# South Greeley Highway Corridor Conceptual Plan

## Draft Report
## July 2012

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# SOUTH GREELEY HIGHWAY
# CONCEPTUAL CORRIDOR PLAN

# DRAFT

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# INTRODUCTION

## *Project Background*

The South Greeley Highway (SGH) serves a variety of vital functions within and beyond the South Cheyenne Community. In South Cheyenne, the SGH serves as the "main street" of the community, providing visibility and access for numerous businesses that depend on the highway. At the same time, the South Greeley Highway, in its role as US Highway 85, is a regional highway providing for long distance travel between Cheyenne and its neighbors to the south in Colorado. Thus, combining both local and regional trips, it must carry tens of thousands of vehicles per day safely and efficiently. In addition, area residents travel the corridor by bus, on foot and by bicycle as part of their everyday life in the community.

These multiple functions bring challenges. Like many older highway corridors, the South Greeley Highway corridor exhibits characteristics that are typical of land use planning, access management and roadway design policies and standards that were in place at the time of development but that do not meet the needs of today. Many short, local vehicle-trips are forced to travel the highway itself because the supporting street network is discontinuous. Aesthetics vary widely, and the lack of sidewalks and street lighting along much of the corridor creates hazardous conditions for pedestrians.

The community, which recognized these and other challenges in its recently completed *South Cheyenne Community Assessment,* is committed to enhancing the quality of life and supporting economic growth and prosperity in the corridor. This commitment finds expression in the desire to develop a vision plan for land use, traffic flow, traffic safety, and beautification improvements in the South Greeley Highway corridor.

To further the vision for SGH, the Cheyenne Metropolitan Planning Organization (MPO) initiated the South Greeley Highway Corridor Plan in 2010. The plan has been a collaborative effort involving the general public, corridor stakeholders, the South Cheyenne Community Development Association (SCCDA), and multiple agencies, including Laramie County, the Wyoming Department of Transportation (WYDOT), Federal Highway Administration, and the City of Cheyenne. The plan has sought to listen to public values and concerns, provide policy and strategic statements to guide future corridor improvements and translate those improvements to infrastructure design with a conceptual plan. This project is anchored in the principles established in *PlanCheyenne* and the application of those principles to this particular location.

## *Goal and Objectives*

The goal of the Plan is to create a shared vision for the South Greeley Highway Corridor that sets the stage for multimodal transportation safety and efficiency improvements, encourages beautification efforts along the highway, and provides a catalyst for economic development.

Although there is no current funding for improvements along the highway, it is hoped that this vision will establish a blueprint that can be used by the community to guide future improvements that will build toward the ultimate vision as opportunities present themselves. These opportunities could arise when a landowner is considering development or redevelopment or when funding becomes available.

To support this goal, the project steering committee identified a series of objectives:

1. Involve the public and stakeholders in the planning process
2. Address needs of all corridor users and travel modes in the plan
3. Suggest future corridor land uses to address corridor-specific needs and opportunities
4. Recommend access management strategies toward improving both vehicular access and South Greeley Highway safety and efficiency.
5. Recommend solutions for existing traffic safety issues
6. Analyze existing and future multimodal intersection operations and recommend traffic control enhancements
7. Identify future roadway and multimodal links to improve the transportation network
8. Identify capital and maintenance costs and sources of funding for future improvements
9. Develop templates for the future streetscapes of the South Greeley Highway
10. Provide an implementation plan for recommended improvements, including project prioritization and phasing methods to provide large or small components to match available funding
11. Compile most recent plans of all corridor utilities and develop overall utility mapping information
12. Develop policy guidelines for maintenance of future corridor improvements

## *Study Area*

**Figure 1** depicts the study area and vicinity. As shown, the entire corridor length lies within Laramie County, with the South Greeley Highway (US Highway 85) entering the City of Cheyenne near Interstate 80 (I-80).The study area includes approximately 4.4 miles of the South Greeley Highway between I- 80 on the north and Terry Ranch Road on the south. The study area extends east to Avenue C and west to Walterscheid Boulevard.

# Vicinity Map

South Greeley Highway Corridor Conceptual Plan **Figure 1**

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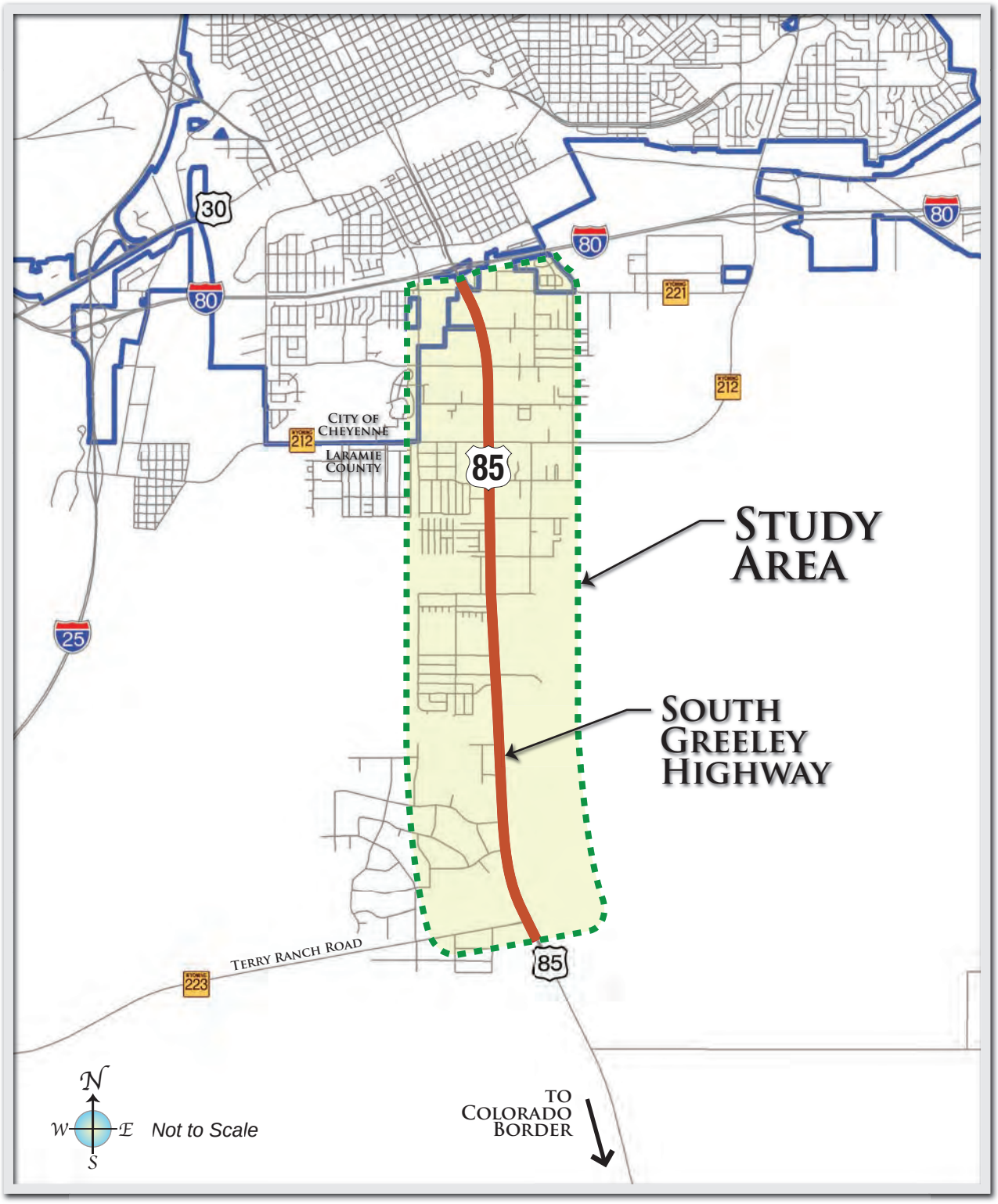

# Planning and Public Involvement Process

## Project Governance

The project was supervised by a steering committee comprised of representatives of the following agencies:

- Cheyenne Metropolitan Planning Organization (MPO)
- Laramie County
- City of Cheyenne
- Wyoming Department of Transportation
- Laramie County School District #1
- South Cheyenne Community Development Association (SCCDA)
- Federal Highway Administration
- South Cheyenne Water and Sewer
- Cheyenne Light, Fuel and Power

The steering committee met 5 times throughout the project to guide the work of the consultant team, review project information, discuss public and stakeholder involvement efforts, and collaborate to make decisions about plan direction and recommendations.

## Planning Phases

The work process to complete the Corridor Plan is illustrated in **Figure 2**. The project generally followed the four phases of PlanCheyenne: Snapshot, Structure, Shape and Build.

The **Snapshot** phase captured current characteristics of the South Greeley Highway, including traffic crash history, traffic volumes, intersection traffic operations, land use, non-motorized travel and transit, and roadway network conditions. The project team assembled corridor mapping, zoning information, aerial photography and previous studies and reports related to SGH and South Cheyenne.

The **Structure** phase brought a collaborative effort to define the vision for the Corridor Study area. Information gathered during the Snapshot phase and meetings with the project Stakeholder group and Steering Committee helped frame the vision.

Development of the plan occurred in the **Shape** phase. Each of the vision elements in the Structure phase were formed into a series of policies and strategies to be implemented to eventually bring about the vision.

The **Build** phase was used to prioritize corridor strategies and identify action steps toward implementing the plan over time. Potential sources of project funding are identified in this phase.

