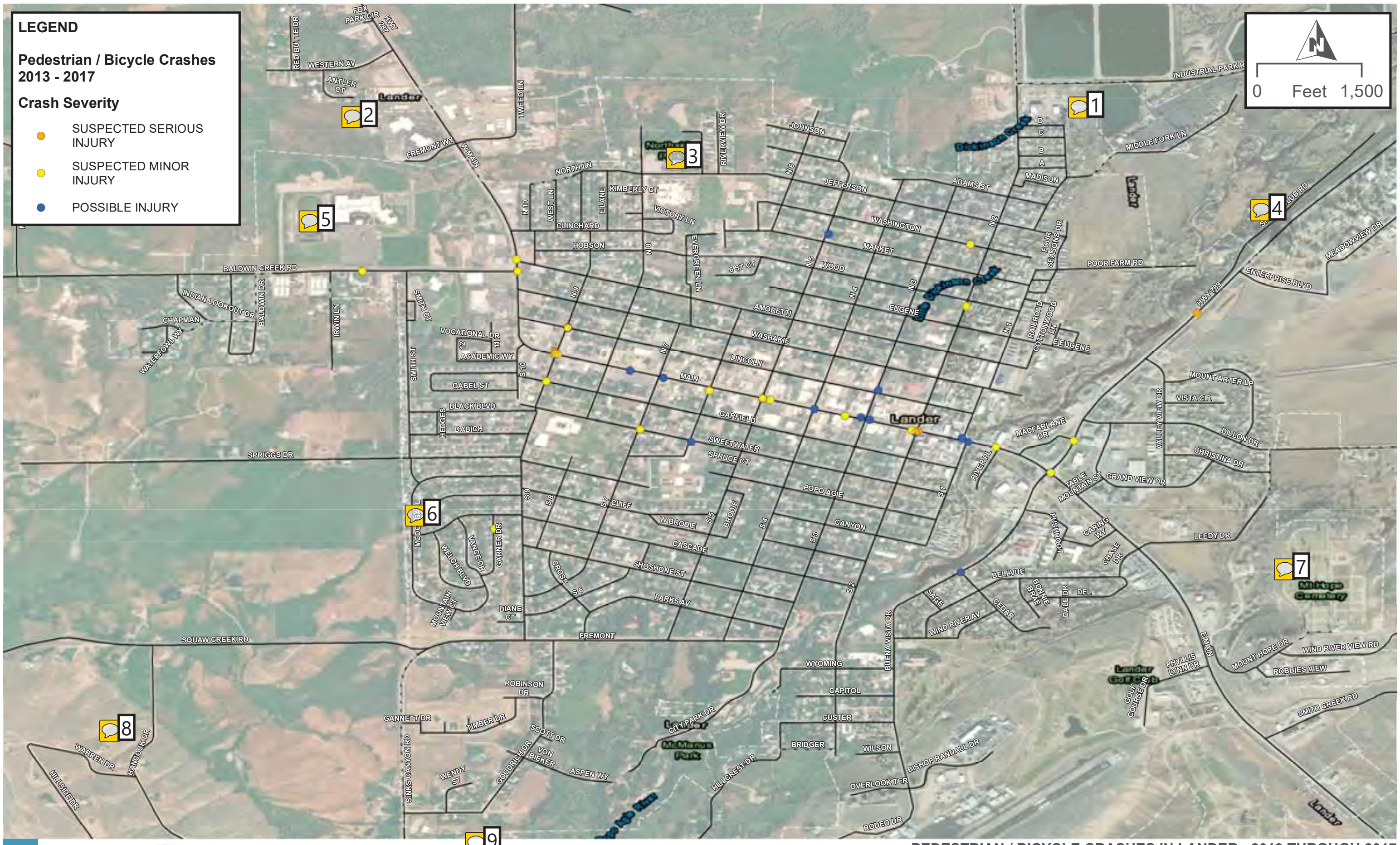
* Slow main street traffic
- medians + bumpouts
- pull traffic onto 1 way streets both South + North 1st

diagonal parking all the way down N 1st main to Washakie w/ bike lane.

PEDESTRIAN / BICYCLE CRASHES IN LANDER - 2013 THROUGH 2017

LANDER TRANSPORATION MASTER PLAN

PATH: Z:\GIS\2019\LANDER_TRANSPORTATION_PLAN\MAP_DOCS\LANDER_TRANSPORTATION_PLAN_PEDACYCLE_ONLY_CRASHES.MXD :: USER: USHELBY :: DATE: 10/10/2019



PEDESTRIAN / BICYCLE CRASHES IN LANDER - 2013 THROUGH 2017

Summary of Comments on Lander_Transportation_Plan_PedaCycle_Only_Crashes_Figure_Draft1_2019_1010_With notes.pdf

Page: 1

Number: 1 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 10:34:12 AM
-More education/awareness about safe bike/ped. routes for drivers AND bikers/walkers
-Better signage for routes so vehicles know
-Education on safe biking/walking - pamphlets, posters, signs, public media, etc.
-Well-lit routes.

> Author: RWELLS Subject: Sticky Note Date: 10/22/2019 10:34:12 AM
> -More education/awareness about safe bike/ped. routes for drivers AND bikers/walkers
> -Better signage for routes so vehicles know
> -Education on safe biking/walking - pamphlets, posters, signs, public media, etc.
> -Well-lit routes.

Number: 2 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 8:58:18 AM
Finalize curb! Bulb out on N. 1st at Chamber building.

Number: 3 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 8:59:22 AM
Use lighting masks (on Main St. stop lights) to build shades for sun in morning.

Number: 4 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 9:03:30 AM
Connecting the Main St. sections for bikes between 1st St. and Hwy 789 is needed. The sidewalk is too narrow for pedestrians and bikes. The gutter is too narrow for a bike path and cars are moving very fast and get VERY close. The City tried dedicating a bike lane but it just claimed gutter space

Options:
-Make sidewalk wider
-Color the bike lane green or another noticeable color to draw attention of cars

-Kara

Number: 5 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 8:56:58 AM
Change S. 1st to gather 1-way lane or close from Main to Garfield.

Number: 6 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 8:52:50 AM
Consider 1-way traffic w/dedicated bike land on Garfield and Lincoln.

Number: 7 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 8:54:02 AM
-Slow Main Street traffic.
-Medians and bump-outs.
-Pull traffic onto 1-way streets both South and North 1st.

Number: 8 Author: RWELLS Subject: Sticky Note Date: 12/24/2019 1:19:11 PM -07'00'
Main St. is too fast and not designed well for pedestrians. Crossings at all intersections is poorly thought out. WYDOT plans to double down on this system next year. Needs to be rethought.

Number: 9 Author: RWELLS Subject: Sticky Note Date: 10/22/2019 8:51:03 AM
Diagonal parking all the way down N 1st Main to Washakie w/ bike lane.

LEGEND

- City of Lander
- Exsisting Greenway
- Proposed Greenway

Proposed Roads

- Arterial
- Collector

Road Type

- CO GRAVEL
- CO PAVED
- MUNICIPAL
- PRIVATE
- ST HWY
- US HWY

DATA SOURCE: City of Lander

0 Miles 0.5

Desire for Bicycle Infrastructure

- Bicycle infrastructure desired to improve the following popular routes:
  - Loop route along North 2nd St, Lower North Fork Rd, Tweed Ln, and US 287
  - Squaw Creek/Baldwin Creek
  - Loop route along Hillcrest, Mortimore, and Sinks Canyon

Lander Middle School

- See SRTS Issues Map
- Offset intersection hazards

Potential Truck Bypass Routes

- Consider the potneital for Lincoln St, Garfield St, and 5th St to function as truck bypass routes and the impact this would have on shared use

General Transportation Issues

- Existing transportation corridors should be maintained and preserved
- All pavement surfaces require continual maintenance for pothole repair, debris removal, replacement of damaged pavement markings, and other safety items
- Expansions to the transportation network should accommodate movement of all users: personal vehicles, trucks, bicycles, and pedestrians
- Neighborhood street systems should knit together communities rather than forming barriers

Main St and Baldwin Creek Rd

- Difficult pedestrian crossings
- Quick pedestrian signal timing if ped button is not pushed
- Consider on-demand signal timing?

8th / Main St

- Does lack of signal cause vehicle/ped/bike issues?

General Bicycle/Pedestrian Issues

A majority of students in Fremont County School District 1 are dropped off by parents, drive themselves, or ride the bus. The City and School District are encouraging students to walk or bike, but face the following obstacles.

- The current pathways system lacks connectivity due to discontinuous pathway easements/sidewalks and limited dedicated bicycle lanes
- The current pathways system does not reach many neighborhoods
- Missing or insufficient bicycle signage
- Missing or misplaced parking restrictions
- Line of sight hazards, specifially at intersections
- Many sidewalks/pathways missing or in disrepair
- Need to ADA-compliance pedestrian ramps
- Inadequate traffic signal timing for walk phase

2nd / Main St

- Evaluate crash rates and turning movements to identify potential deficiencies

Baldwin Creek Rd / Smith St

- Evaluate potential congestion issues

1st / Main St

- Perceived as especially dangerous for cyclists due to high volumes, high speeds, and offset design
- Lack of signal increases danger for pedestrian crossings
- Potential location for HAWK pedestrian signal

Lander Valley High School

- See SRTS Issues Map

Baldwin Creek Elementary

- See SRTS Issues Map
- Front parking lot congestion
- Vehicle backing hazards

Area Transit Service

- Wind River Transportation Authority (WRTA) provides round trip service to stops in Riverton with three stops in Lander (three pickup/drop-off times AM and PM)
- Lander Senior Bus operates as scheduling demand response service for the general public, providing service up to 5 miles outside City of Lander public use

9th St / Sweetwater St / Black Blvd

- 5-legged intersection with offset configuration
- Poor visibility
- Safety issues for both pedestrians and motorists

Main Street / Hwys 287/789

- High volumes of auto and truck traffic
- Noted as especially dangerous for pedestrians

Pathfinder High School

- See SRTS Issues Map

Additional Bridges/River Crossings

- The curent bridge on Main may have issues during a 100-year flood event
- City is considering potential costs and benefits of additional crossings

Main Street

- Primary route through downtown Lander
- Principal Arterial Corridor
- 8 signalized intersections managed by WyDOT
- Areas with high concentration of accesses (between 9th St and Baldwin Creek Rd) cause congestion and safety issues
- Multiple blind intersections, line of sight issues, and congestion-related hazards

Gannett Peak Elementary

- See SRTS Issues Map

Bicyle Issues on Main Street

- Dangerous for bicycle travel due to high volumes and speeds, parked vehicles opening doors into bike lane, and oversize vehicle parking
- City Code prohibits use of bikes, scooters, and skateboard within the 100 though 900 block of Main St, forcing these modes onto the highway between parked cars and adjacent travel lane
- Existing shared bicycle routes have been developed on parallel streets (Lincoln St and Garfield St)
- Wide right-of-way to can make crossing difficult for some users
- Limited signs and guides for bicyclists

Access to Sinks Canyon Rd

- Both 5th St and 9th St can be used to access Fremont St/Sinks Canyon Rd
- City should evaluate potential of improving one or both access routes

2012 Proposed Arterial Roadways

Under the 2012 Lander Master Plan, multiple new roads and extensions/expansions of existing roads were proposed in order to achieve the following:

- Relieve perceived congestion and improve safety on Main St by providing alternate routes
- Relieve congestion at specific intersections such as Main Street and Hwys 287/789

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

TRANSPORTATION ISSUES MAP

Appendix A: Public Comments

Second Public Meeting

Lander Transportation Plan

Public Meeting

February 19, 2020

Lander City Hall

Sign-in Sheet (Please Print)

#	Name	Property/Business Name	Mailing Address	Phone #
1	Marilyne Middleton	Fremont Broadcasting	1530 Main Street, Lander	3325683
2	LINDA MILLER	MILLER RANCH	1781 N 2nd ST	615-218-3979
3	Hyle Miller	Miller Ranch	1781 N. 2nd St.	307-332-2673
4	Tecia Hubble	Daycare	8160 N Lane	332-4641
5	RAY CHARLES		PO Box 2629 Lander	Z-2650
6	DAN Hahn	LANDER Council		330-6041
7	STEVE BAUMANN		2140 SQUAW CREEK	349-2900
8	Christine Davey		865 North Lane	349-2551
9	Jamie Simonson	Sinks Canyon State Park	3077 Sinks Canyon RD	332-1621
10	Bailey Brennan		1527 N. 2ND ST	709-5643

Lander Transportation Plan

Public Meeting

February 19, 2020
Lander City Hall

Sign-in Sheet (Please Print)

#	Name	Property/Business Name	Mailing Address	Phone #
21	Imogene Massey	945 Spriggs Dr.	PO Box 1594 Lander	307 349-2056
22	Tom Massey	945 Spriggs Dr	Po Box 1594 Lander	349-2055
23	Joe Kenney	KOVE KDCY	1530 Main	332-5283
24	JACK T HOFFMAN	WYDOT		568-3400
25	DON REYNOLDS	LANDER	809 VANCE DR	330-7482
26				
27				
28				
29				
30				

CITY OF LANDER
NOTICE OF PUBLIC INFORMATION MEETING / OPEN HOUSE
Lander Transportation Plan

Date: February 19th, 2020

Time: 6:00 PM – 7:30 PM

Place: Lander City Hall
Council Chambers
240 Lincoln Street
Lander, WY 82520

The City of Lander, the Wyoming Department of Transportation (WYDOT), and HDR Engineering will hold their second public information meeting/open house to allow for public discussion of the Lander Transportation Plan, which is being completed to analyze the existing transportation network, identify and discuss future connections, determine locations where there are Level of Service issues, and provide the City of Lander with a current Transportation Planning Document. The open house will be informal allowing for open discussion with the steering committee and design consultant. The purpose of the meeting is to discuss the Study Report with area residents, review the study findings, and to gather feedback and public input about the Study Report.

A presentation will take place at 6:10 PM at Lander City Hall located at 240 Lincoln Street in Lander. The City of Lander and consultant staff will be available with displays before and after the presentation to discuss the studies and answer your questions. During this time, you will also have the opportunity to present written comments.

For further information regarding this meeting contact Kyle Lehto, Project Engineer with HDR at (307)-228-6063.

PUBLISH: February 16, 2020

Lehto, Kyle

From: Rajean Strube Fossen <rsfossen@landerwyoming.org>
Sent: Thursday, March 19, 2020 1:58 PM
To: Lehto, Kyle
Cc: Lance Hopkin; Jackie Nelson
Subject: New comments on the Transportation and SRTS draft reports

Kyle, we had an urban systems meeting today. When will the reports be finalized?
Here are some report comments from our team.
This section is from the meeting notes.

1. Update Lander Transportation Plan - Lance and RaJean – The draft report recommends some changes to the Functional Classification Map. The consensus of the group was that the recommendation to upgrade Buena Vista South of Wyoming to a Minor Arterial is a good one. The recommendation to upgrade 7th Street between Washakie Street and 9th is in question by the City. Should it be upgraded when the Safe Routes to School plan is removing this section from their recommended routes? There was discussion held on the City's recommendation for adding 3rd Street South of Main up to a Collector. Jackie and Juli commented on items in the draft report itself. Jackie is concerned that adding a stop sign(s) on 9th will push traffic up to Spriggs and into the neighborhoods. She is also concerned about increasing traffic on 5th as it is a major school pedestrian route to Gannett Peak. Juli noted that the boundary map for the transportation plan does not match the boundary map for the Functional Map system. It was brought up that it would be a good idea for all published documents to match. RaJean will forward these comments to the engineering firm so that they can be addressed in the final report. The publication date of the final report is unknown.

This section is from Jackie Nelson email.

So a few more comments -
1. There is a school zone at the junction of McDougall and Smith - are people aware of that school zone?
2. Is it worth mentioning that there is significant increase in traffic around downtown - due to Catholic College?

and just to further reflect upon the number of people coming down 9th street - include those going to Baldwin Creek, Pathfinder and the
High School - also with those people heading toward Ft. Washakie /Ethete for work both AM and PM.