# Work Flow

## South Greeley Highway Corridor Conceptual Plan — Figure 2

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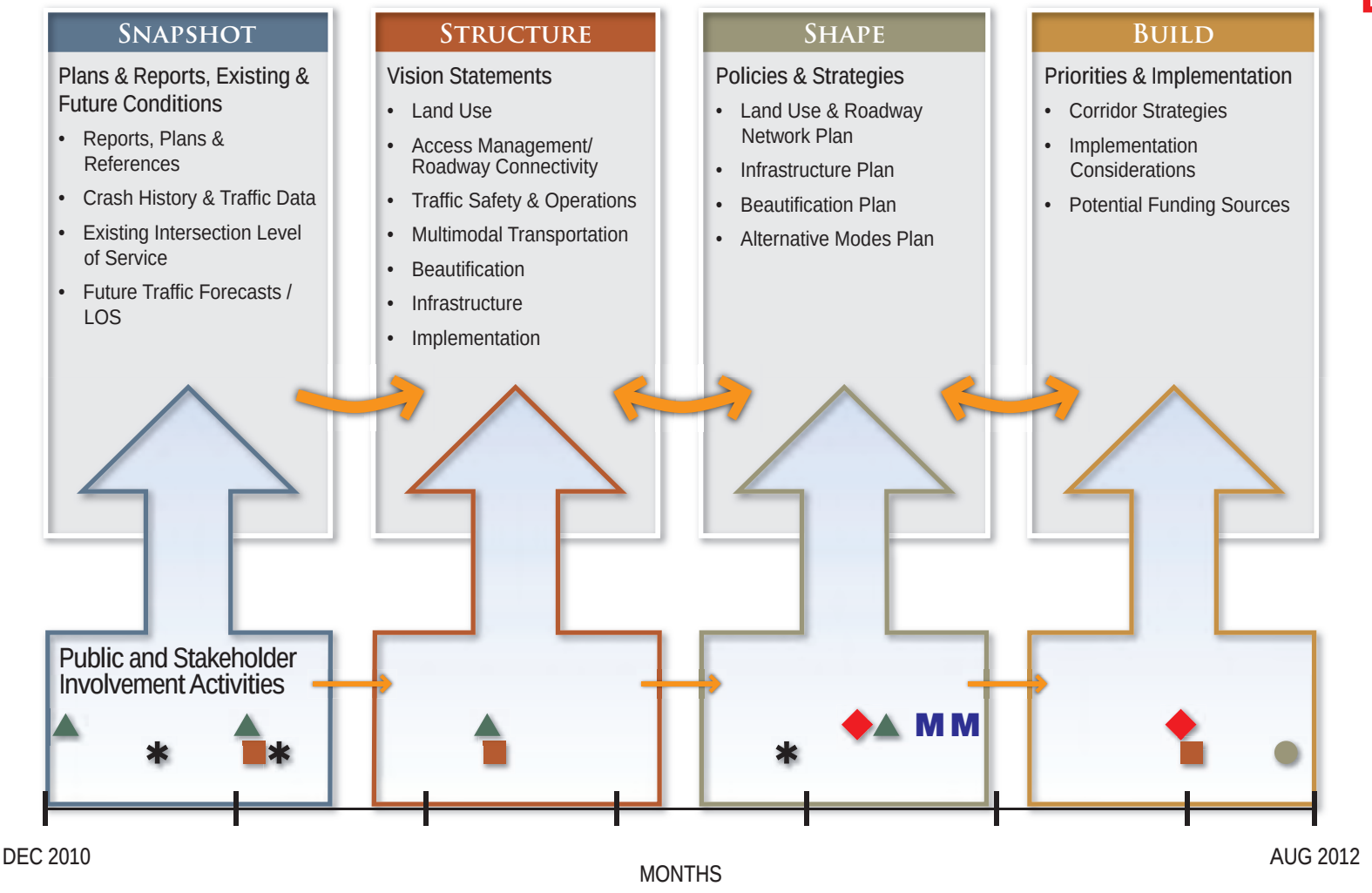


▲ - Steering Committee Meeting  ✱ - Public Meeting  ■ - Stakeholder Meeting  ● - Agency Presentation  ◆ - Individual Meetings  **M** - MPO Committee Meetings

## Public and Stakeholder Involvement

As shown on **Figure 2**, the public and stakeholder involvement process has extended throughout the project, supporting each of the four phases. Activities were coordinated with the following groups:

**Stakeholder Group** – The project team reached out to local businesses, residents and land owners to form a stakeholder group of 15 individuals to be involved in the project. The project team sought input from the group early in the project and met again with the Stakeholders to collaborate on the shared vision for the corridor. The group will meet again prior to project completion. In addition to two corridor residents, the project stakeholder group included representatives of:

- Palomino Industries
- Tripoli Square Shopping Center
- American Storage and Postal
- Heartland Homebuilders
- Action Automotive
- Town and Country Pharmacy
- Town and Country Liquor
- West Winds Mobile Home Community
- Dirty Duds Commercial Linen Service

**Individual Business and Landowner meetings** – To gather additional input and feedback on the corridor plan, the project team conducted a series of individual meetings with landowners and businesses along the South Greeley Highway corridor. The individual meetings offered a way to connect with those residents, business and land owners not able to participate in the Stakeholder group and provided additional opportunities to coordinate directly with members of the Stakeholder group. Meetings were held with 17 individuals in total, and multiple meetings were held with several individuals.

**General Public** – The general public consisted of citizens interested in the future of the corridor who attended the public open houses and made comments on the direction and content of the plan.

**Table 1** provides a summary of all public, stakeholder, and steering committee activities for the project and the planning phase supported by each.

**Table 1. Public and Stakeholder Involvement Activities by Phase**

| Activity and date by Planning Phase | | | |
|---|---|---|---|
| **Snapshot** | **Structure** | **Shape** | **Build** |
| ▪ Steering Committee Kickoff (12/8/10) | ▪ Stakeholder Group #2 (6/22/11) | ▪ Steering Committee #4 (9/20/11) | ▪ Individual Meetings |
| ▪ South Cheyenne Showcase (2/28/11) | ▪ Steering Committee #3 (6/22/11) | ▪ Individual Meetings (10/6/11) | ▪ Stakeholder Group #3 |
| ▪ Stakeholder Group #1 (3/1/11) | | ▪ Public Open House #2 (11/30/11) (Attendance: **45**) | ▪ Agency Presentation(s) |
| ▪ Steering Committee #2 (3/2/11) | | ▪ Individual meetings (12/2011) | |
| ▪ Corridor Walk-through (3/22/11) | | ▪ Steering Committee #5 (1/12/12) | |
| ▪ Public Open House #1 (3/22/11) (Attendance: **42**) | | ▪ MPO Technical Committee (2/15/12)<br>▪ MPO Policy Committee (4/12/12) | |

As shown, a significant outreach effort accompanied the Snapshot phase to capture input about current corridor conditions and receive comments from citizens, business owners and agencies. This input helped the stakeholder and steering committee groups craft a corridor vision at meetings held during the Structure phase.

The Shape phase was supported by meetings with individuals, steering committee meetings, a public open house, and two meetings with MPO committees, where corridor policies and strategies were presented, discussed and refined.

This draft report will be presented and discussed with individuals, stakeholders and agencies during the Build phase. Plan content will be revised as needed to address comments received and provide information needed by decision-makers to implement the plan.

# 1.0 SNAPSHOT

## 1.1 Roadway Network

The primary roadway network is depicted on **Figure 3** and can be described as follows:

### 1.1.1 North-South Roadways

**South Greeley Highway (US Highway 85)** – US Highway 85 is a north-south United States Highway that runs for nearly 1,500 miles between El Paso, Texas and the Canadian border. Over this length, it is known as the CanAm highway. In the Cheyenne area, US 85 is called South Greeley Highway (SGH), a principal arterial roadway maintained by the Wyoming Department of Transportation (WYDOT). SGH is posted at a range of speeds through the study area increasing from 40 miles per hour (mph) near I-80 up to 65 mph south of Julianna Road. Four travel lanes are provided throughout the 4.4 mile study length.

**Walterscheid Boulevard** – Walterscheid Boulevard is a two-lane, collector roadway that parallels SGH on its west side approximately 0.5 miles away. Walterscheid Boulevard passes beneath I-80 at a grade-separated crossing north of the study area. The southern terminus of Walterscheid Boulevard is College Drive. It is posted at 35 mph through the study area.

**Avenue C** – Avenue C is a two-lane minor arterial parallel to SGH on the east side. Similar to Walterscheid Boulevard, Avenue C passes underneath I-80 and extends north into the City of Cheyenne. It is posted at 30 mph through the study area.

**South Greeley Highway Frontage Road** – Between Wallick Road and High Plains Road, a frontage road parallels SGH on its west side. The frontage road provides two travel lanes and accesses SGH at five locations over its 1-mile length.

Overall, north-south roadway continuity is extremely limited in the study area. Avenue B-6 provides sporadic continuity between Fox Farm Road and Nation Road as a two-lane roadway east of SGH, but all other north-south roadways provide only local access and do not support longer trips.

### 1.1.2 East-West Roadways

**Interstate 80** – Interstate 80 (I-80) extends east-west from San Francisco to New York City. In the Cheyenne area, I-80 extends across the south edge of the City of Cheyenne and provides two travel lanes in each direction. I-80 interchanges with Interstate 25 west of the study area, and is posted at 75 mph.

**Fox Farm Road** – Fox Farm Road is an arterial roadway that extends approximately 2.5 miles east and west from SGH. It provides two travel lanes and is posted at 30 mph west of SGH and 40 mph east of SGH.

# Study Area

## South Greeley Highway Corridor Conceptual Plan — Figure 3

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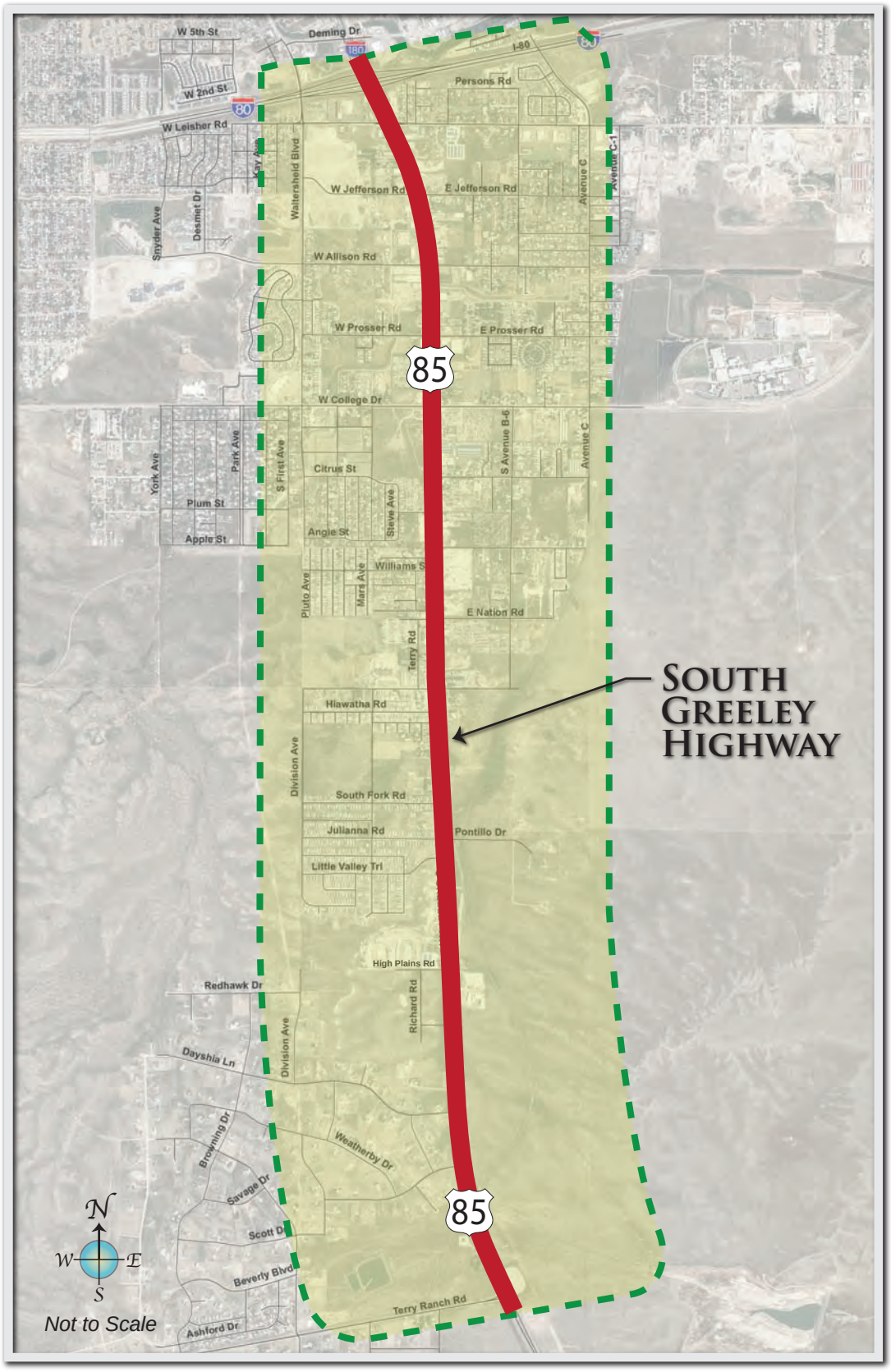

**College Drive** – College Drive, State Highway 212, is a loop road around the south and east sides of Cheyenne. In the vicinity of the project, it extends east-west as a three-lane arterial roadway posted at 40 mph east of SGH and 30 mph west of SGH.

**Wallick Road** – Wallick Road is a local connector extending east-west across SGH but not beyond the study area. It provides two travel lanes. Wallick Road is limited to 20 mph during school hours due to the presence of Afflerbach Elementary School west of SGH.

**Terry Ranch Road** – State Highway 223, Terry Ranch Road extends from SGH to meet I-25 approximately 5.5 miles to the east. It is a two-lane principal arterial, posted at 55 mph. Terry Ranch Road is the south boundary of the study area.

Overall, east-west roadways in the study area possess some continuity, particularly north of Wallick Road. North of College Drive, Jefferson Road, Allison Road and Prosser Road are spaced at regular ¼ mile intervals and extend between Walterscheid Boulevard and Avenue C and beyond. South of College Drive, Murray Road, Artesian Road, and Nation Road extend east-west at ¼ mile intervals but Murray and Artesian Roads are discontinuous across SGH. In the more rural portion of the corridor farther south, east-west roadways serve primarily as accesses to residential areas.

## 1.2 Current Traffic Conditions

### 1.2.1 Traffic Volumes

Current traffic volumes in the study area are depicted on **Figure 4**. Daily traffic counts were compiled from information available at the Cheyenne MPO www.plancheyenne.org website and AM and PM peak hour traffic counts were also made available by the Cheyenne MPO. Daily traffic counts were recorded between 2008 and 2011, with the majority taken in the Year 2009. Peak hour intersection traffic counts were conducted between 2007 and 2011. Traffic count information is included in **Appendix A**.

As shown, SGH carries a range of approximately 5,000 vehicles per day (vpd) at the south end of the study area, increasing to nearly 29,000 vpd near I-80. This reflects the greater development density in the north portion of the study area as well as the presence of Cheyenne's city center to the north. Walterscheid Boulevard and Avenue C carry much less traffic than SGH, at 7,000 vpd or less throughout. College Drive is the heaviest-traveled east-west roadway, carrying approximately 8,000 to 10,000 vpd.

As a major commercial corridor, SGH carries a higher than average percentage of heavy vehicles ranging from single-unit trucks to semi tractor-trailers. Based on vehicle classification data provided by the Cheyenne MPO, trucks comprise approximately two percent of the traffic stream along SGH. This value is comparable to that observed on many urban facilities in Cheyenne and other cities.

# Current Traffic Volumes & LOS

South Greeley Highway Corridor Conceptual Plan

**Figure 4**

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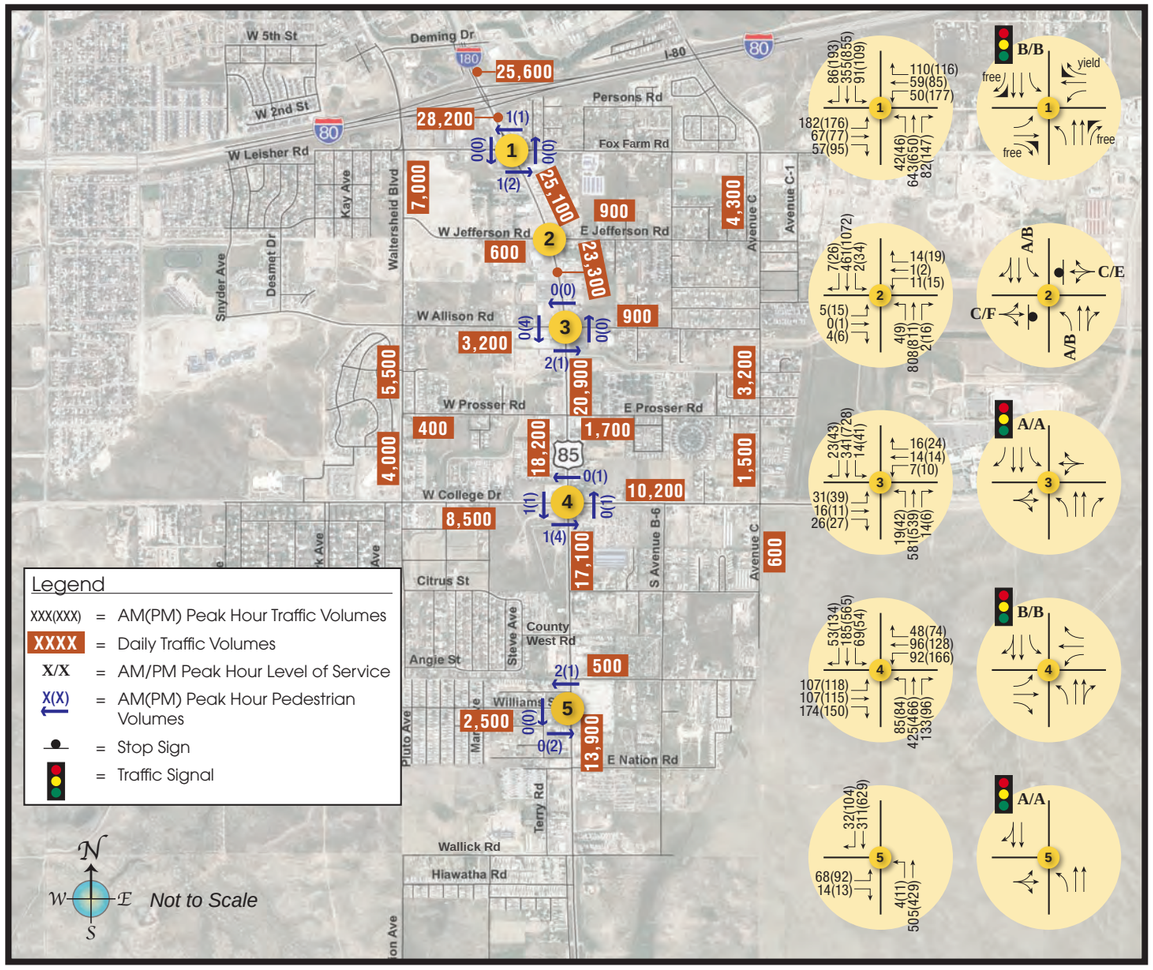