All the best, RaJean

Appendix B.
Traffic Count and Forecast Data

Traffic Count and Forecast Data

Street	Description	Counter ID	2019 ADT	Forecast 2040
1ST STREET	NORTH OF MAIN STREET	50	951	2,200
1ST STREET	SOUTH OF MAIN STREET	60	622	980
2ND STREET	NORTH OF JEFFERSON STREET	190	2,638	3,045
2ND STREET	NORTH OF LINCOLN STREET	160	5,669	6,235
2ND STREET	NORTH OF MAIN STREET	155	6,463	7,345
2ND STREET	NORTH OF SEWAGE DISPOSAL PONDS	200	1,904	2,140
2ND STREET	NORTH OF WASHAKIE STREET	165	4,981	5,785
2ND STREET	SOUTH OF JEFFERSON STREET	185	3,212	3,715
2ND STREET	SOUTH OF MAIN STREET	150	3,395	4,680
2ND STREET	SOUTH OF POPO AGIE STREET	135	2,366	3,295
2ND STREET	SOUTH OF WOOD STREET	175	3,865	4,510
2ND STREET	SOUTH OF WYOMING STREET	120	273	1,290
3RD STREET	NORTH OF MAIN STREET	310	1,979	2,310
3RD STREET	NORTH OF SHOSHONE	933	1,636	1,615
3RD STREET	SOUTH OF MAIN STREET	305	1,631	2,300
4TH STREET	NORTH OF MAIN STREET	355	1,295	1,680
4TH STREET	SOUTH OF MAIN STREET	350	336	1,430
5TH STREET	NORTH OF LINCOLN STREET	450	2,209	2,695
5TH STREET	NORTH OF MAIN STREET	460	2,432	3,015
5TH STREET	NORTH OF WASHAKIE STREET	440	1,910	2,450
5TH STREET	SOUTH OF CASCADE STREET	510	1,439	1,780
5TH STREET	SOUTH OF GARFIELD STREET	480	2,007	2,985
5TH STREET	SOUTH OF JEFFERSON STREET	400	745	975
5TH STREET	SOUTH OF MAIN STREET	470	2,908	4,665
5TH STREET	SOUTH OF WOOD STREET	420	1,735	2,095
6TH STREET	SOUTH OF MAIN STREET	522	431	825
7TH STREET	SOUTH OF MAIN STREET	540	1,305	2,270
8TH STREET	NORTH OF AMORETTI STREET	580	704	1,165
8TH STREET	NORTH OF HOBSON STREET	585	827	1,310
9TH STREET	NORTH OF FREMONT STREET	630	1,963	2,480
9TH STREET	NORTH OF MAIN STREET	655	1,589	2,030
9TH STREET	NORTH OF WASHAKIE STREET	665	895	970
9TH STREET	SOUTH OF GARFIELD STREET	645	4,595	6,075
9TH STREET	SOUTH OF MAIN STREET	650	4,283	5,660
AMORETTI STREET	EAST OF 10TH STREET	720	446	750
AMORETTI STREET	EAST OF 9TH STREET	730	459	640
AMORETTI STREET	EAST OF U.S. 287	710	572	885
BALDWIN CREEK	WEST OF SMITH STREET	810	2,318	4,185

Traffic Count and Forecast Data

Street	Description	Counter ID	2019 ADT	Forecast 2040
BALDWIN CREEK	WEST OF SQUAW CREEK BRIDGE	800	2,679	4,525
BLACK BOULEVARD	EAST OF SMITH STREET	830	401	720
BLACK BOULEVARD	WEST OF 9TH STREET	840	693	1,040
BUENA VISTA DRIVE	NORTH OF CEDAR STREET	868	2,578	3,045
BUENA VISTA DRIVE	SOUTH OF U.S. 287-WYO 789	860	3,458	4,020
CASCADE STREET	EAST OF 3RD STREET	930	1,758	2,260
CASCADE STREET	EAST OF 4TH STREET	935	1,198	1,840
CASCADE STREET	EAST OF 5TH STREET	940	1,115	1,550
CUSTER STREET	EAST OF 2ND STREET	1010	399	585
DILLON DRIVE	EAST OF GRAND VIEW DRIVE	1025	557	860
DILLON DRIVE	EAST OF WYO 789	1020	1,751	2,290
FREMONT STREET	EAST OF 5TH STREET	1080	1,121	1,425
FREMONT STREET	EAST OF CARSON AVENUE/9TH STREET	1050	1,527	2,000
GARFIELD STREET	EAST OF 2ND STREET	1155	463	630
GARFIELD STREET	EAST OF 3RD STREET	1150	1,116	1,840
GARFIELD STREET	EAST OF 4TH STREET	1140	1,554	2,050
GARFIELD STREET	EAST OF 5TH STREET	1130	1,317	1,905
GARFIELD STREET	EAST OF 6TH STREET	1120	1,152	1,660
GRAND VIEW DRIVE	EAST OF TABLE MOUNTAIN STREET	1163	443	1,020
GRAND VIEW DRIVE	SOUTH OF DILLON DRIVE	1161	1,230	1,540
HILLCREST DRIVE	NORTH OF MORTIMER LANE	1168	394	540
JEFFERSON STREET	EAST OF 3RD STREET	1220	1,083	1,260
LINCOLN STREET	EAST OF 3RD STREET	1310	1,403	1,575
LINCOLN STREET	EAST OF 4TH STREET	1300	1,558	1,915
LINCOLN STREET	EAST OF 5TH STREET	1290	1,606	1,785
LINCOLN STREET	EAST OF 6TH STREET	1280	1,577	2,030
LINCOLN STREET	EAST OF 9TH STREET	1260	1,390	1,710
LINCOLN STREET	EAST OF W. U.S. 287	1250	1,029	1,275
MAIN STREET	EAST OF 1ST STREET	1331	19,230	22,945
MAIN STREET	EAST OF 2ND STREET	1336	18,280	22,495
MAIN STREET	EAST OF 3RD STREET	1341	16,208	19,875
MAIN STREET	EAST OF 4TH STREET	1346	15,810	19,495
MAIN STREET	EAST OF 5TH STREET	1351	15,578	19,550
MAIN STREET	EAST OF 6TH STREET	1356	14,824	18,315
MAIN STREET	EAST OF 9TH STREET	1371	13,797	16,735
MORTIMER LANE	EAST OF HILLCREST DRIVE	1445	337	440
SMITH STREET	NORTH OF BLACK BOULEVARD	1460	491	1,340
SMITH STREET	SOUTH OF SPRIGGS DRIVE	1451	321	560

Traffic Count and Forecast Data

Street	Description	Counter ID	2019 ADT	Forecast 2040
TABLE MOUNTAIN STREET	NORTH OF U.S. 287/WYO 789	1530	3,906	4,700
TWEED LANE	EAST OF U.S. 287	1540	1,142	1,010
U. S. 287	NORTH OF AMORETTI STREET	1585	8,703	11,200
U. S. 287	NORTH OF CLINCHARD STREET	1590	8,293	10,605
U. S. 287	NORTH OF TWEED LANE	1600	6,327	8,490
U. S. 287	NORTH OF WASHAKIE STREET	1571	11,624	14,830
U. S. 287/WYO 789	SOUTHEAST OF BUENA VISTA DRIVE	1675	12,010	12,915
U.S. 287	SOUTH OF TWEED LANE	1595	8,084	10,125
VALLEY VIEW DRIVE	EAST OF WYO 789	1710	325	570
VALLEY VIEW DRIVE	N OF GRANDVIEW DR	1714	289	520
VALLEY VIEW DRIVE	S OF DILLON	1713	197	530
WOOD STREET	EAST OF 3RD STREET	1760	451	580
WOOD STREET	EAST OF 8TH STREET	1720	535	830
WYO 131	NORTH OF MORTIMER LANE	1840	1,260	1,705
WYO 789	NORTH OF DILLON DRIVE	1855	9,100	11,245
WYOMING STREET	EAST OF 2ND STREET	1810	992	1,345

PM RECORDINGS		Smith Street (SB) North Approach				Baldwin Creek (WB) East Approach				Smith Street (NB) South Approach				Baldwin Creek (EB) West Approach				
Date	Start Time	L	T	R	SB Total	L	T	R	WB Total	L	T	R	NB Total	L	T	R	EB Total	Total
	3:00 PM	0	0	0	0	12	21	0	33	0	0	2	2	0	14	1	15	**50**
	car	-	-	-	0	10	20	-	30	0	-	2	2	-	14	1	15	47
	heavy	-	-	-	0	2	1	-	3	0	-	0	0	-	0	0	0	3
	3:15 PM	0	0	0	0	15	29	0	44	11	0	56	67	0	14	5	19	**130**
	car	-	-	-	0	15	26	-	41	11	-	55	66	-	12	5	17	124
	heavy	-	-	-	0	0	3	-	3	0	-	1	1	-	2	0	2	6
	3:30 PM	0	0	0	0	4	42	0	46	4	0	9	13	0	83	37	120	**179**
	car	-	-	-	0	4	38	-	42	4	-	7	11	-	81	37	118	171
	heavy	-	-	-	0	0	4	-	4	0	-	2	2	-	2	0	2	8
	3:45 PM	0	0	0	0	5	24	0	29	3	0	2	5	0	29	11	40	**74**
	car	-	-	-	0	5	24	-	29	3	-	2	5	-	28	10	38	72
	heavy	-	-	-	0	0	0	-	0	0	-	0	0	-	1	1	2	2
	Movement Total	0	0	0	0	36	116	0	152	18	0	69	87	0	140	54	194	433
	Movement Total Cars	0	0	0	0	34	108	0	142	18	0	66	84	0	135	53	188	414
	Movment Total Heavy	0	0	0	0	2	8	0	10	0	0	3	3	0	5	1	6	19
	% Heavy	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	6%	7%	#DIV/0!	7%	0%	#DIV/0!	4%	3%	#DIV/0!	4%	2%	3%	4%

PM PEAK HOUR
Time Period: 3:00 to 4:00 PM
Intersection % Heavy Vehicles: 4.4%
Total Volume Entering Vehicles: 433
PHF: 0.60

	EB	WB	NB
	194	152	87
	45%	35%	20%

PM Peak

		SB Right	SB Through	SB Left	SB U-Turn		
		0	0	0	0		
EB U-Turn	0					0	WB Right
EB Left	0					116	WB Through
EB Through	140					36	WB Left
EB Right	54					0	WB U-Turn
		0	18	0	69		
		NB U-Turn	NB Left	NB Through	NB Right		

PM Peak

		SB Right	SB Through	SB Left	SB U-Turn		
		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
EB U-Turn	0%					0%	WB Right
EB Left	0%					76%	WB Through
EB Through	72%					24%	WB Left
EB Right	28%					0%	WB U-Turn
		0%	21%	0%	79%		
		NB U-Turn	NB Left	NB Through	NB Right		

AM/PM RECORDINGS		Smith Street (SB) North Approach			Baldwin Creek (WB) East Approach			Smith Street (NB) South Approach			Baldwin Creek (EB) West Approach					
Date	Start Time	L	T	R	L	T	R	L	T	R	L	T	R	Total	Hourly Volume	PHF
12/17/2019	7:00 AM	0	0	0	2	11	0	5	0	4	0	17	1	**40**	575	
	car	-	-	-	2	11	0	5	-	4	-	17	1	40		
	heavy	-	-	-	-	0	0	0	-	0	-	0	-	0		
	7:15 AM	0	0	0	10	19	0	14	0	12	0	41	5	**101**	575	
	car	-	-	-	9	19	-	14	-	12	-	40	5	99		
	heavy	-	-	-	1	0	-	0	-	0	-	1	0	2		
	7:30 AM	0	0	0	18	40	0	27	0	38	0	51	10	**184**	575	
	car	-	-	-	18	37	-	24	-	38	-	51	8	176		
	heavy	-	-	-	0	3	-	3	-	0	-	0	2	8		
	7:45 AM	0	0	0	37	54	0	42	0	46	0	57	14	**250**	575	
	car	-	-	-	36	53	-	42	-	41	-	55	14	241		
	heavy	-	-	-	1	1	-	0	-	5	-	2	0	9		
	8:00 AM	0	0	0	16	26	0	12	0	37	0	28	10	**129**	664	**Peak Hour Identified: 7:15 to 8:15 PM**
	car	-	-	-	16	26	-	12	-	35	-	27	10	126		
	heavy	-	-	-	0	0	-	0	-	2	-	1	0	3		
	8:15 AM	0	0	0	5	13	0	0	0	6	0	19	2	**45**	608	
	car	-	-	-	5	13	-	0	-	6	-	19	2	45		
	heavy	-	-	-	0	0	-	0	-	0	-	0	0	0		
	8:30 AM	0	0	0	0	11	0	0	0	3	0	19	1	**34**	458	
	car	-	-	-	0	10	-	0	-	3	-	18	1	32		
	heavy	-	-	-	0	1	-	0	-	0	-	1	0	2		
	8:45 PM	0	0	0	3	7	0	1	0	4	0	12	0	**27**	235	
	car	-	-	-	2	6	-	1	-	4	-	12	0	25		
	heavy	-	-	-	1	1	-	0	-	0	-	0	0	2		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	**0**		
	car	-	-	-	-	-	-	-	-	-	-	-	-	0		
	heavy	-	-	-	-	-	-	-	-	-	-	-	-	0		
	2:00 PM	0	0	0	1	9	0	3	0	2	0	21	1	**37**	167	
	car	-	-	-	1	9	-	3	-	2	-	21	1	37		
	heavy	-	-	-	0	0	-	0	-	0	-	0	0	0		
	2:15 PM	0	0	0	1	16	0	1	0	3	0	9	0	**30**	167	
	car	-	-	-	1	16	-	1	-	3	-	9	0	30		
	heavy	-	-	-	0	0	-	0	-	0	-	0	0	0		
	2:30 PM	0	0	0	5	17	0	0	0	4	0	21	1	**48**	167	
	car	-	-	-	5	17	-	0	-	4	-	21	1	48		
	heavy	-	-	-	0	0	-	0	-	0	-	0	0	0		
	2:45 PM	0	0	0	6	17	0	2	0	8	0	16	3	**52**	167	
	car	-	-	-	5	17	-	2	-	8	-	16	3	51		
	heavy	-	-	-	1	0	-	0	-	0	-	0	0	1		
	3:00 PM	0	0	0	12	21	0	0	0	2	0	14	1	**50**	180	
	car	-	-	-	10	20	-	0	-	2	-	14	1	47		
	heavy	-	-	-	2	1	-	0	-	0	-	0	0	3		
	3:15 PM	0	0	0	15	29	0	11	0	56	0	14	5	**130**	280	
	car	-	-	-	15	26	-	11	-	55	-	12	5	124		
	heavy	-	-	-	0	3	-	0	-	1	-	2	0	6		
	3:30 PM	0	0	0	4	42	0	4	0	9	0	83	37	**179**	411	
	car	-	-	-	4	38	-	4	-	7	-	81	37	171		
	heavy	-	-	-	0	4	-	0	-	2	-	2	0	8		
	3:45 PM	0	0	0	5	24	0	3	0	2	0	29	11	**74**	433	**Peak Hour Identified: 3:00 to 4:00 PM**
	car	-	-	-	5	24	-	3	-	2	-	28	10	72		
	heavy	-	-	-	0	0	-	0	-	0	-	1	1	2		
	4:00 PM	0	0	0	4	16	0	3	0	1	0	17	1	**42**	425	
	car	-	-	-	4	16	-	3	-	1	-	16	1	41		
	heavy	-	-	-	0	0	-	0	-	0	-	1	0	1		
	4:15 PM	0	0	0	2	30	0	1	0	1	0	14	2	**50**	345	
	car	-	-	-	2	28	-	1	-	1	-	14	2	48		
	heavy	-	-	-	0	2	-	0	-	0	-	0	0	2		
	4:30 PM	0	0	0	4	20	0	6	0	3	0	17	2	**52**	218	
	car	-	-	-	4	20	-	6	-	3	-	17	2	52		
	heavy	-	-	-	0	0	-	0	-	0	-	0	0	0		
	4:45 PM	0	0	0	2	16	0	3	0	1	0	18	2	**42**	186	
	car	-	-	-	2	16	-	3	-	1	-	16	2	40		
	heavy	-	-	-	0	0	-	0	-	0	-	2	0	2		
	5:00 PM	0	0	0	3	29	0	4	0	3	0	12	1	**52**	196	
	car	-	-	-	3	29	-	4	-	3	-	12	1	52		
	heavy	-	-	-	0	0	-	0	-	0	-	0	0	0		
	5:15 PM	0	0	0	4	27	0	5	0	1	0	12	1	**50**	196	
	car	-	-	-	4	26	-	5	-	1	-	12	1	49		
	heavy	-	-	-	0	1	-	0	-	0	-	0	0	1		
	5:30 PM	0	0	0	4	17	0	2	0	2	0	9	0	**34**	178	
	car	-	-	-	4	17	-	2	-	2	-	8	0	33		
	heavy	-	-	-	0	0	-	0	-	0	-	1	0	1		
	5:45 PM	0	0	0	0	19	0	0	0	3	0	13	4	**39**	175	
	car	-	-	-	0	19	-	0	-	3	-	12	4	38		
	heavy	-	-	-	0	0	-	0	-	0	-	1	0	1		