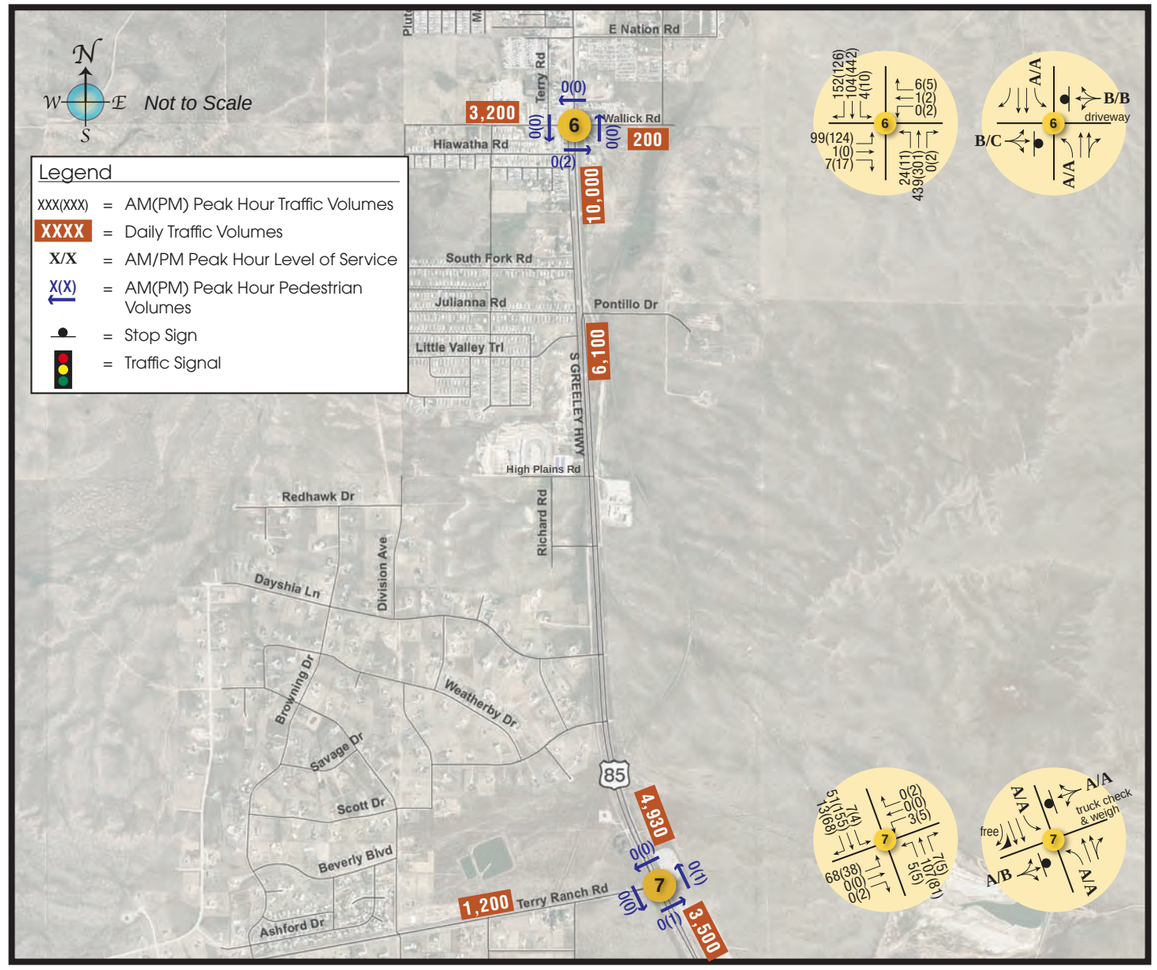

### 1.2.2 Traffic Operations

Traffic operations within the study area were evaluated according to techniques documented in the Highway Capacity Manual, (Transportation Research Board, 2000) using existing traffic volumes, intersection geometry and signal timing. The signal timing information at each of the existing signalized intersections was provided by the Wyoming Department of Transportation (WYDOT). Level of Service (LOS) is a qualitative measure of traffic operational conditions based on roadway capacity and vehicle delay. LOS is described by a letter designation ranging from A to F, with LOS A representing almost free-flow travel, while LOS F represents congested conditions. For signalized intersections, LOS is calculated for the entire intersection while LOS for unsignalized intersections is calculated for movements which must yield the right-of-way.

The agencies involved in the project each provide standards regarding acceptable intersection LOS. For traffic impact analyses, the City of Cheyenne and WYDOT both consider LOS C or better operations to be acceptable, and the City of Cheyenne further specifies a minimum standard of LOS E for left turns entering the major street at unsignalized intersections. Laramie County does not publish Level of Service guidelines.

The results of the intersection LOS analysis are depicted on **Figure 4**. As shown, all intersections and movements currently operate at LOS B or better during peak hours with the exception of eastbound movements entering SGH from Wallick Road, which operate at LOS C during the PM peak hour. Level of Service worksheets for existing conditions can be found in **Appendix B**.

A repeated comment received from project stakeholders, agency representatives and general public concerned the SGH / Jefferson Road intersection and the need to install a traffic signal to regulate movements and improve safety. In response, the project team conducted traffic counts and an operational evaluation of existing conditions at the intersection. As shown on **Figure 4**, movements entering SGH from Jefferson Road currently operate at LOS E/LOS F during peak hours, an unacceptable Level of Service.

One potential solution to the poor traffic operations observed at the SGH / Jefferson Road intersection is installation of a traffic signal. However, a cursory review of existing peak hour traffic counts relative to signalization warrants in the Manual on Uniform Traffic Control Devices (MUTCD) indicated that conditions at the intersection do not support the need for signalization.

## 1.3 Traffic Safety

The historic record was consulted to develop a picture of the reported crashes that occurred along SGH through the study area over the five year time period between 2006 and 2010. Of note, early project efforts analyzed the 5-year period between 2005 and 2009, but information for the Year 2010 later became available and the 5-year analysis period was shifted to 2006-2010 to more accurately reflect current conditions in the study area.

**Figure 5** depicts these crashes, each shown as a single dot on the map. Crashes are categorized as injury crashes or property damage only crashes. A total of 322 crashes were reported along SGH during this time, with 133 injury crashes and, and 189 Property Damage Only (PDO) crashes. Six crashes involved bicyclists and/or pedestrians.

# Crash Locations (2006 - 2010)

South Greeley Highway Corridor Conceptual Plan

**Figure 5**

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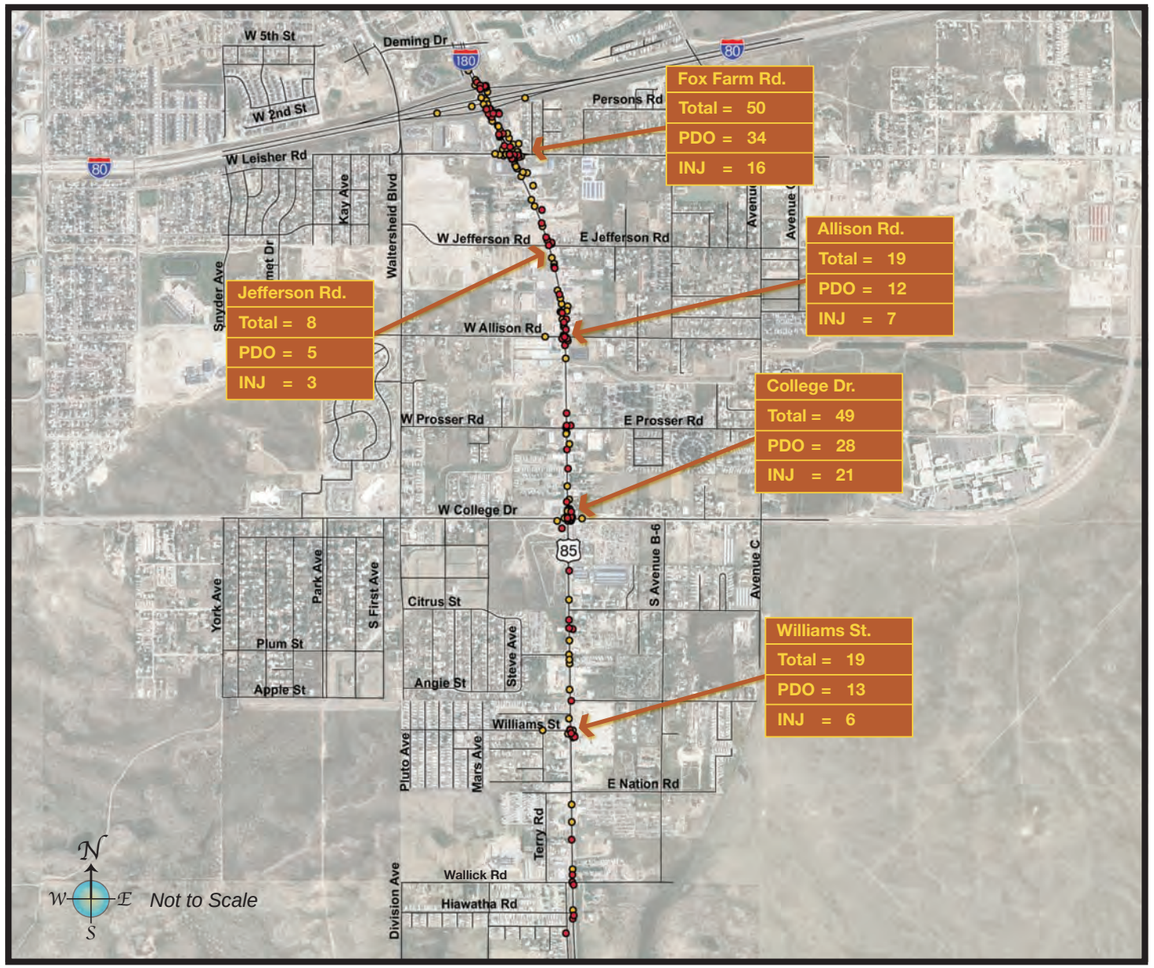


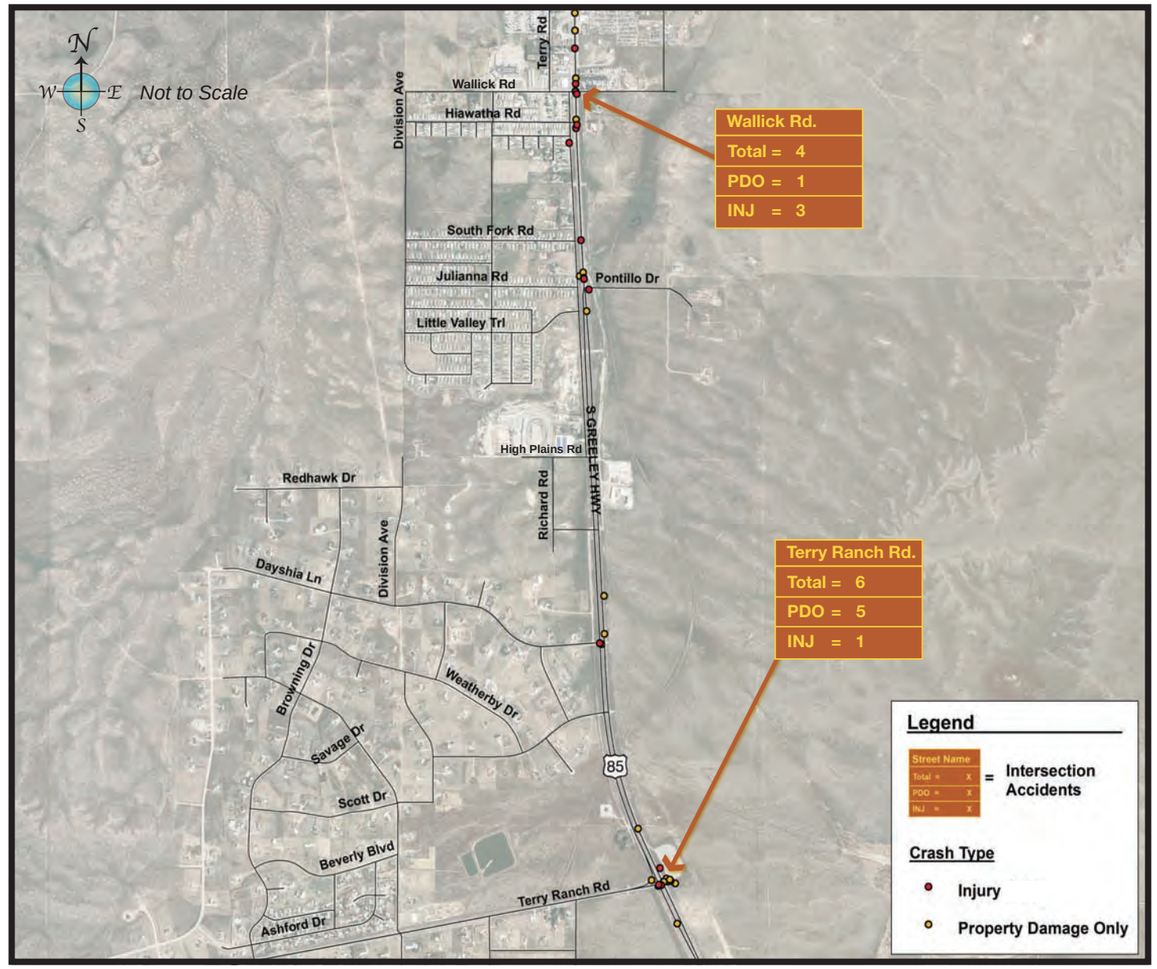

### 1.3.1 Intersection-Related Crashes

A significant portion (30 percent) of the reported crashes occurred at the intersection selected for operational analysis. **Table 2** provides a summary of these intersections and the crashes reported at each. In addition to the total number of crashes, a rate per Million Entering Vehicles (MEV) is provided. The crash rate provides a means of comparing intersection safety performance across the corridor and the region.

**Table 2. Major Intersection Related Crashes, 2006-2010**

| SGH Intersection | Property Damage Only | Injury Crashes | Total Crashes | Crash Rate per MEV |
|---|---|---|---|---|
| Fox Farm Road | 34 | 16 | 50 | 0.94 |
| Jefferson Road | 5 | 3 | 8 | 0.22 |
| Allison Road | 12 | 7 | 19 | 0.68 |
| College Drive | 28 | 21 | 49 | 1.25 |
| Williams Street | 13 | 6 | 19 | 0.81 |
| Wallick Road | 1 | 3 | 4 | 0.21 |
| Terry Ranch Road | 5 | 1 | 6 | 0.90 |

As shown, the top crash rate intersection found between 2006 and 2010 was the College Drive intersection at 1.25 crashes/MEV. This intersection was also highlighted in the Cheyenne MPO's *2010 Annual Crash Report for the Cheyenne Urban Area* as the intersection with the 5$^{th}$highest crash rate in the Cheyenne Urban Area for 2010. A preliminary review of the crash history at the SGH/College Drive intersection revealed that a significant percentage of the crashes involved northbound and southbound left-turning traffic. The signal phasing at this intersection allows for protected/permissive left turns, the permissive portion of which can lead to heightened crash potential. Similar issues were observed in the reported crash history for the intersection of SGH with Fox Farm Road, where 14 of the 50 recorded crashes involved left turn conflicts. However, no such crashes occurred during the Year 2010, indicating that conditions are improving. The remaining analyzed intersections shown in **Table 2** demonstrated no clear crash patterns.

### 1.3.2 Crashes between Major Intersections

As shown on **Figure 5**, numerous crashes were reported between the major intersections analyzed in **Table 2**. It is evident that such crashes increase with traffic volumes, as the north portion of the corridor demonstrates the most crashes. To capture and compare these crashes, SGH between I-80 and Williams Street was evaluated to identify crash rates per million vehicle-miles traveled (MVMT). These rates provide information about the relative concentration of crashes at locations along the SGH corridor. **Table 3** summarizes crash rates between major intersections.

**Table 3. South Greeley Highway – Crash Rates between Intersections**

| SGH Section | Crashes, 2006-2010 | Crashes per MVMT |
|---|---|---|
| I-80 to Fox Farm Road | 22 | 3.1 |
| Fox Farm Road to Jefferson Road | 13 | 1.0 |
| Jefferson Road to Allison Road | 20 | 1.8 |
| Allison Road to Prosser Road | 10 | 1.1 |
| Prosser Road to College Drive | 13 | 1.6 |
| College Drive to Williams Street | 17 | 0.9 |

As shown, the highest concentration of crashes occurred between I-80 and Fox Farm Road, a busy section of SGH with a number of closely spaced property accesses. An elevated concentration of crashes was also observed between Jefferson and Allison Roads, another location where numerous property accesses multiply traffic conflicts. Within this section, the area immediately north of Allison Road up to the main access to the Safeway store showed a particularly high frequency of crashes. One possible explanation for this record is the occurrence of traffic conflicts in the existing Two-way Left Turn Lane (TWLTL). A condition of interlocking left turns is observed in the section between two busy properties (a grocery store and a popular restaurant), confusing drivers and increasing the potential for head-on and other collision types. Interlocking left turns are also observed with some frequency throughout the corridor.

### 1.3.3 Bicycle / Pedestrian Crashes

A total of six crashes involving bicyclists and pedestrians were reported along SGH between 2006 and 2010, scattered throughout the corridor. No observable pattern emerged from a review of these crash locations.

## *1.4 Transit and Non-motorized Travel Modes*

The SGH accommodates a healthy demand for travel by modes other than auto, including transit, bicycling and walking. The current state of travel by these “alternative” modes is described as follows.

### 1.4.1 Transit

Currently, the Cheyenne Transit Program (CTP) operates a fixed-route and ADA complementary paratransit services throughout the City of Cheyenne. Within the study area, CTP’s South Route fixed route service extends along SGH as far south as Wallick Road. As shown on **Figure 6** and listed in **Table 4**, the South Route includes 5 stops in each direction along SGH. The South Route stops at each of these stop locations one time per hour. The CTP’s fixed route and paratransit services operate Monday through Friday, 6:00 a.m. to 7:00 p.m. and Saturdays 10:00 a.m. to 5:00 p.m.