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 7:00AM to 7:15AM

N/S Street Smith street

E/W Street Baldwin Creek

Date 12/17/19 Day

Weather COLD

Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

Tee intersection

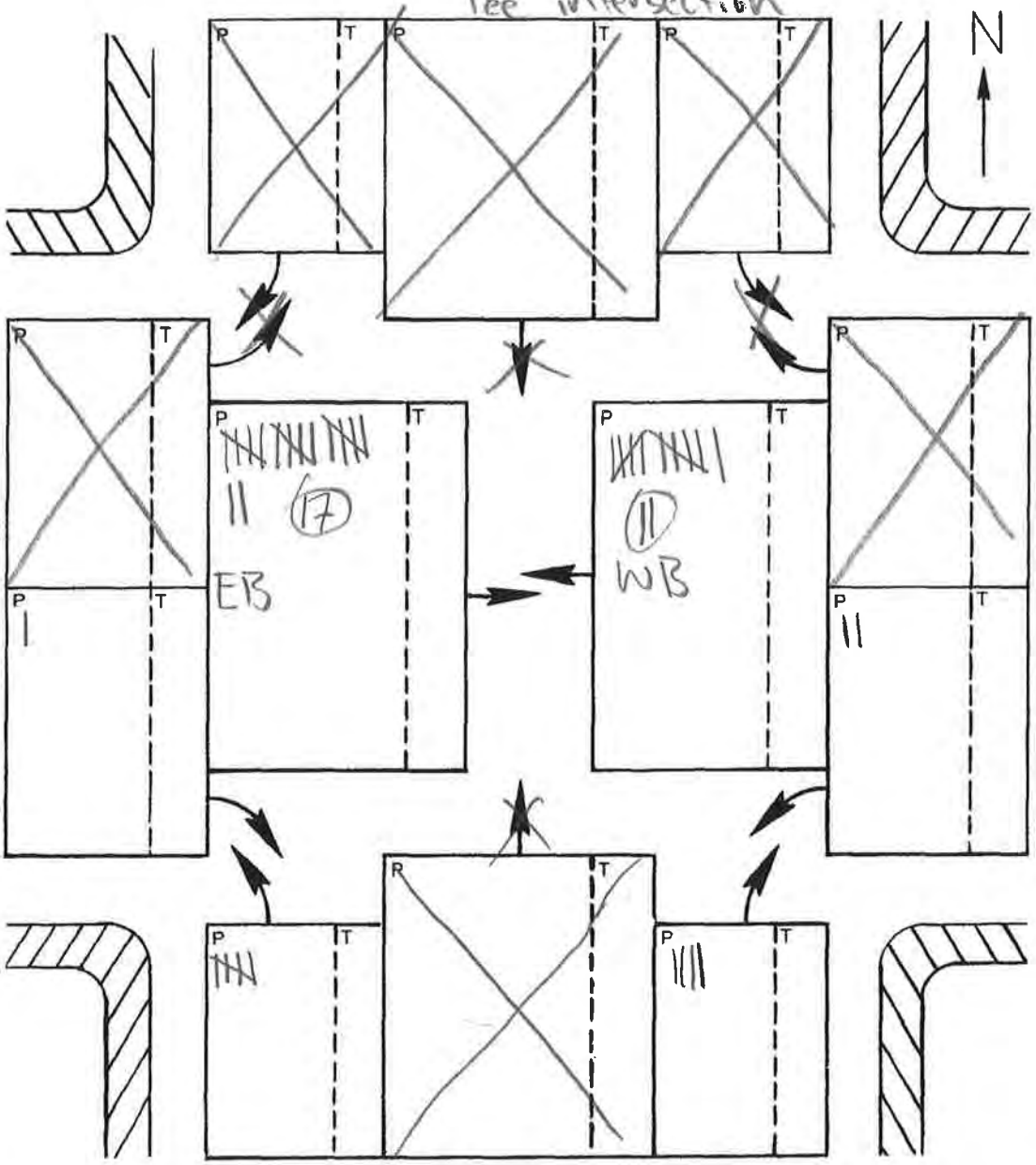


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 7:15 AM to 7:30 AM

N/S Street Smith Street
E/W Street Baldwin Creek

Date 12/17/19 Day
Weather Cold
Observer Kyle Lehts

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

Tee Intersection

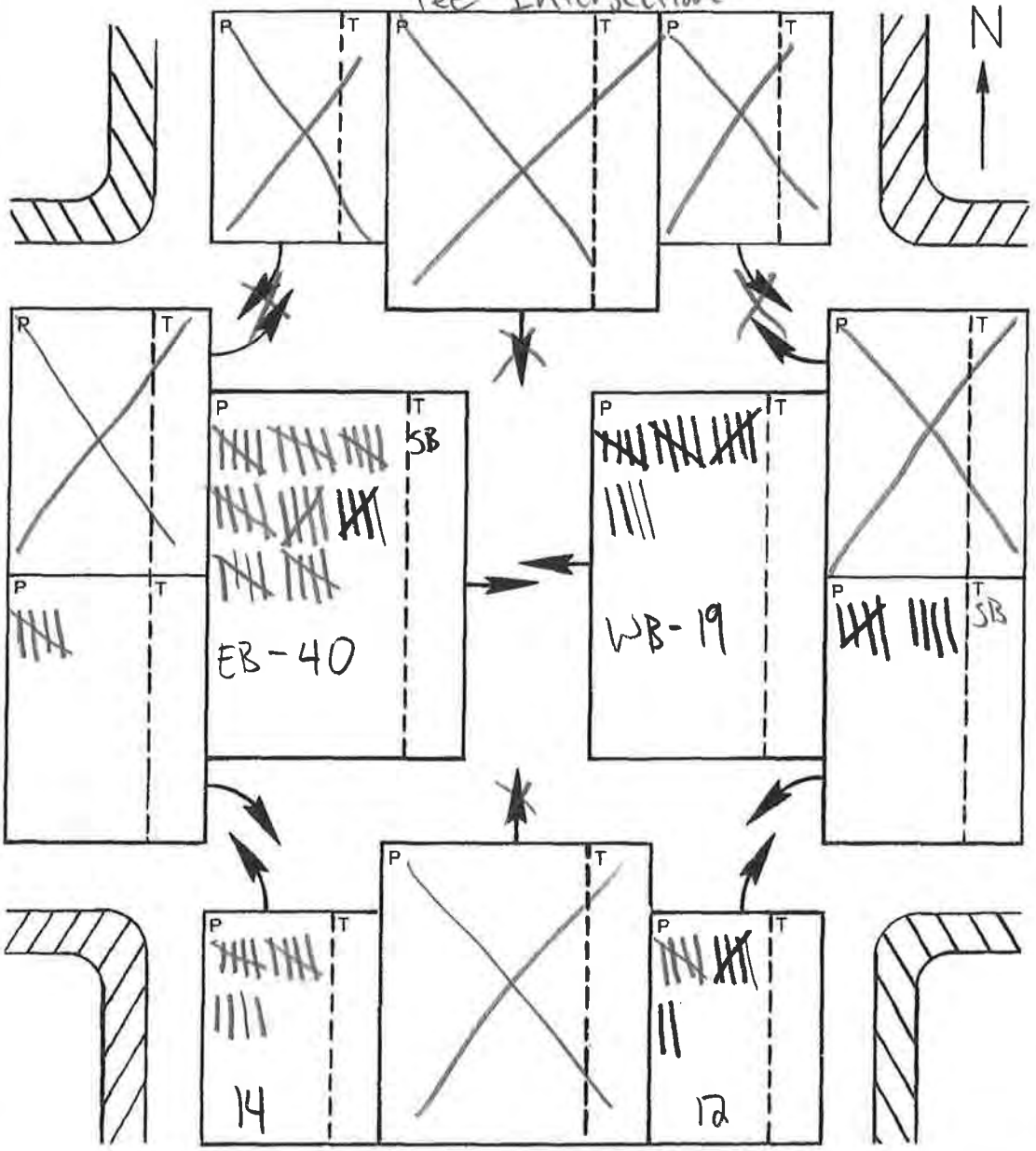


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 7:30AM to 7:45 AM

N/S Street Smith Street

E/W Street Baldwin Creek

Date 12/17/19 Day

Weather Cold

Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

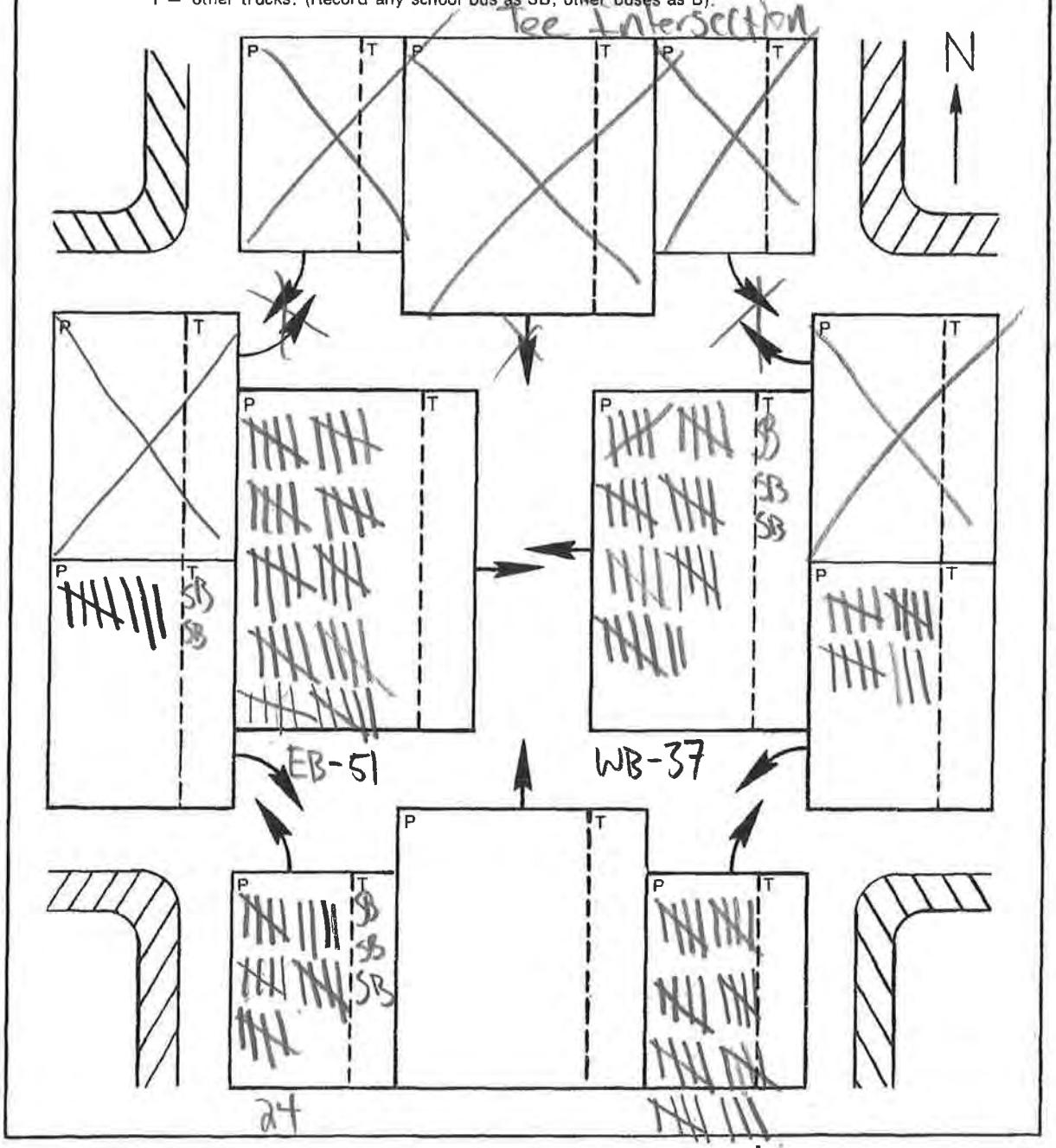


Figure G-3 Refer to Figure 2-1 on page 8. 38

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 7:45 AM to 8:00 AM

N/S Street Smith Street
E/W Street Baldwin Creek

Date 12/17/19 Day
Weather Cold
Observer Kyle LeMe

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

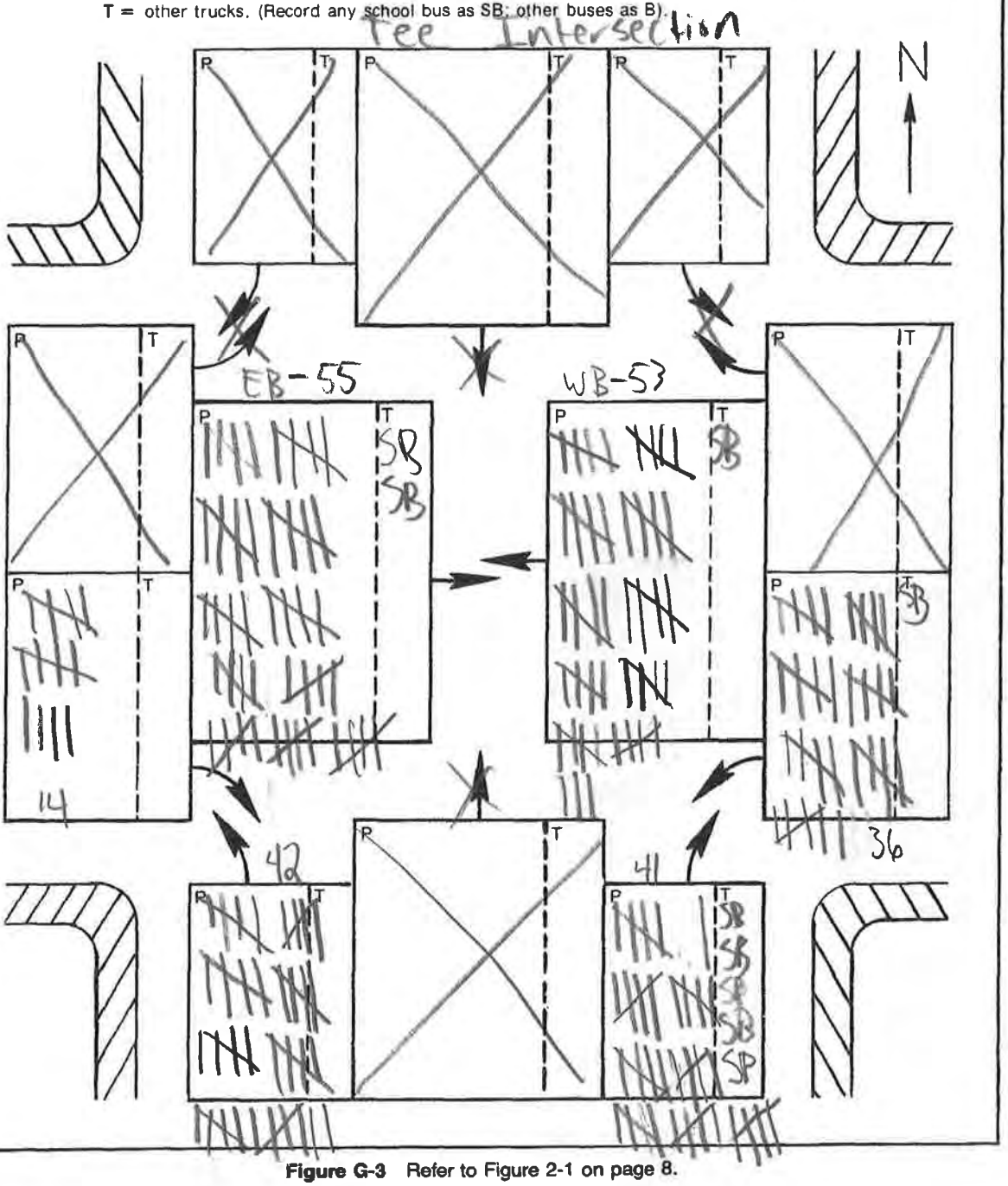


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 8:00 AM to 8:15 AM

N/S Street Smith Street

E/W Street Baldwin Creek

Date 12/17/19 Day

Weather Cold

Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

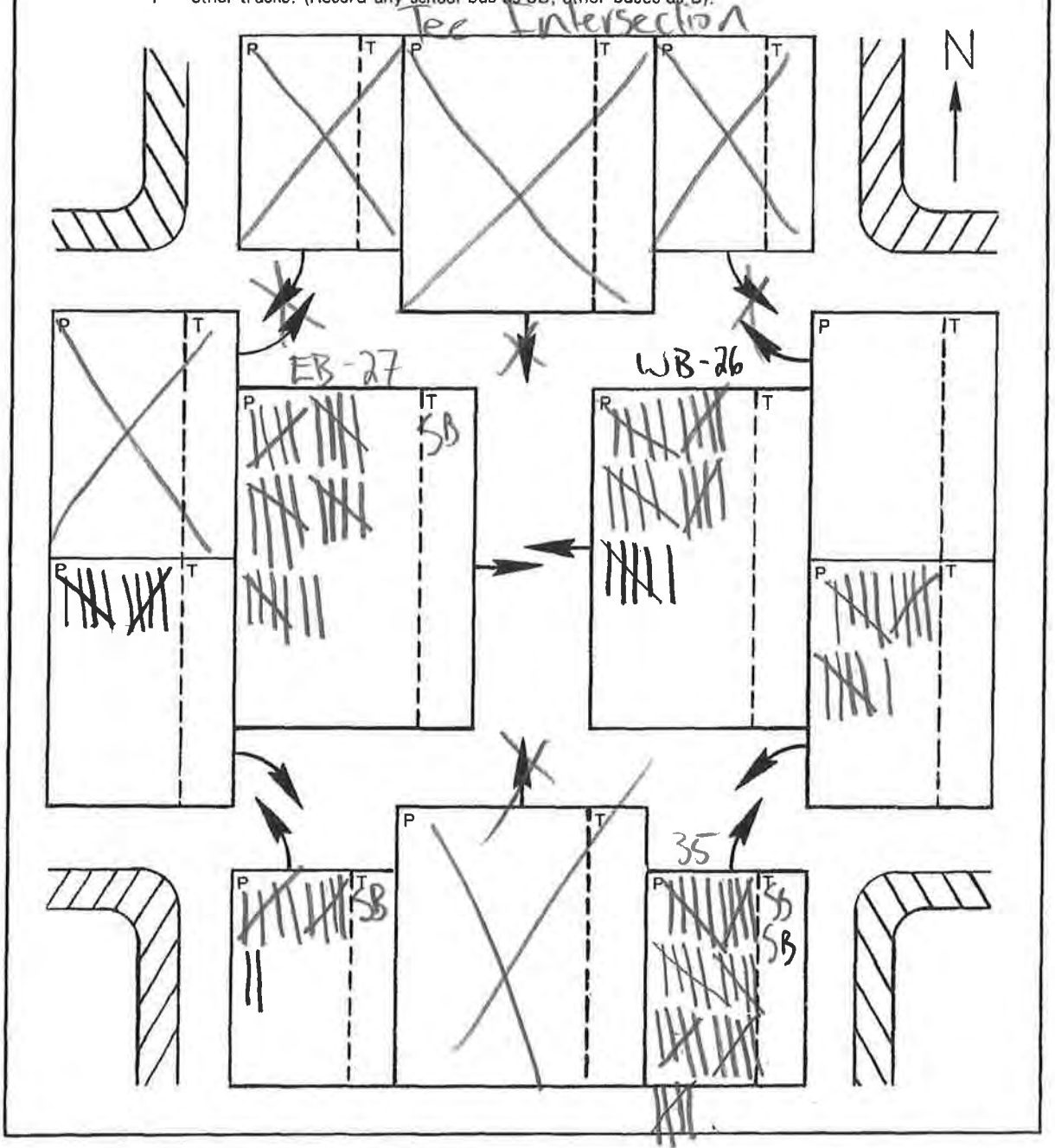


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 8:15 AM to 8:30 AM

N/S Street Smith Street
E/W Street Baldwin Creek

Date 12/17/19 Day
Weather Cold
Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