# Existing Transit and Non-Motorized Network

South Greeley Highway Corridor Conceptual Plan **Figure 6**

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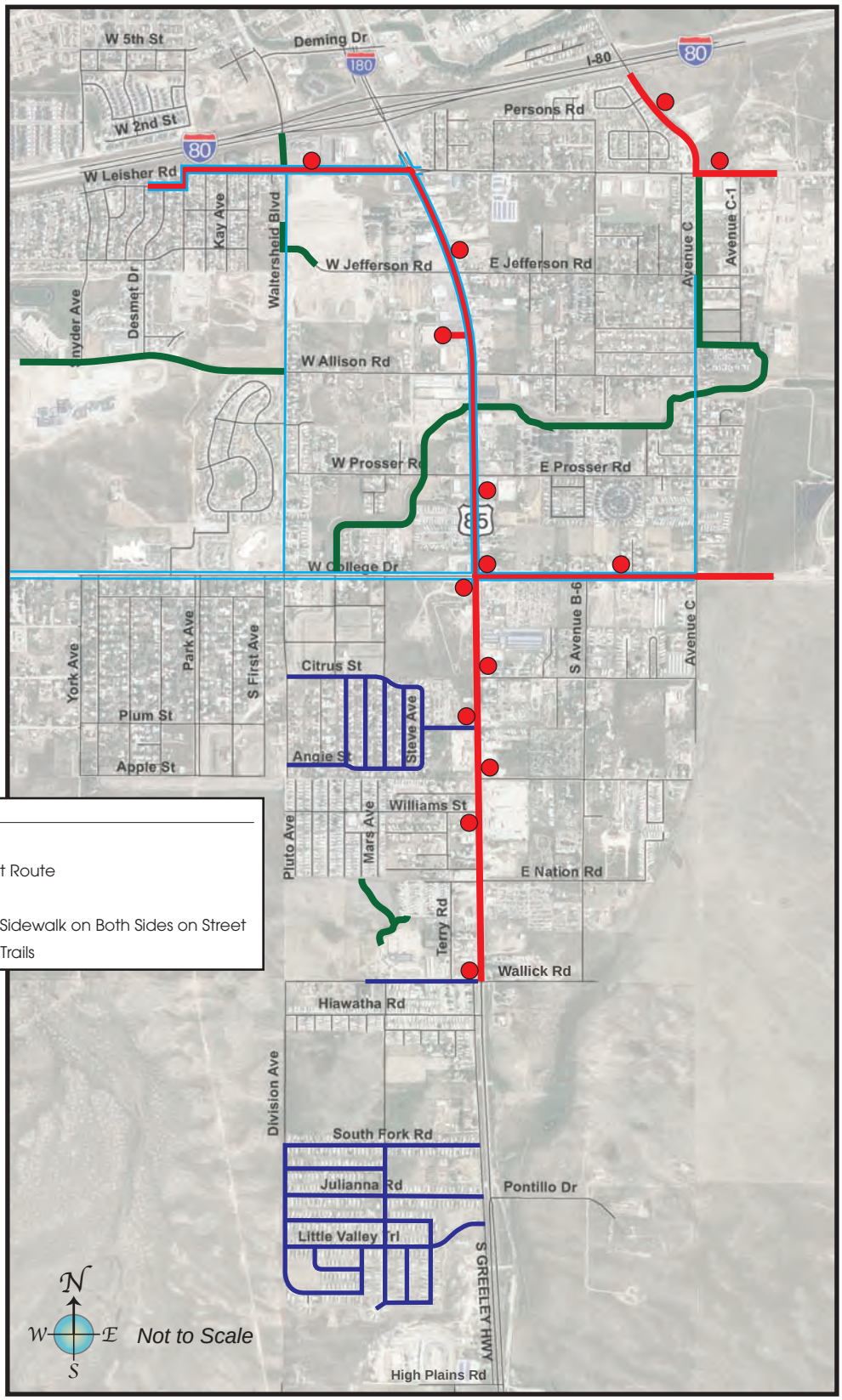


Legend

- = Transit Stop
- = South Transit Route
- = Sidewalk
- = Residential Sidewalk on Both Sides on Street
- = Greenway/Trails

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**Table 4. Transit Stops along South Greeley Highway**

| Southbound Direction | Northbound Direction |
|---|---|
| Safeway store | Williams Street |
| South of College Drive | Murray Road |
| Country West Road | College Drive |
| Williams Street | Prosser Road |
| Wallick Road | n/o Jefferson Road |

The CTP has completed recent upgrades to a number of bus stops, including a shelter at the northbound Prosser Road stop. Most of the existing stops include benches for waiting riders.

### 1.4.2 Bicycle Transportation

The Cheyenne Greenway forms the backbone of the bicycle network in the study area, extending east-west along the Allison Draw, which crosses beneath SGH north of Allison Road. As shown, the south portion of the study area provides minimal off-street bicycle paths, with only a short shared path in the vicinity of Afflerbach Elementary School along Wallick Road.

Bicyclists traveling on street within the study area encounter a variety of conditions. The project team conducted a Bicycle Level of Service analysis using the *2010 Highway Capacity Manual* (HCM) methodology. The Bicycle LOS of a given facility is calculated based on the traffic volume in the adjacent travel lane, speed of adjacent traffic, shoulder width and the percentage of heavy vehicles in the traffic stream. The methodology provides a qualitative assessment of bicycle conditions. Based on a qualitative survey of conditions experienced by bicyclists, LOS A represents ideal conditions for cyclists and LOS F represents poor conditions. **Table 5** provides the results of existing bicycle LOS analyses along SGH.

**Table 5. South Greeley Highway Bicycle Level of Service**

| Section | Bicycle LOS |
|---|---|
| I-80 to College Drive | C |
| College Drive to Wallick Road | B |
| Wallick Road to Julianna Road | F |
| Julianna Road to Terry Ranch Road | E |

As shown, bicycle LOS varies from acceptable conditions in the northern portion of the study area to poor conditions in the higher-speed south portion. Factors that account for better bicycle travel north include wide shoulders and slower travel speeds.

The bicycle LOS calculations provide a general appraisal of conditions for bicyclists. However, important details of the corridor are not reflected in the results shown in **Table 5**. For example, the presence of multiple closely spaced property accesses is not accounted for in the LOS calculation, and this condition serves to worsen travel for bicyclists in the north portion of the corridor.

### 1.4.3 Pedestrian Travel

Similar to the bicycle analysis, a methodology for calculating pedestrian LOS is provided in the 2010 HCM. Pedestrian LOS is calculated based primarily on traffic volumes, travel speeds and width of sidewalk. **Table 6** depicts pedestrian LOS results along SGH.

**Table 6. South Greeley Highway – Pedestrian Level of Service**

| Segment | Pedestrian LOS |
|---|---|
| I-80 to College Drive | E |
| College Drive to Wallick Road | F |
| Wallick Road to Julianna Road | F |
| Julianna Road to Terry Ranch Road | E |

As shown, pedestrian travel conditions are currently rated poor along SGH throughout the study area. Though conditions are poor north of College Drive, the presence of a curb and sidewalk make conditions better than south of College, where no sidewalk is provided. It is important to consider this condition in addition to the LOS results when evaluating potential pedestrian improvements along SGH.

The following photos depict signalized pedestrian crossing conditions at the SGH/Allison Road intersection. **Photo 1** depicts a situation in which the pedestrian-actuation button is difficult to reach from the sidewalk, particularly for impaired users. This situation can cause minimal use of the pedestrian button and lead to more pedestrians choosing to make the crossing without the benefit of sufficient protected crossing time.

**Photo 1 -Pedestrian push button out of reach from sidewalk, particularly for physically impaired users**

**Photo 2** depicts a utility pole currently preventing a pedestrian from seeing the walk indication on the pedestrian signal head. This utility conflict could cause a pedestrian to attempt to cross at the wrong time or simply not use the pedestrian button due to the invisibility of the pedestrian signal head.

Both of these conditions observed at the SGH/Allison Road intersection make crossing SGH more difficult and increase the potential for pedestrian crashes.

**Photo 2 - Utility pole blocking view of "Walk" signal**

## 1.5 Corridor Design Elements

The physical characteristics of the corridor vary widely across the study area, adapting to the changing context. To capture these conditions, the Snapshot phase includes a review of the configuration of SGH itself within the right-of-way. In addition, corridor drainage was highlighted for review in the plan due to a number of current concerns.

### 1.5.1 South Greeley Highway Segments

The South Greeley Highway possesses a variety of physical characteristics as it traverses the context of the study area. Such characteristics include right-of-way width, number of private accesses, posted speed, median type, and sidewalk provision. **Table 7** provides a summary of physical characteristics of the South Greeley Highway.

**Table 7. Characteristics of South Greeley Highway**

| Portion of SGH | Right-of-way width (feet) | # of Private Accesses | | Posted Speed (mph) | Median Type | Sidewalk |
|---|---|---|---|---|---|---|
| | | West side | East side | | | |
| I-80 to Fox Farm Road | 150 | 4 | 3 | 40 | Raised Median | limited |
| Fox Farm Road to College Drive | 100 | 42 | 64 | 40 | Painted Median | 5' attached |
| College Drive to Wallick Road | 100 | 19 | 20 | 50 | Painted Median | None |
| Wallick Road to Julianna Road | 250 | 2 | 1 | 50 | Grassed Median | None |
| Julianna Road to Terry Ranch Road | 250 | 1 | 1 | 65 | Grassed Median | None |

As shown in **Table 7**, the attached, 5 foot sidewalks along SGH between Fox Farm Road and College Drive are the only continuous sidewalks along the highway. The posted speed increases to 65 mph farther south as the right-of-way (ROW) broadens and a center, grassed median is provided. There is a 100' ROW section in the middle of the study area with broader ROW to the north and south. A painted median is provided from Fox Farm Road to Wallick Road, allowing for left turn storage in the more heavily developed parts of the study area.

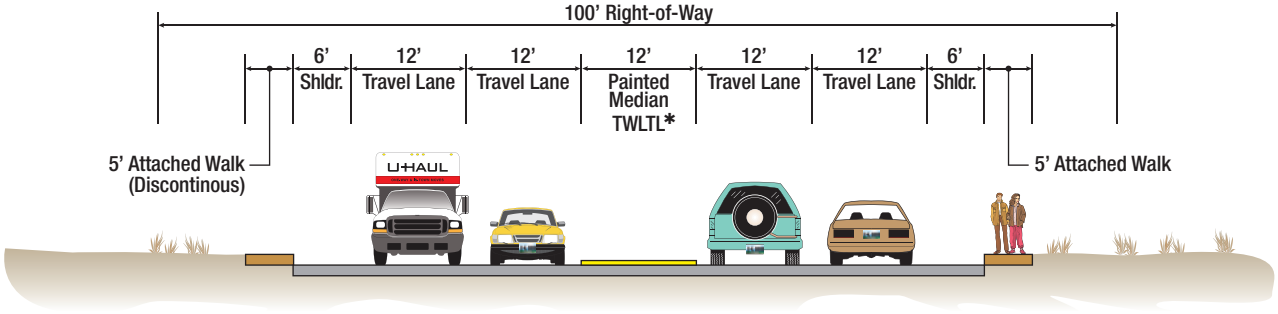
**Figure 7** depicts current typical sections for SGH within the study area.

# Existing Typical Sections

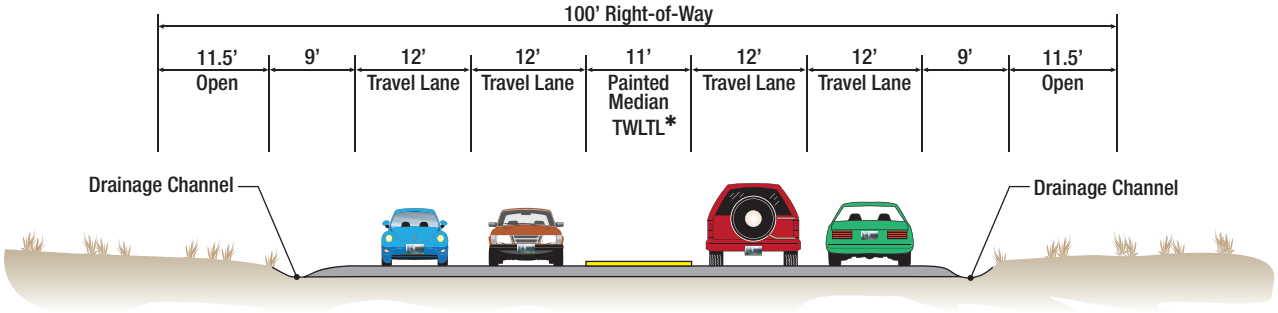
South Greeley Highway Corridor Conceptual Plan **Figure 7**

**DRAFT**

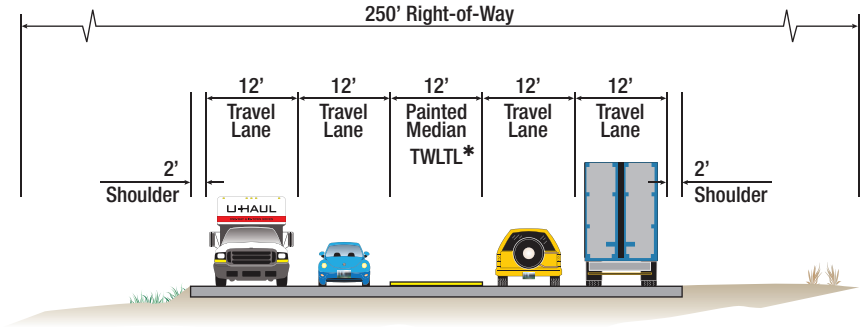
## Fox Farm Road to College Drive



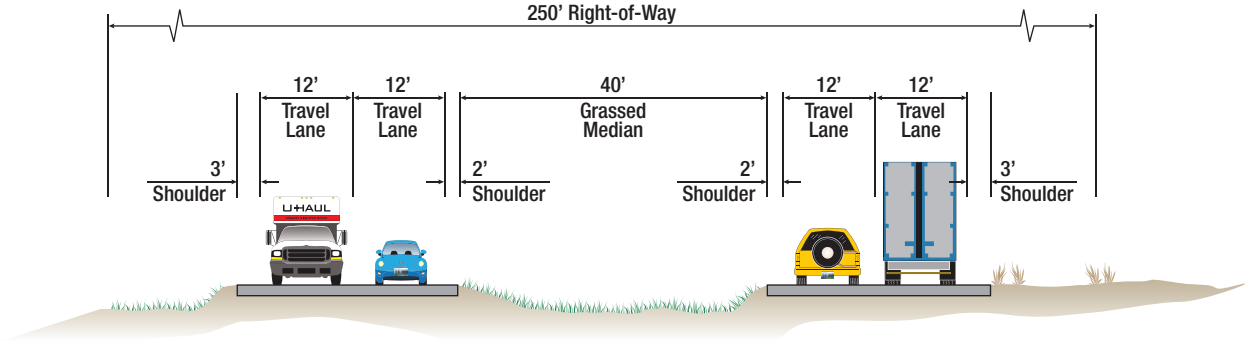

## College Drive to Wallick Road




## Wallick Road to Julianna Road




## Julianna Road to Terry Ranch Road




* Two Way Left Turn Lane

### 1.5.2 Drainage

The main drainage channel in the study area is Allison Draw, located south of Allison Road. In general, Allison Draw is channelized within the study area, flowing north and east. The south fork of Allison Draw generally flows north and east in a less defined overland flow path. The Allison Draw channel is adequately sized to handle a 100-year storm without overtopping, as indicated by the current FEMA floodplain map and visual observations.

Large storms regularly occur along the corridor. In general, storms seem to drain away from the corridor well; however the storm sewer system does not appear to be efficient. The majority of the existing major drainage problems occur along the corridor from College Drive to Wallick Road. A summary of existing drainage conditions is provided below:

**Allison Draw to College Drive** – Storm sewer collects water from the highway and does not appear to possess reserve capacity for additional flows. Drainage from the west side of SGH corridor flows to Allison Draw, and does not affect the highway.

**College Drive to Murray Road** – There is no defined storm sewer system. All drainage is conveyed in concrete ditches located in the roadway shoulder. A few sump areas, or drainage collection points, exist west of the Murray Road intersection.

**Murray Road to Artesian Road**– The existing elliptical pipe system is partially plugged. The existing collection system is located on the west side of the corridor, with no ability to convey water to the east. Thus, there is an existing "swampland" east of SGH, at South Avenue B-6 north of Artesian Road.

**Artesian Road to Nation Way**– Several sump areas exist on the west side of the corridor.

**Nation Way to Wallick Road** – Existing homes and businesses adjacent to SGH are located well below the existing roadway, creating a dam effect that causes storm drainage to accumulate. Drainage pipes are crushed east of SGH. This area would be very difficult to redevelop at its current elevation.

**Wallick Road** – Many drainage pathways converge at the intersection, creating the potential for stormwater accumulation.

**Photo 3. - Highway elevated above adjacent developed land**

**High Plains Road**– Existing culverts are undersized to handle increased development to the west of SGH.

In summary, the portion of the study area south of College Drive possesses a number of drainage deficiencies that cause problems during storm events.

## 1.6 Land Use

The corridor currently includes large areas of residential development and commercial/light industrial development, but few services, parks and public facilities. **Figure 8** displays the current zoning in the study area. As shown, community businesses are clustered close to SGH north of College Drive with residential development farther from the highway. Between College Drive and Wallick Road, more industrial-type commercial uses border SGH and residential development continues in a pattern similar to north of College Drive. The corridor transitions to a mostly rural context south of Wallick, where large-lot residences and public/agricultural lands occupy much of the land area.

# Existing Zoning and Land use

## South Greeley Highway Corridor Conceptual Plan — Figure 8

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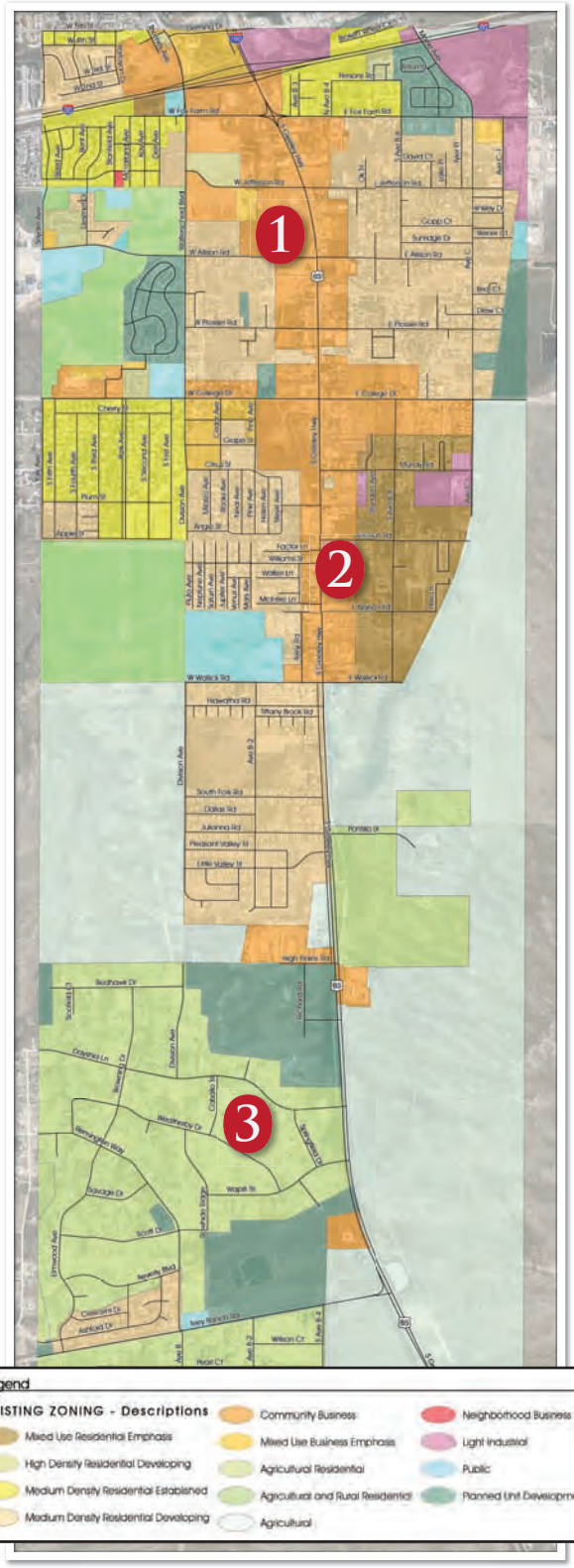
### Existing Zoning





1


2


3

N
W E
S

Not to Scale

## 1.7 Aesthetics

Beautification of the South Cheyenne area and South Greeley Highway in particular was discussed during the collaborative process used to create the *South Cheyenne Community Assessment* in April of 2009. It was stated in the assessment that the South Greeley Highway does not present a positive image for the community, and the Assessment placed a high priority on "cleaning up" the corridor and noted the need for a consistent visual theme to unify the area.