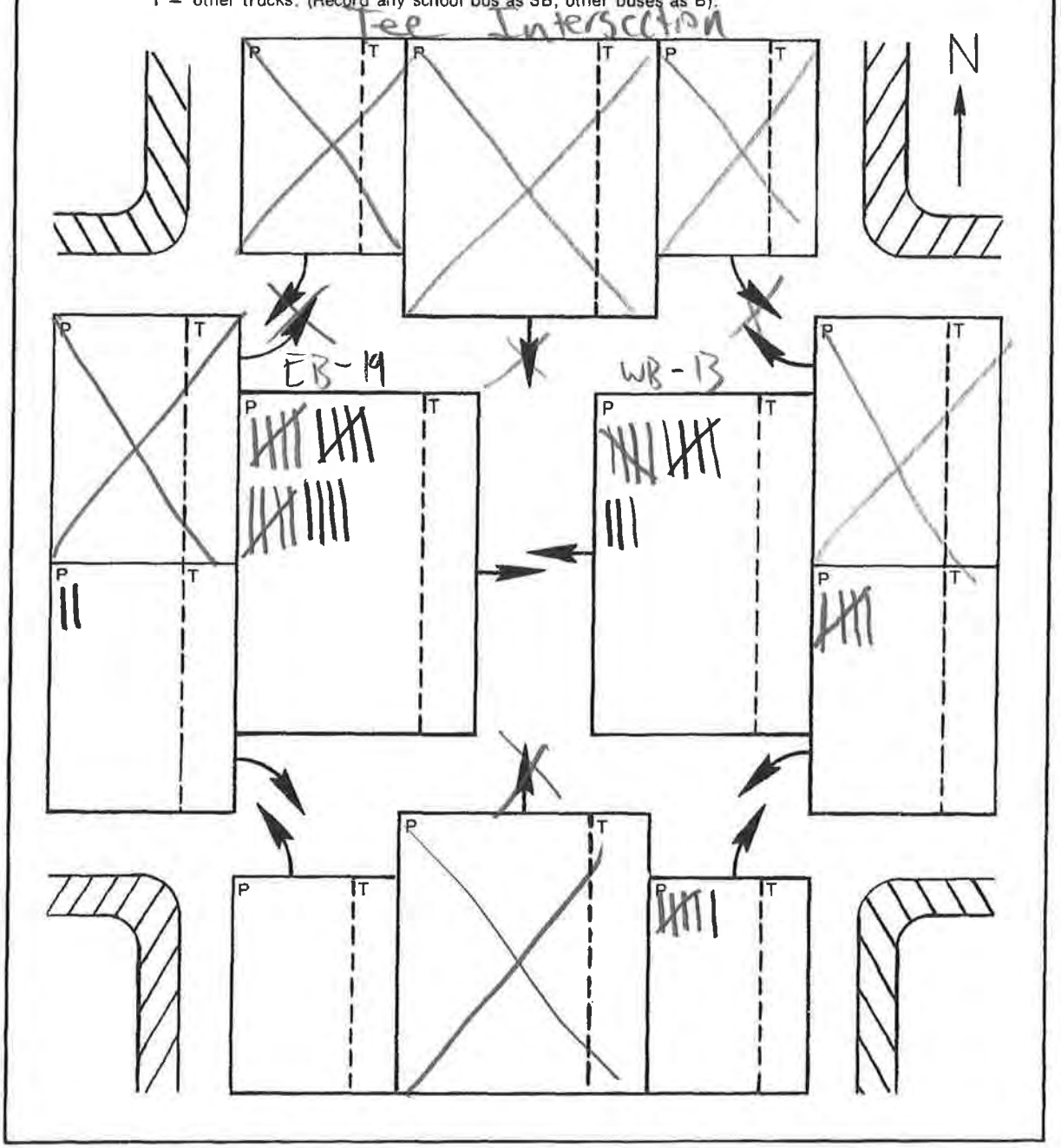


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 8:30 AM to 8:45 AM

N/S Street Smith Street

E/W Street Baldwin Creek

Date 12/17/19 Day

Weather Cold

Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

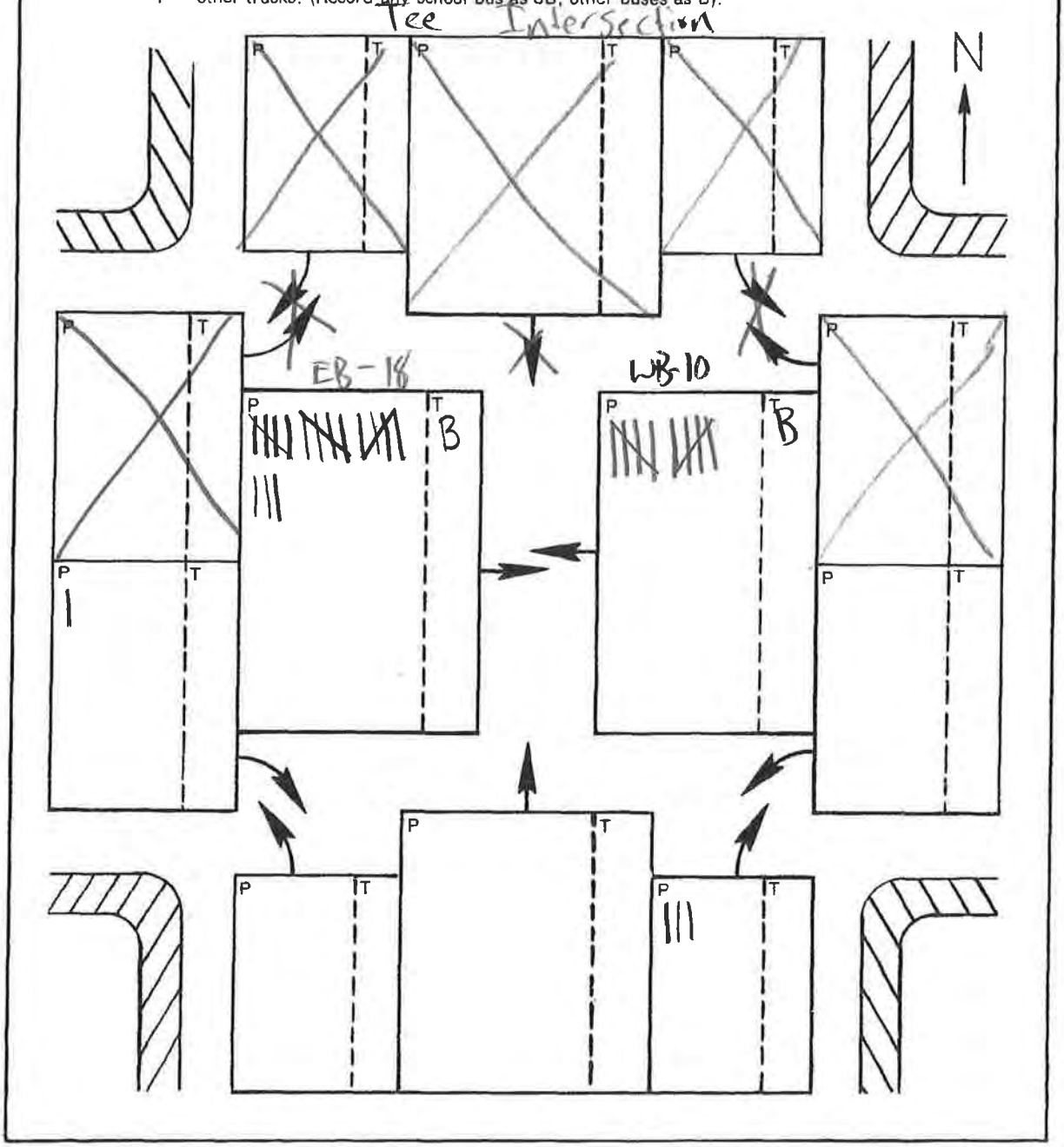


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 8:45 Am to 9:00 Am

N/S Street Smith Street

E/W Street Baldwin creek

Date 12/17/19 Day

Weather Cold

Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

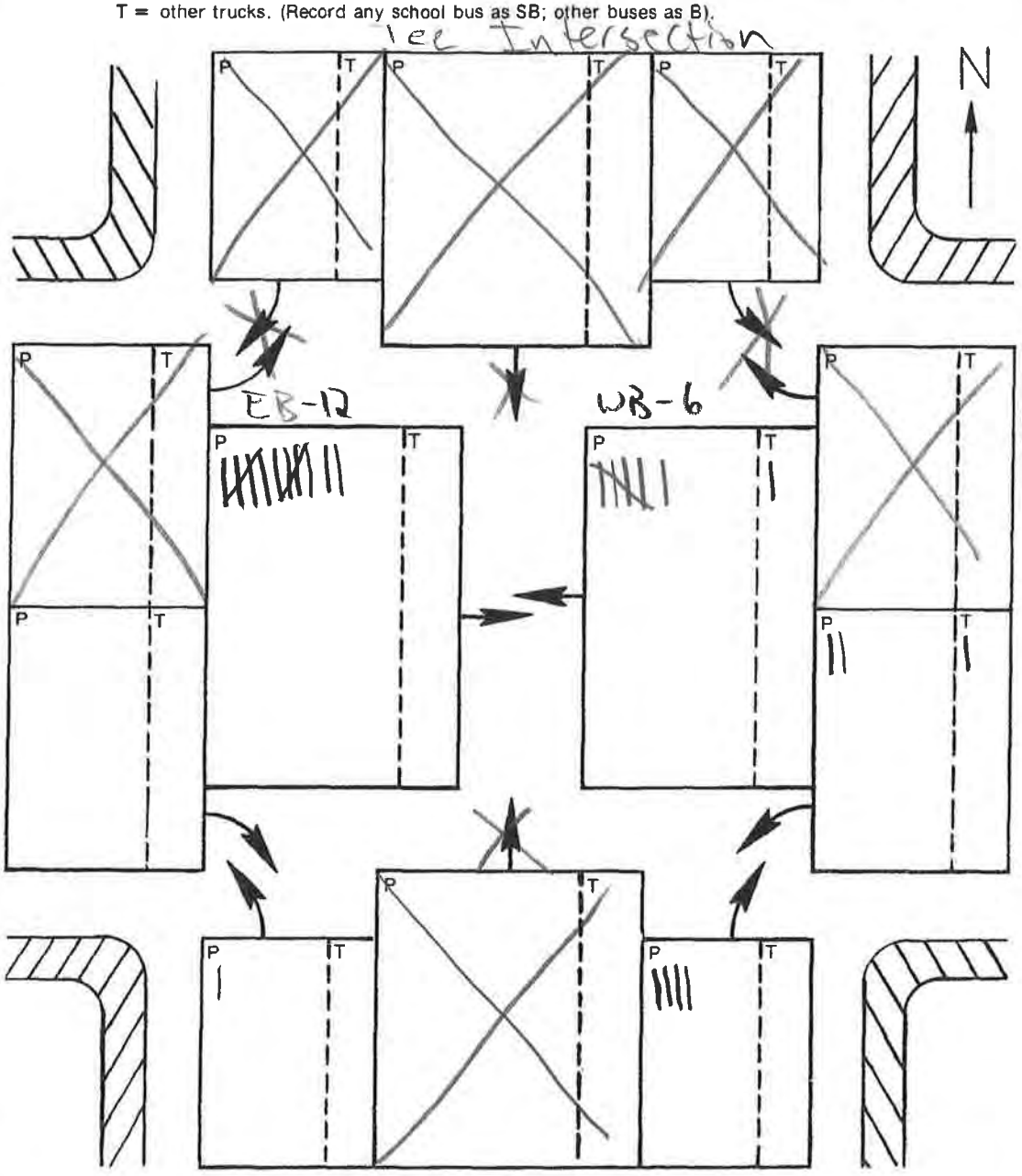


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 2:00 PM to 2:15 PM

N/S Street Smith Street
E/W Street Baldwin Creek

Date 12/17/19 Day
Weather Cold
Observer Kyle LeMo

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

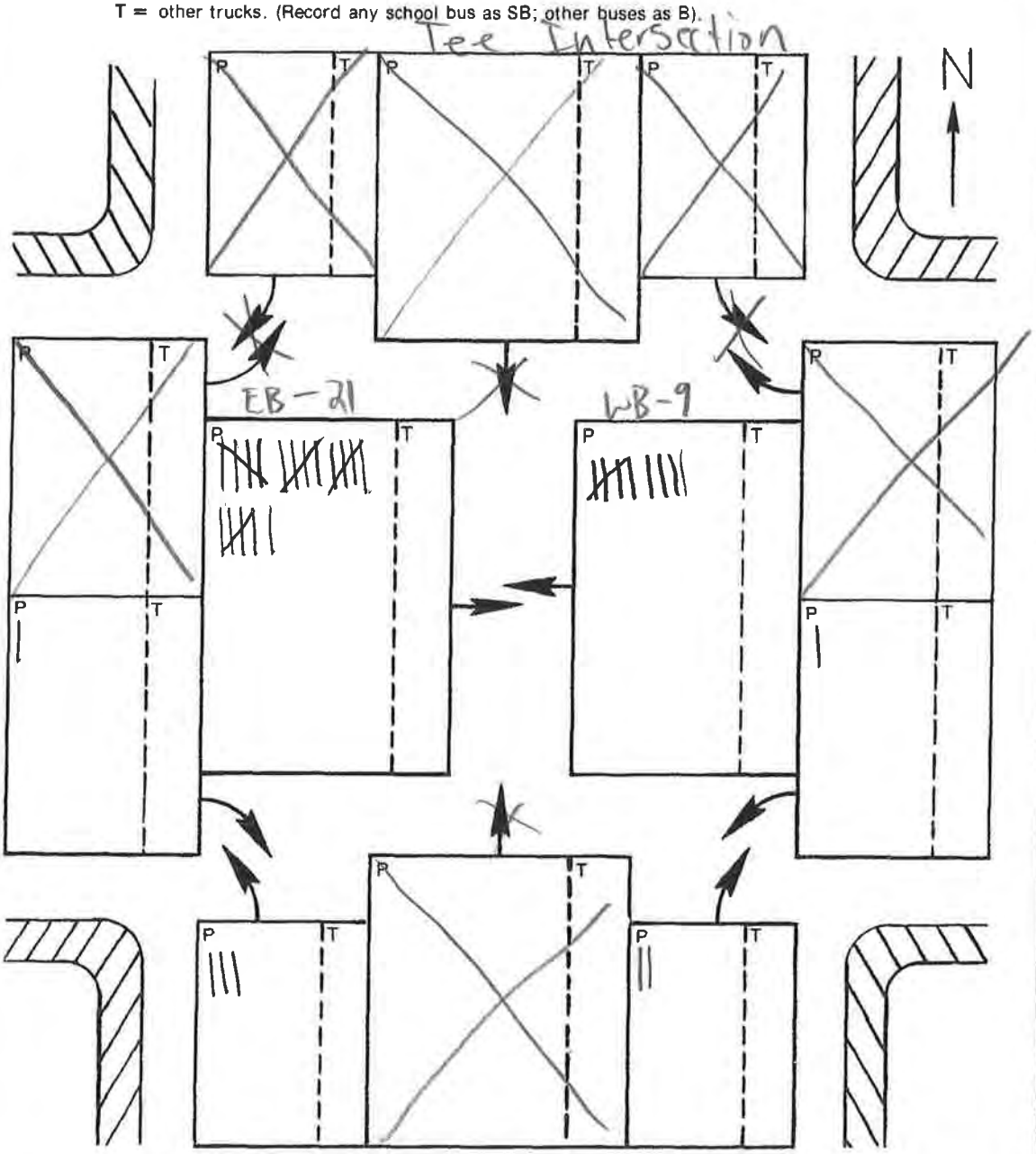


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 2:15PM to 2:30PM

N/S Street Smith Street
E/W Street Baldwin Creek

Date 12/17/19 Day
Weather Sunny, Cold
Observer Kyle LoNto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

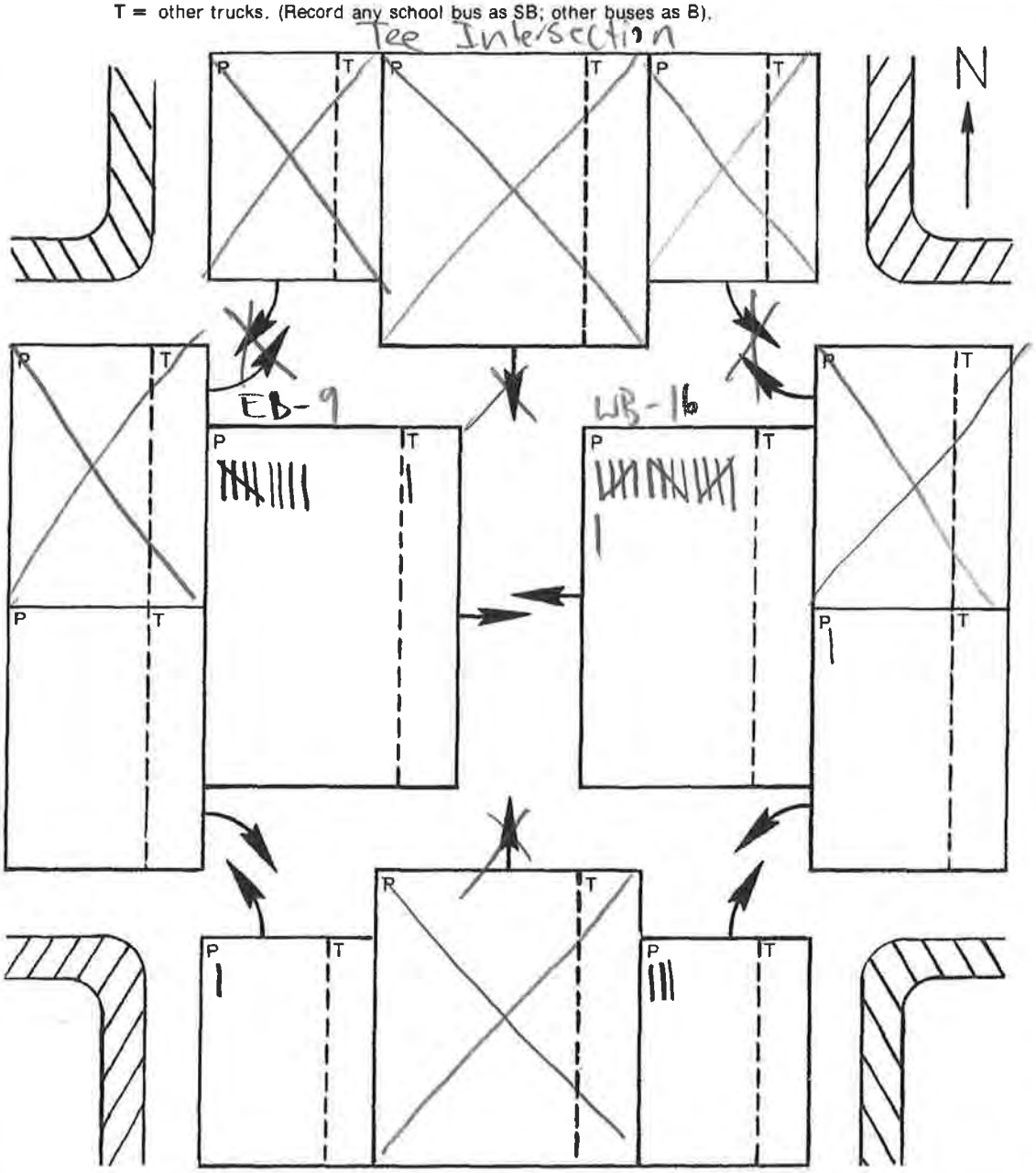


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 2:30 PM to 2:45 PM

N/S Street Smith Street
E/W Street Baldwin Creek

Date 12/17/19 Day
Weather Sunny, Cold
Observer Kyle Lehr

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

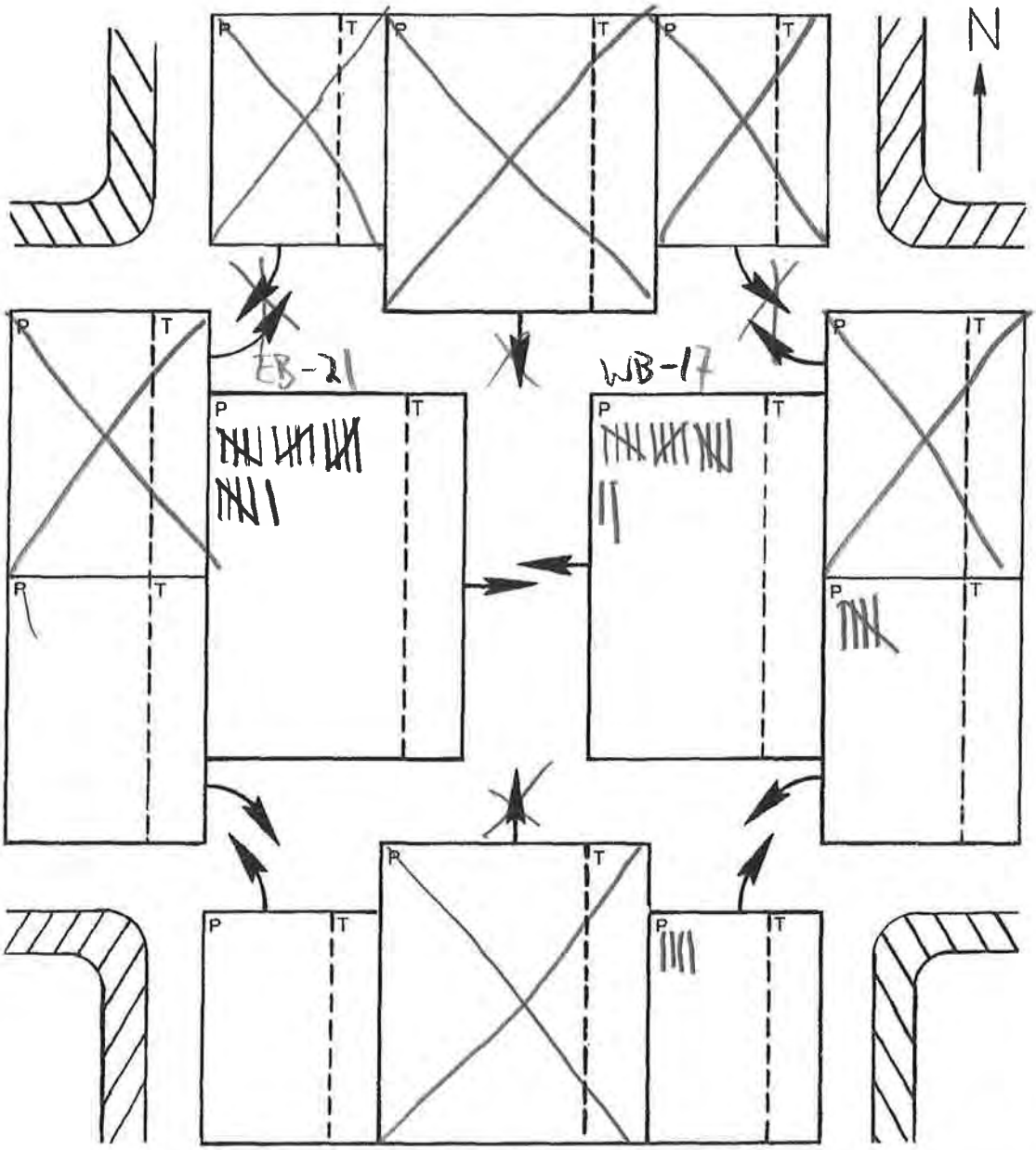


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 2:45PM to 3:00PM

N/S Street Smith Street
E/W Street Baldwin Creek

Date 12/17/19 Day
Weather Sunny, cold
Observer Kyle - Lento

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

Lee Intersection

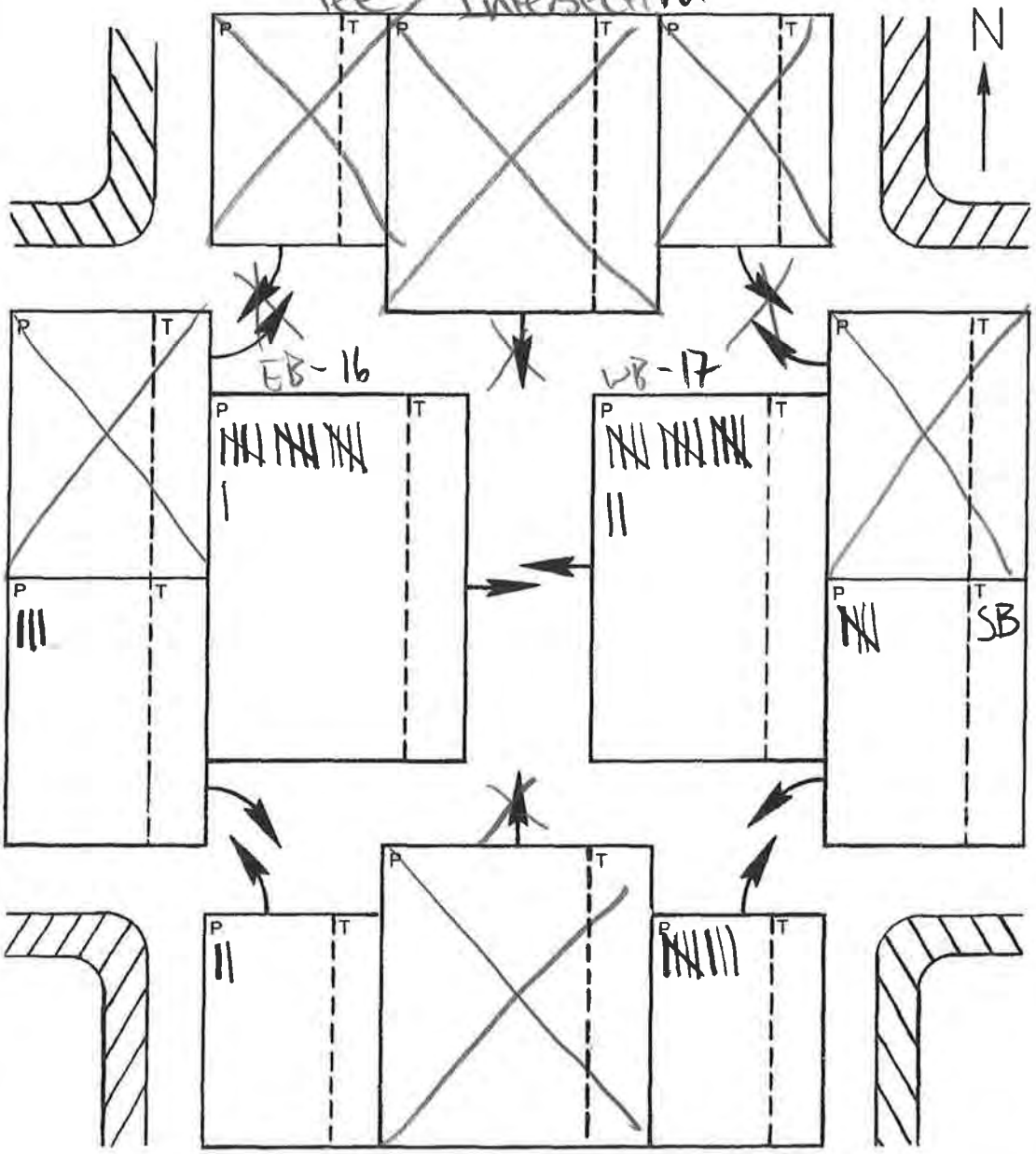


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 3:00PM to 3:15 PM

N/S Street Smith Street
E/W Street Baldwin Creek

Date 12/17/19 Day
Weather Sunny Cold
Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

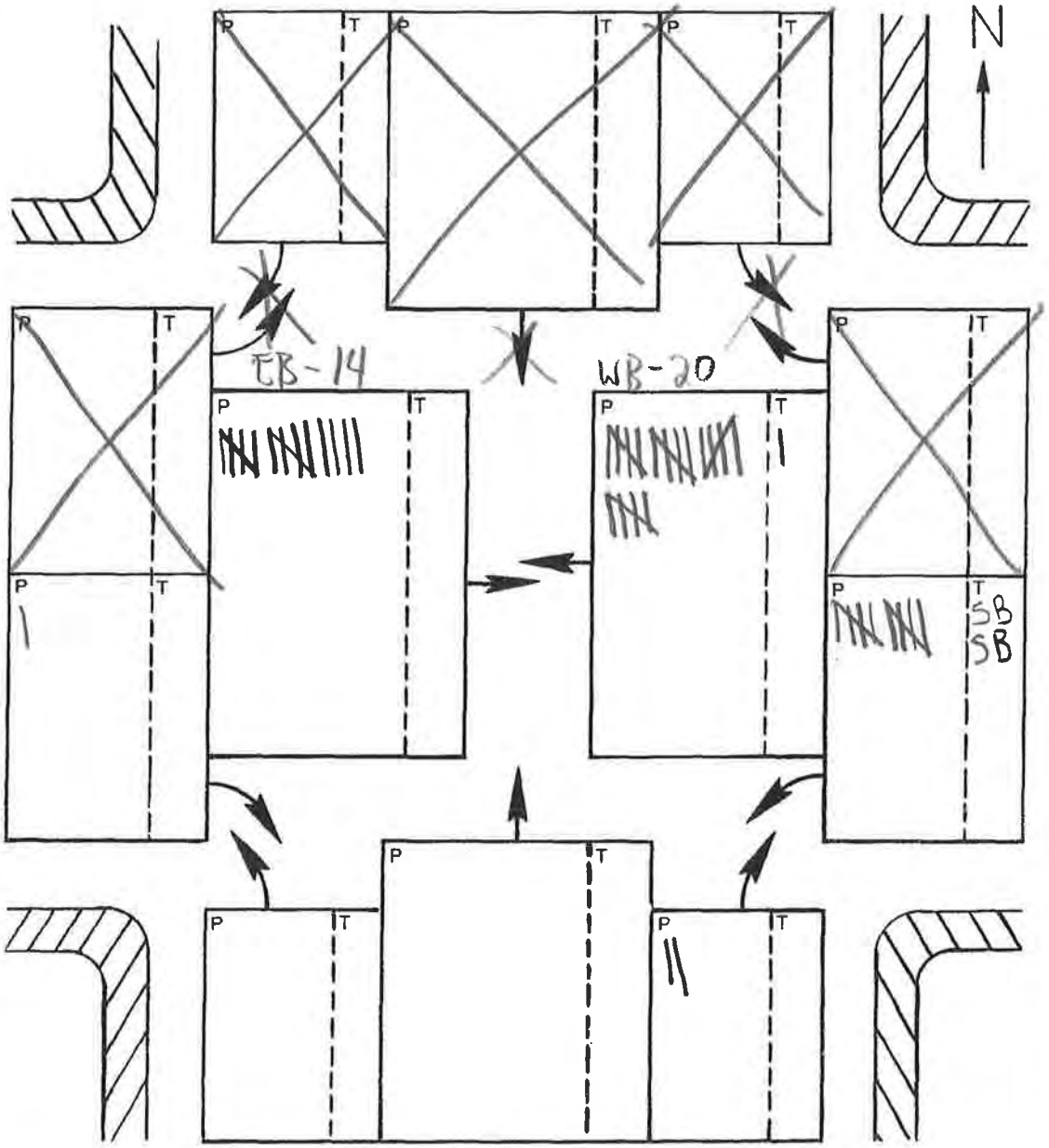


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 3:15PM to 3:30PM

N/S Street Smith Street
E/W Street Baldwin Creek

Date 12/17/19 Day
Weather Cold, Sunny
Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

Tee Intersection

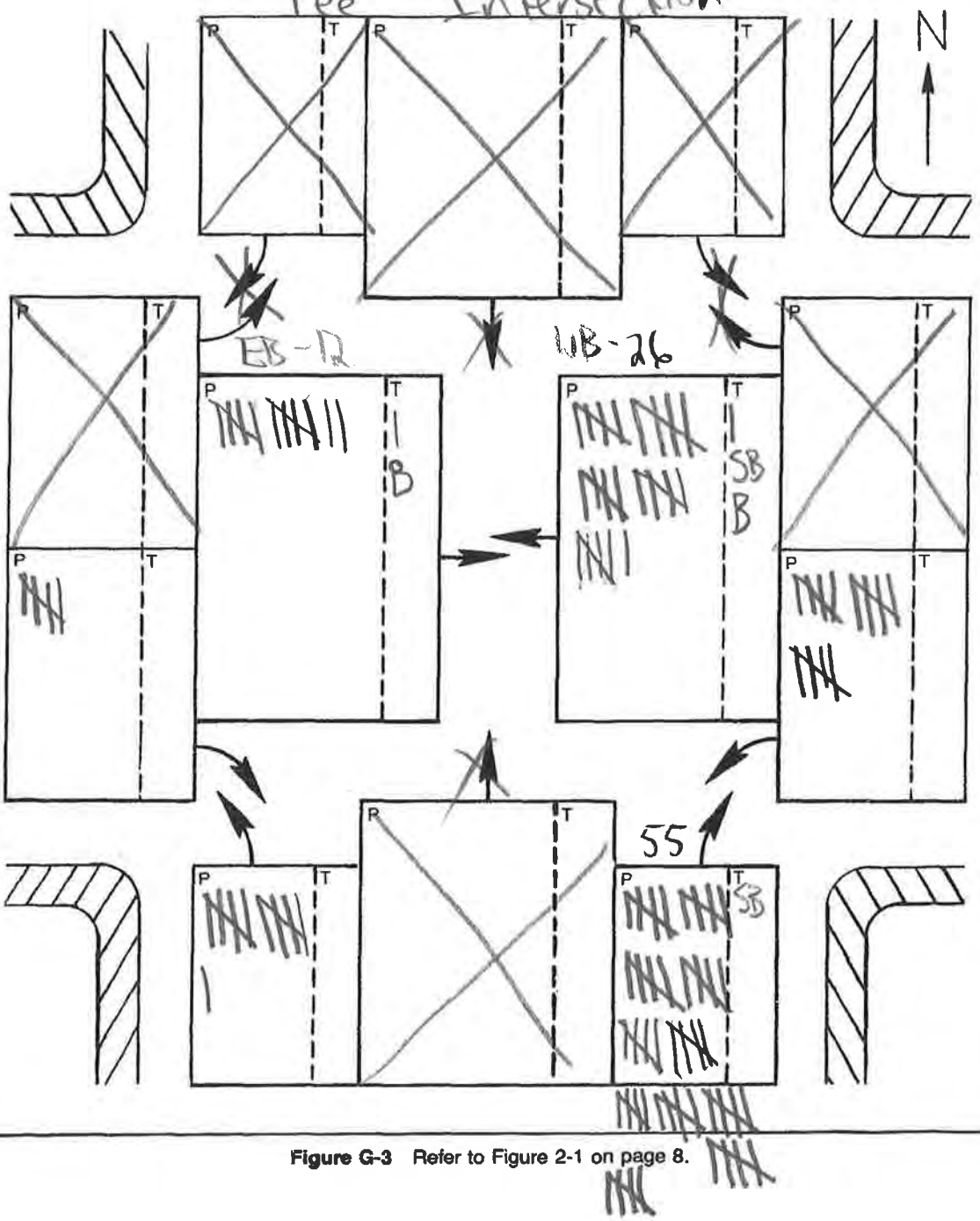


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 3:30 PM to 3:45 PM

N/S Street Smith Street

E/W Street Baldwin Creek

Date 12/17/19 Day

Weather Sunny, Cold

Observer Kyle Lohr

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

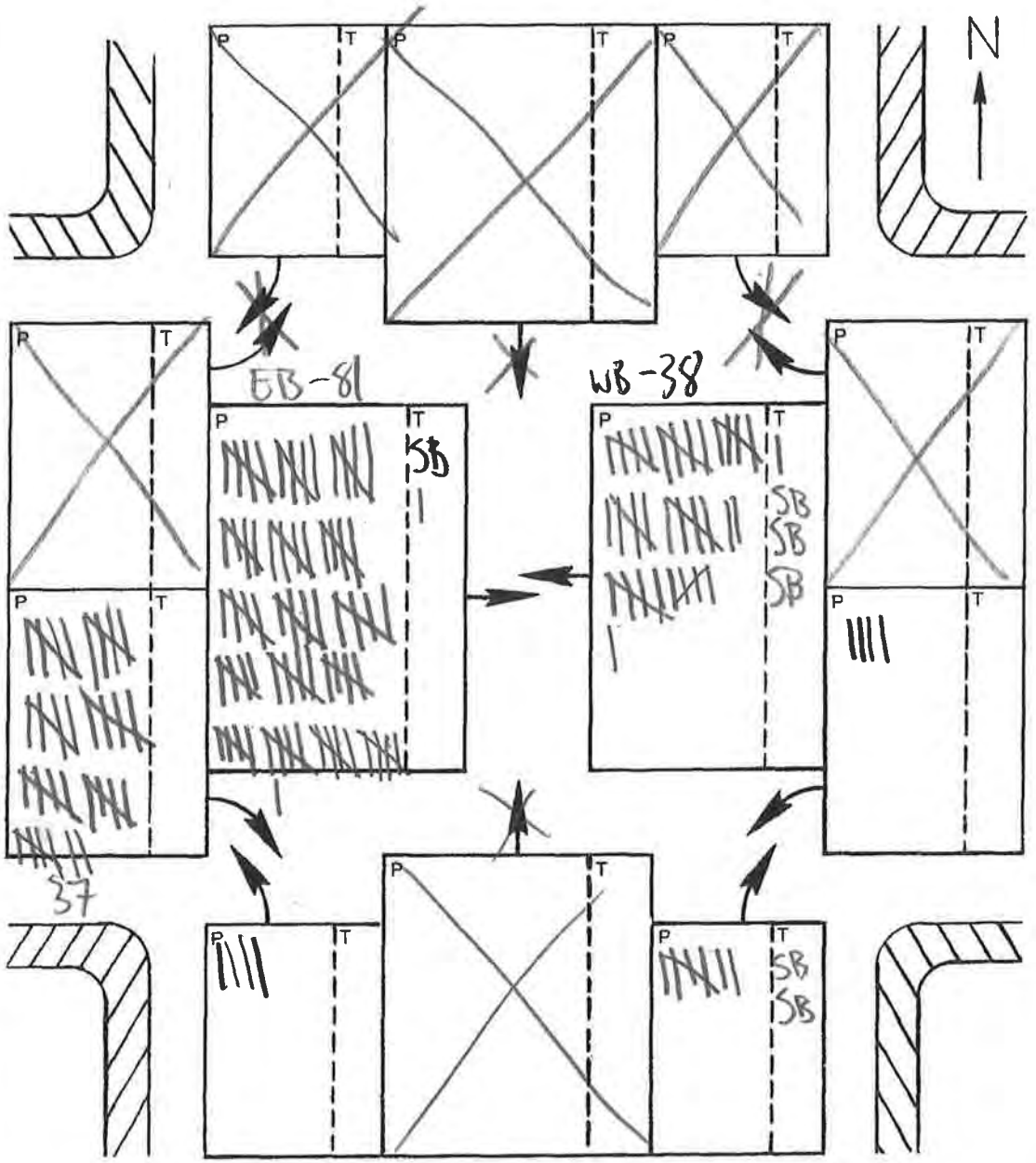


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 3:45 PM to 4:00 PM

N/S Street Smith Street

E/W Street Baldwin Creek

Date 12/17/19 Day

Weather Sunny, Cold

Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

Tee Intersection

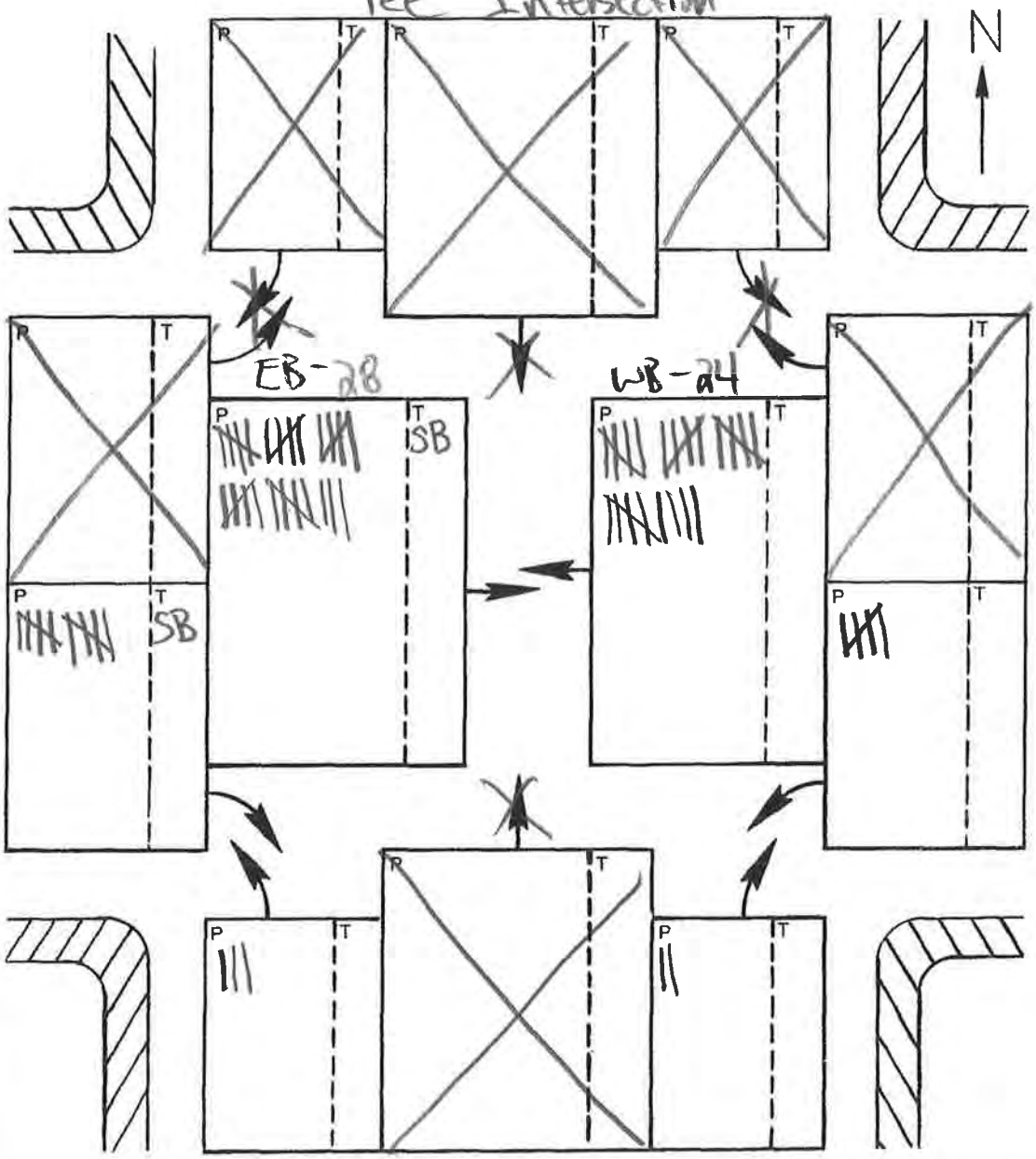


Figure G-3 Refer to Figure 2-1 on page 8.

used counts from 12/17/19

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 3:45 PM to 4:00 PM

N/S Street Smith Street
E/W Street Baldwin Creek

Date 12/23/19 Day
Weather Partly Cloudy
Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

Tee Intersection

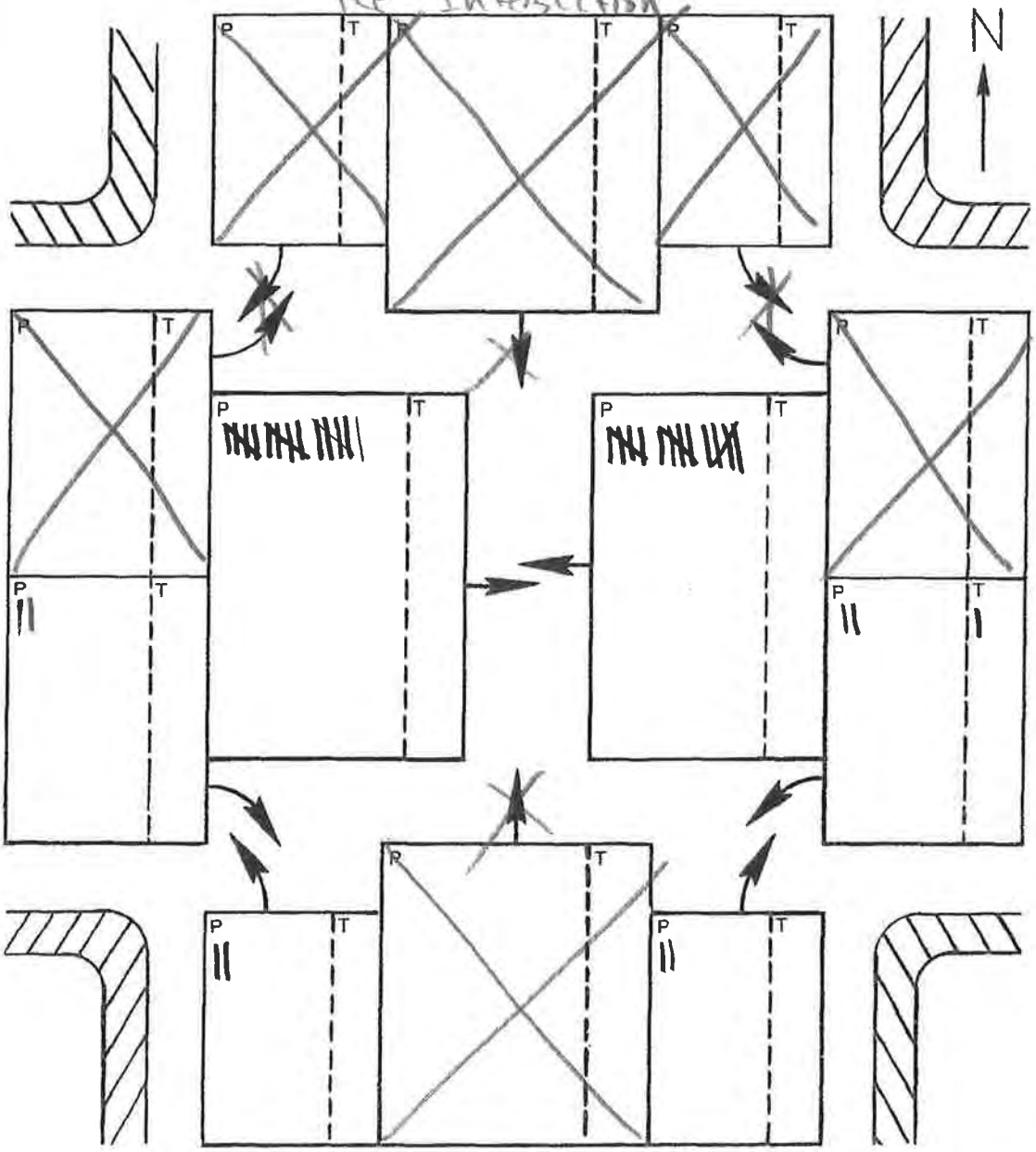


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 4:00 PM to 4:15 PM

N/S Street Smith Street

E/W Street Baldwin Creek

Date 12/23/19 Day

Weather

Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

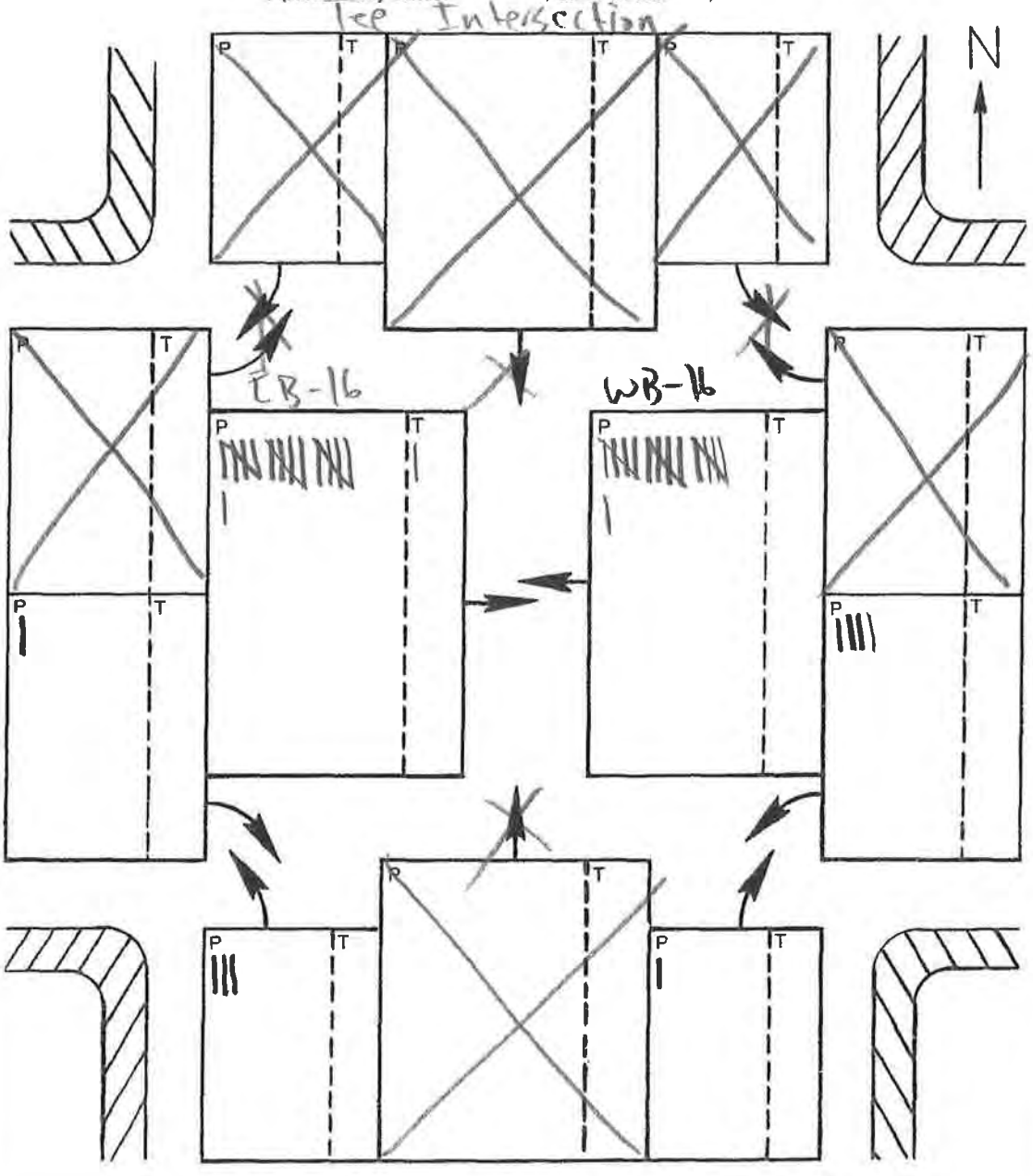


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 4:15 PM to 4:30 PM

N/S Street Smith Street

E/W Street Baldwin Creek

Date 12/23/19 Day

Weather

Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

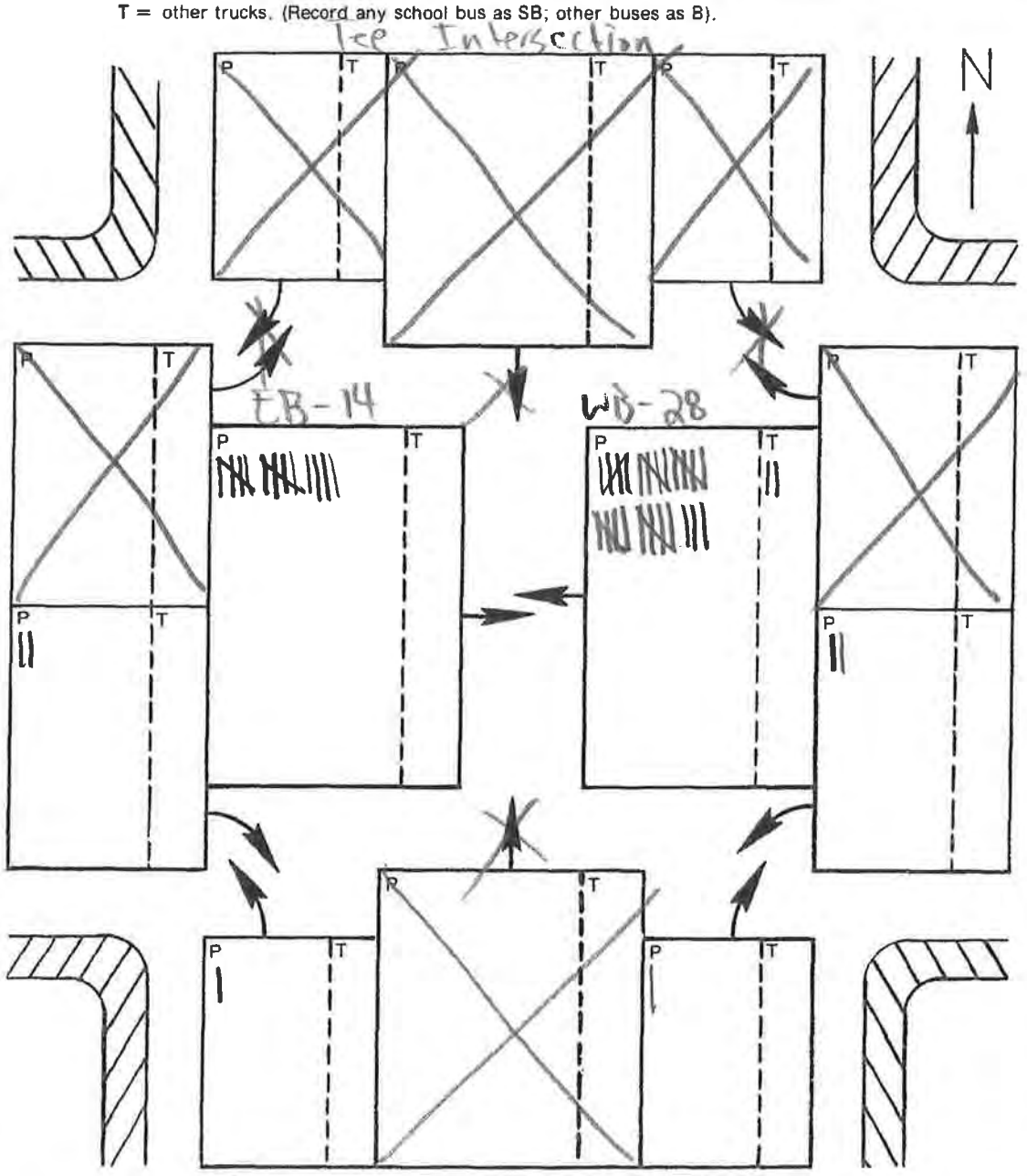


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 4:30 PM to 4:45 PM

N/S Street Smith Street

E/W Street Baldwin Creek

Date 12/23/19 Day

Weather

Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

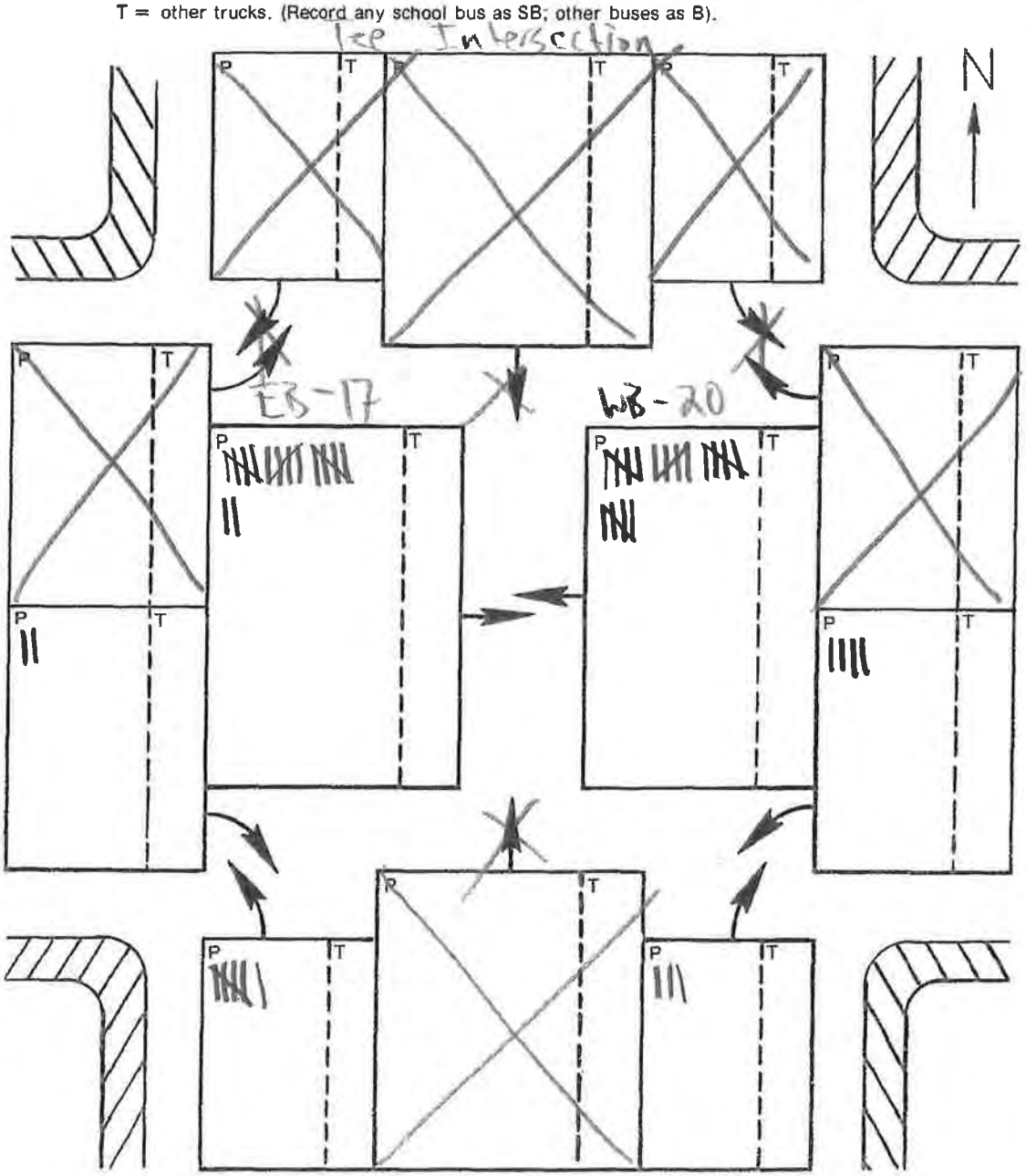


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 4:45PM to 5:00PM

N/S Street Smith Street

E/W Street Baldwin Creek

Date 12/23/19 Day

Weather

Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

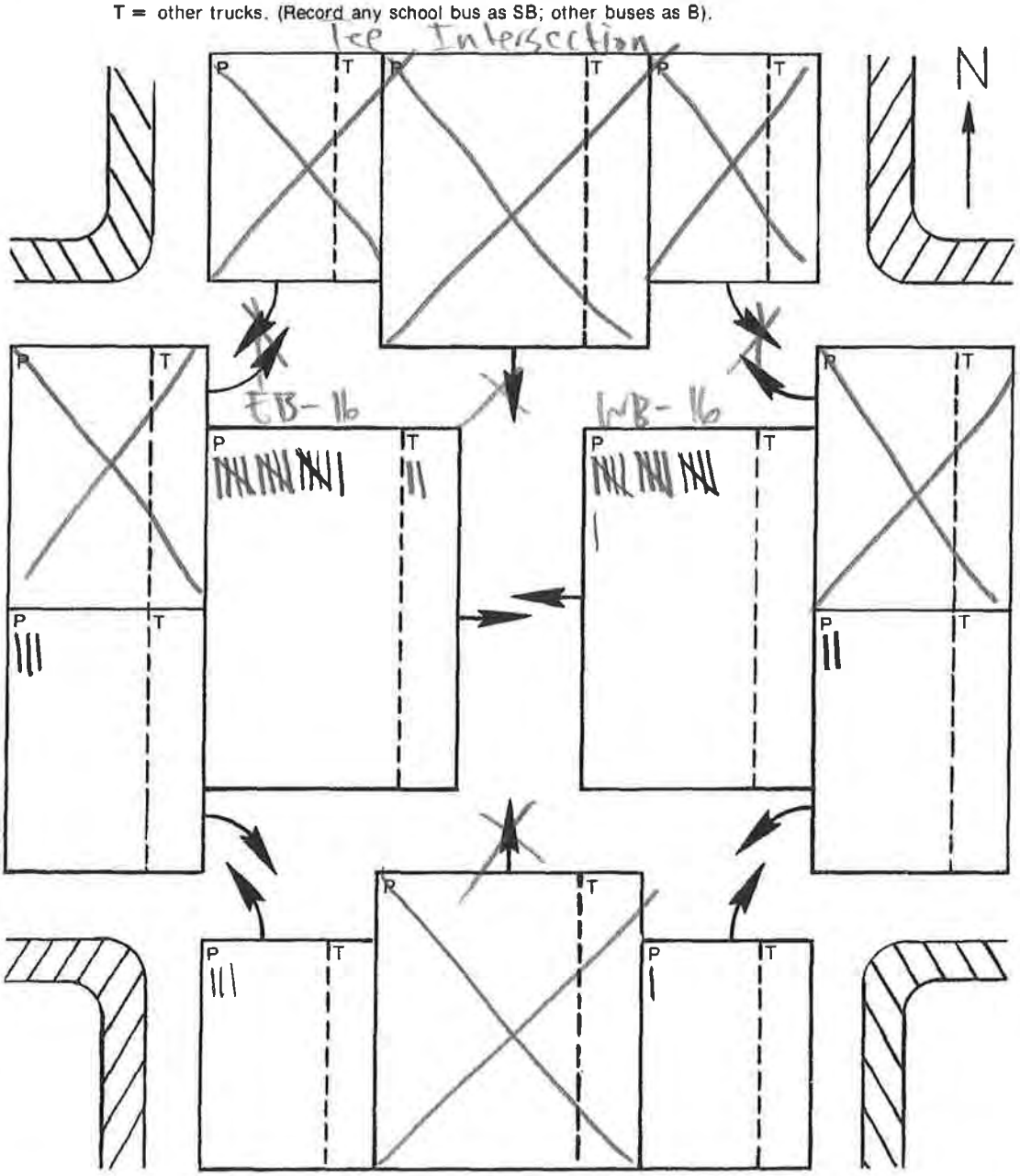


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 5:00 PM to 5:15 PM

N/S Street Smith Street

E/W Street Baldwin Creek

Date 12/23/19 Day

Weather

Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

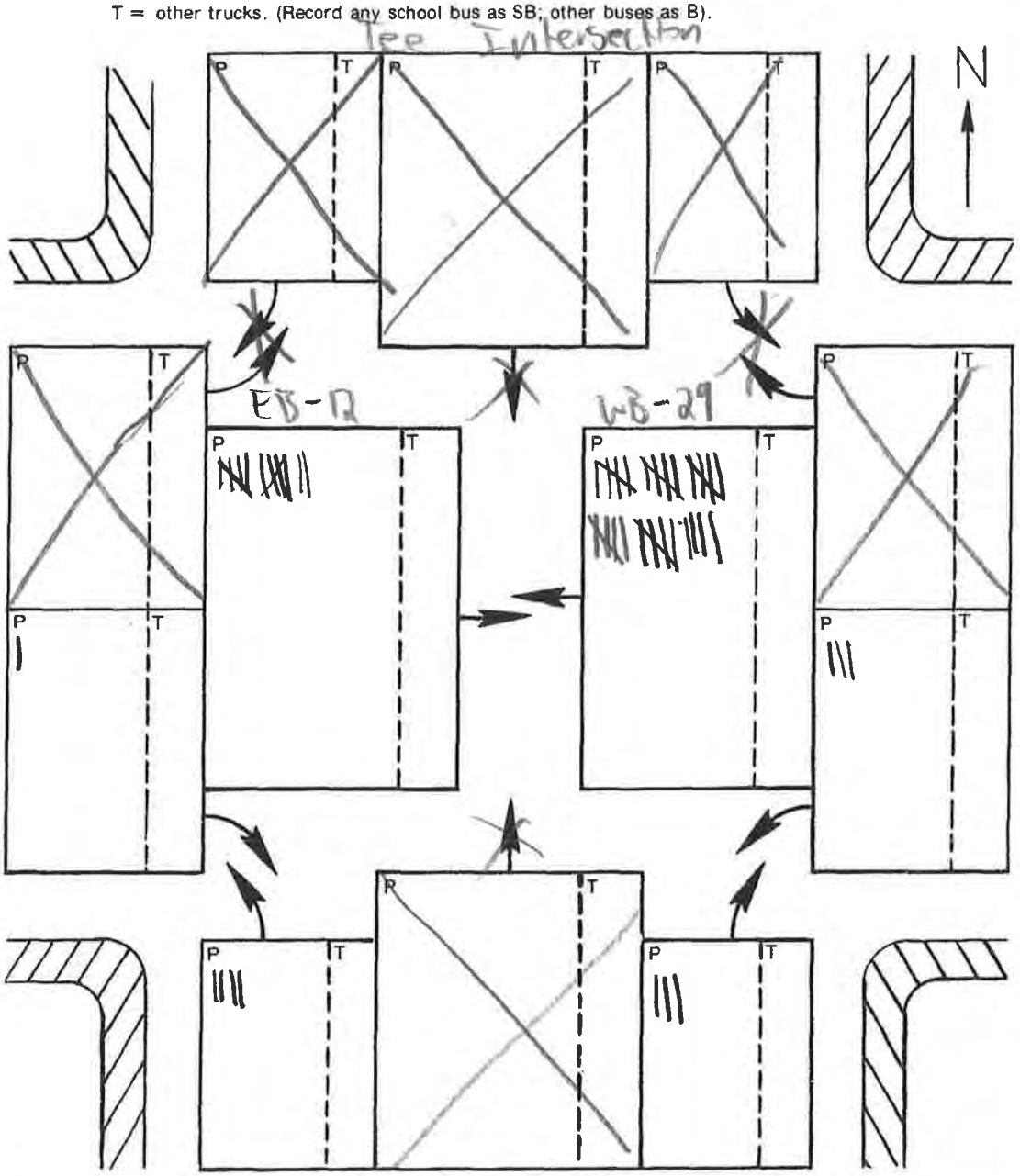


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 5:15PM to 5:30PM

N/S Street Smith Street

E/W Street Baldwin Creek

Date _____ Day _____

Weather _____

Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

Tee Intersection

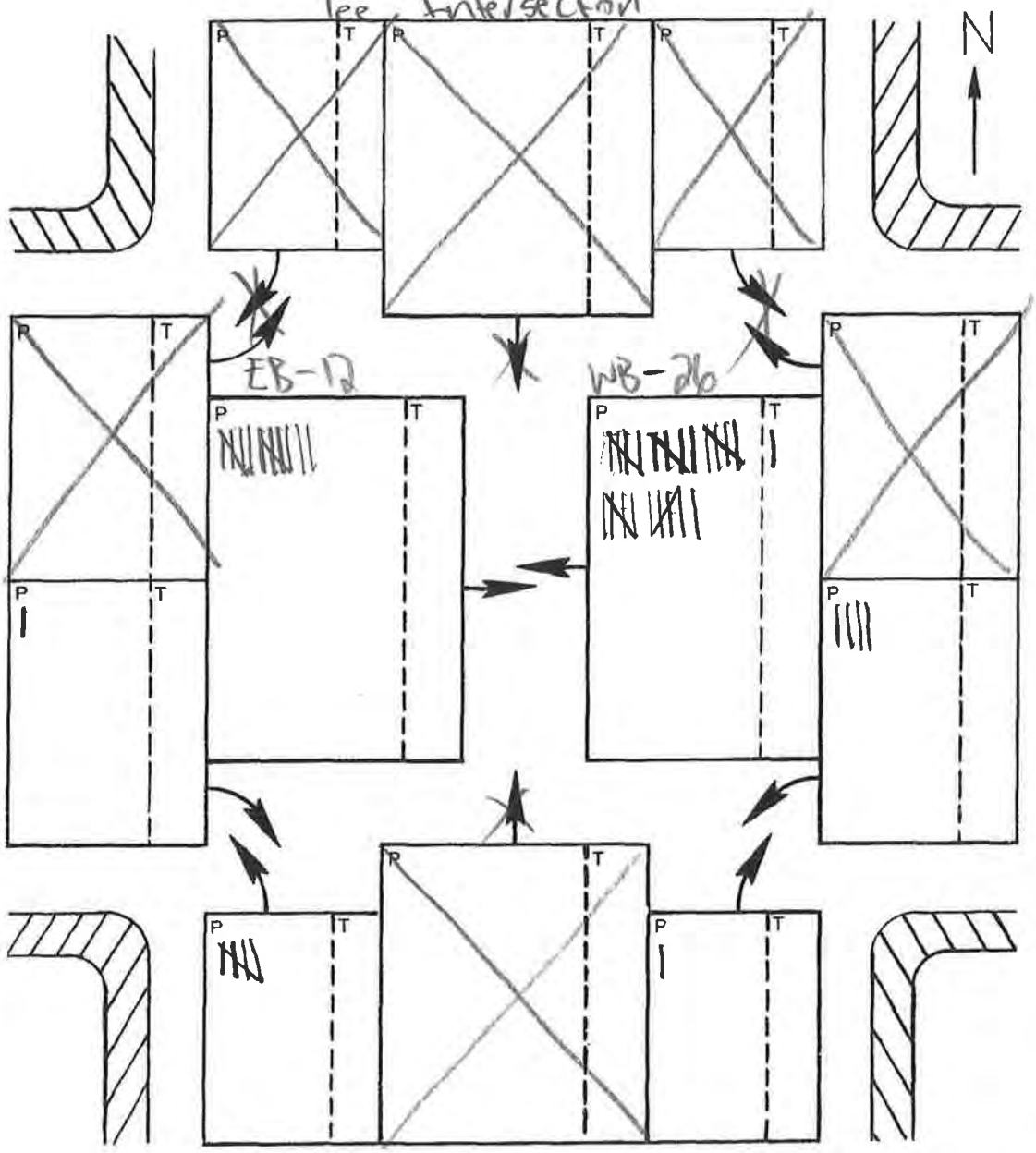


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 5:30 PM to 5:45 PM

N/S Street Smith Street

E/W Street Baldwin Creek

Date 12/23/19 Day

Weather

Observer Kyle Lehb

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

Lee Intersection

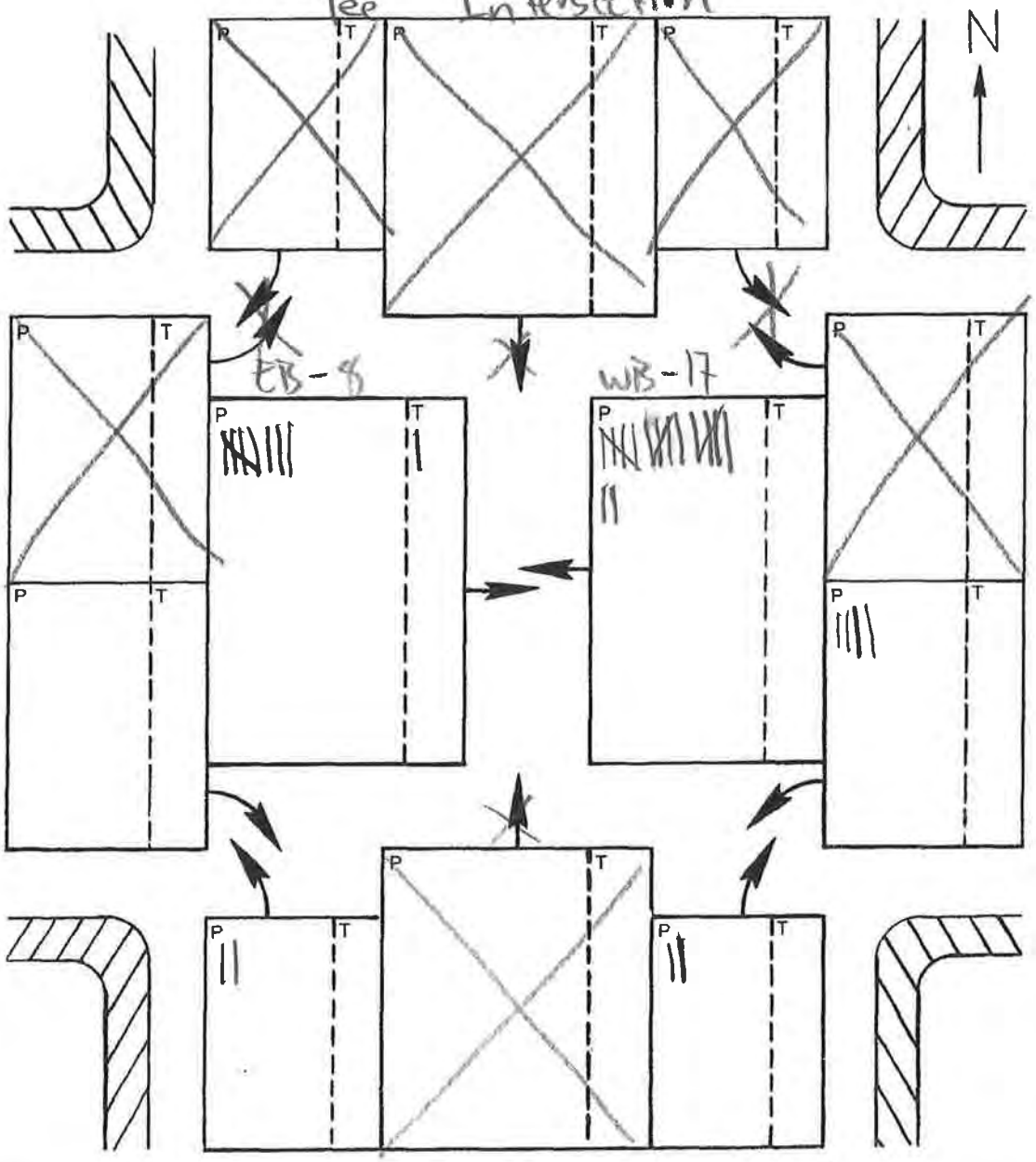


Figure G-3 Refer to Figure 2-1 on page 8.

VEHICLE TURNING MOVEMENT COUNT

FOUR-APPROACH FIELD SHEET

Time 5:45 PM to 6:00 PM

N/S Street Smith Street

E/W Street Baldwin Creek

Date 12/23/19 Day

Weather

Observer Kyle Lehto

P = passenger cars, stationwagons, motorcycles, pick-up trucks.

T = other trucks. (Record any school bus as SB; other buses as B).

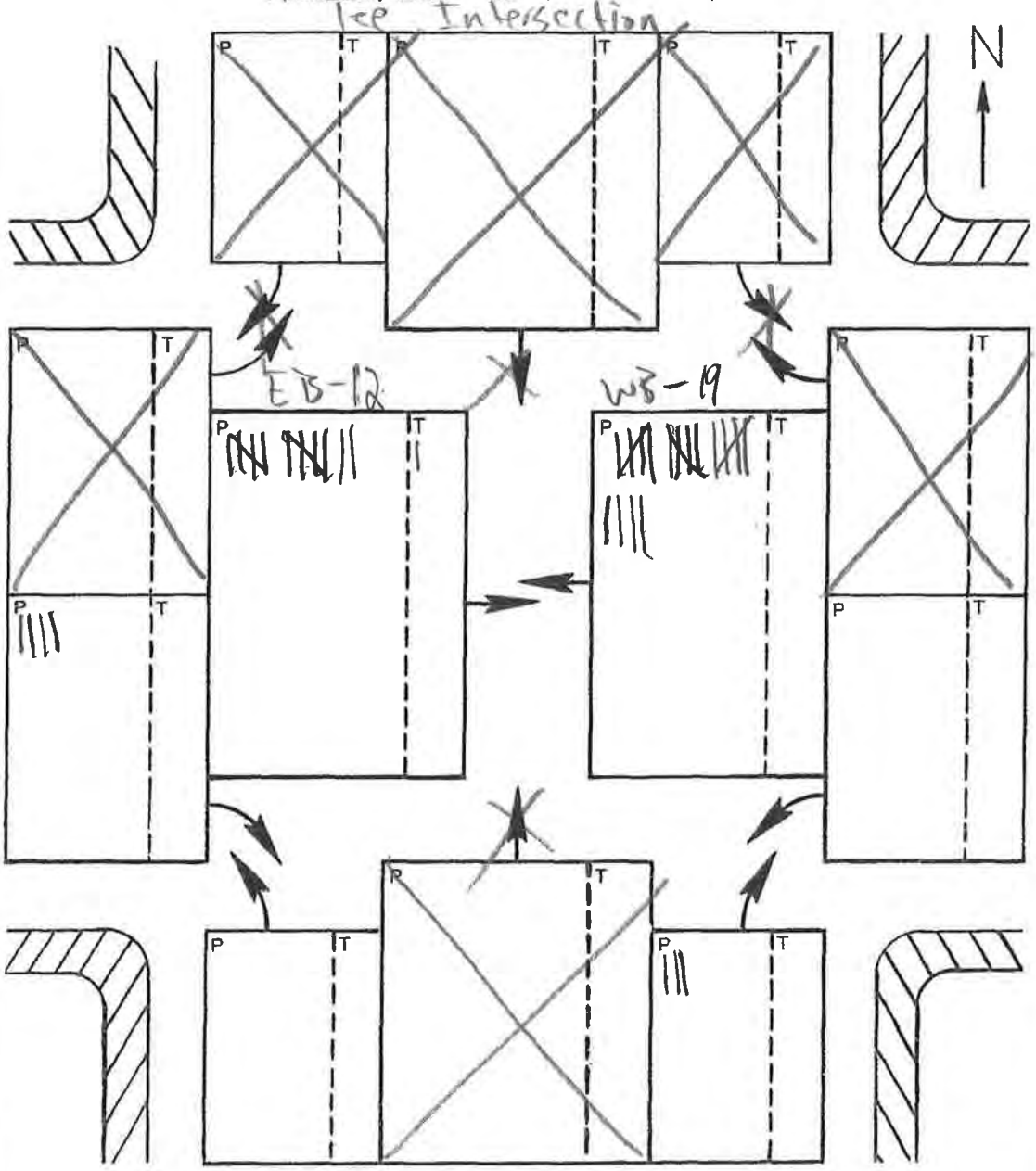


Figure G-3 Refer to Figure 2-1 on page 8.