A review of corridor aesthetics revealed some positive trends toward beautifying the corridor. Recent redevelopment projects north of College Avenue have included landscape features, and flower boxes located at major intersections help to enhance the appearance of SGH. However, corridor aesthetic features vary in nature and extent.

**Table 8** provides an overview of existing aesthetic features along the corridor.

**Table 8. Summary of Aesthetic Features**

| Category | Typical application | Current Conditions |
|---|---|---|
| **Streetscape** |  | ▪ Corner flower boxes unify intersections in north part of corridor (**see photo**)<br>▪ Streetscape is functional with minimal green space<br>▪ Street furniture limited to bus benches<br>▪ Minimal lighting along corridor south of College Drive |
| **Signs** |  | ▪ Small signs welcome visitors to Cheyenne and South Cheyenne (**see photo**)<br>▪ Inconsistent theme and look of signs<br>▪ Some signs in disrepair<br>▪ Distinctive property signs in north portion of corridor |

| Category | Typical application | Current Conditions |
|---|---|---|
| **Upkeep/ cleanliness** |  | ▪ Inconsistent level of upkeep; some properties better than others (**See photo**) |
| **Property Enhancements** |  | ▪ Recent projects have incorporated sustainable landscape features (**see photo**)<br>▪ Not all businesses able to invest in property enhancements |

## 1.8 Future Conditions

In addition to reviewing existing conditions, the Snapshot phase provided a look at anticipated future conditions in the corridor in order to identify appropriate long term planning strategies to be included in the plan. The future evaluation focused on future land use and roadway network, traffic volume forecasts and traffic operations.

### 1.8.1 Land Use and Roadway Network

The PlanCheyenne process completed by the Cheyenne MPO in 2006 envisioned the future roadway network and land use throughout the Cheyenne Metropolitan area, including South Cheyenne. The plan anticipated significant growth in South Cheyenne, particularly new residential development in the area between I-25 and South Greeley Highway. In the study area, commercial uses are expected to intensify adjacent to the highway. New mixed-use commercial activity centers are identified at the north end of the study area, College Drive and High Plains Road.

Extensions of Walterscheid Boulevard, Avenue C, Wallick Road and High Plains Road were identified in PlanCheyenne to complete the roadway network to accommodate future growth. Widening of portions of College Drive and South Greeley Highway is also anticipated to help provide capacity for growth.

This vision of PlanCheyenne as it applies to the study area is pictured on **Figure 9**.

# Future PlanCheyenne Land Use and Roadway Network

## South Greeley Highway Corridor Conceptual Plan — Figure 9

2030 PlanCheyenne

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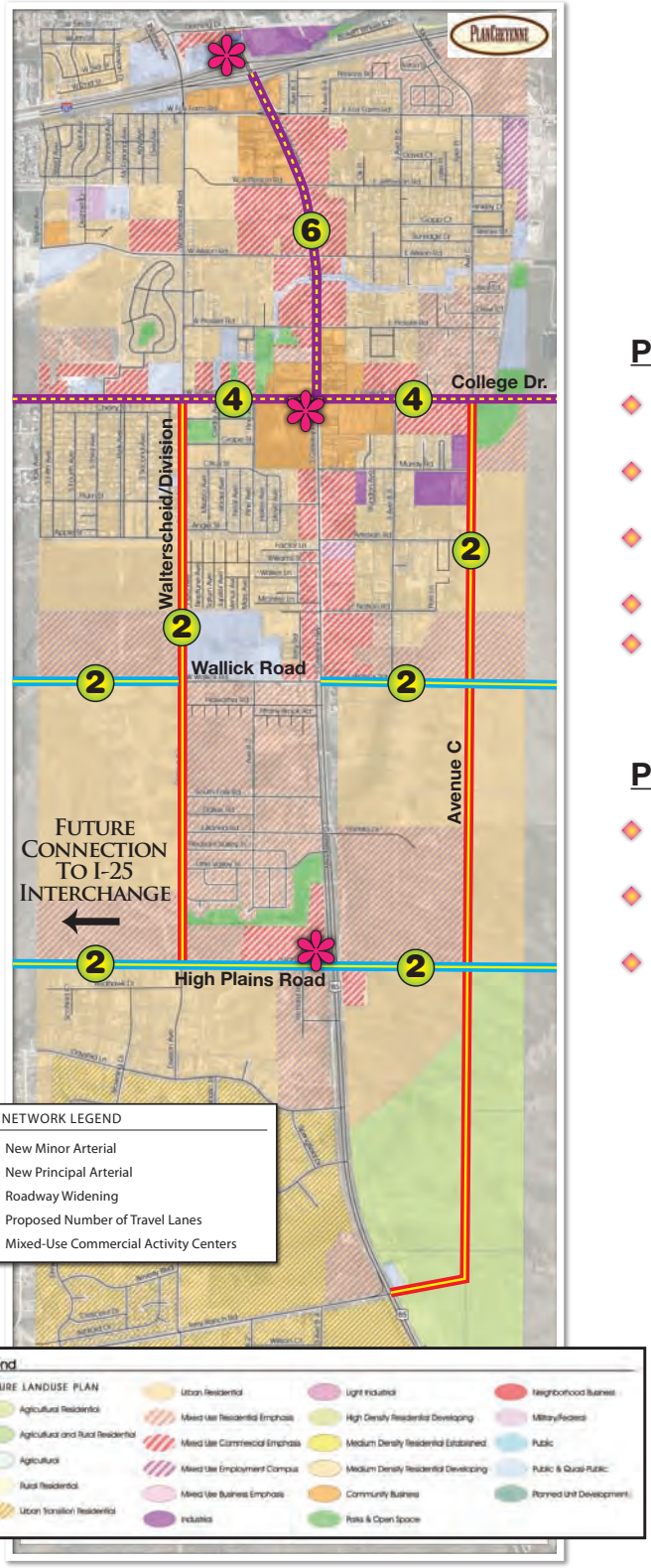


### PlanCheyenne Roadway Network:

- Extend Speedway/High Plains Road east to connect to I-25 Interchange
- Extend Wallick Road east and west as principal arterial from study area
- Extend Walterscheid/Division and Avenue C farther south as 2-lane minor arterials
- Widen College Drive to 4 lanes
- Widen South Greeley Highway to 6 lanes north of College Drive

### PlanCheyenne Land Use:

- Identifies mixed-use commercial activity centers at I-80, College Drive and High Plains Road intersections
- Zoning changes needed to facilitate commercial focus near the highway
- Residential growth is anticipated farther from South Greeley Highway

### 1.8.2 Traffic Forecasts

The PlanCheyenne effort included development of a regional travel demand model for the Cheyenne area. The model, maintained by WYDOT in the TransCad software platform, provides Year 2030 traffic forecasts based on the land use assumptions included in PlanCheyenne. The Cheyenne MPO requested that traffic analyses in this corridor plan be based upon forecasted Year 2035 traffic conditions, an approximate 23-year planning horizon relative to current conditions.

Traffic forecasts were developed for the corridor using a version of the travel demand model, updated to incorporate the Swan Ranch development being constructed near I-25 and High Plains Road. The development includes industrial, commercial and residential uses, and is expected to bring significant growth to the South Cheyenne area. In addition to the modeling effort, the project team reviewed historic traffic growth along the South Greeley Highway, finding that past growth in traffic has varied between 2 percent and 4 percent per year.

To account for a range of future growth potential and its effect on the corridor, the steering committee determined that three future growth scenarios should be addressed in the plan; 2 percent annual growth, 4 percent annual growth, and the traffic volume forecasts included in the PlanCheyenne regional model. **Figure 10** presents daily traffic volume growth for portions of the SGH corridor. The travel demand model forecasts lie between 2 percent and 4 percent annual growth except for the section of SGH between I-80 and College Drive, where model growth is slightly below 2 percent.

As previously described, SGH currently provides four travel lanes throughout the corridor. An approximate daily traffic volume threshold for considering widening a roadway from 4 to 6 travel lanes is 35,000 vehicles per day (vpd). As shown, traffic forecasts north of Wallick Road would reach approximately 35,000 vpd between roughly the Year 2025 and Year 2035, depending on the growth rate experienced. South of Wallick Road, it is anticipated that 4 travel lanes would remain adequate along SGH into the longer term future.

### 1.8.3 Traffic Operations

An intersection traffic operations sensitivity analysis was performed to evaluate the impact of future growth on peak hour intersection traffic operations. The 2 percent and 4 percent annual growth scenarios were applied to existing intersection turning movements to forecast Year 2035 AM and PM peak hour traffic volumes at six study intersections. The results of the sensitivity test are shown on **Figure 11**. As shown, all intersections would operate at LOS C or better during peak hours by the Year 2035 assuming 2 percent annual growth, with the exception of the PM peak hour at the SGH/Fox Farm Road intersection.

Additional operational challenges are revealed by the more aggressive 4 percent growth scenario, as intersection improvements and widening of SGH would be needed to provide acceptable traffic operations. Potential improvements triggered by 4 percent growth are shown in red on **Figure 11** and listed as follows:

- Additional turn lanes are needed along all approaches to the SGH / Fox Farm Road intersection

# Daily Traffic Forecasts

## South Greeley Highway Corridor Conceptual Plan — Figure 10

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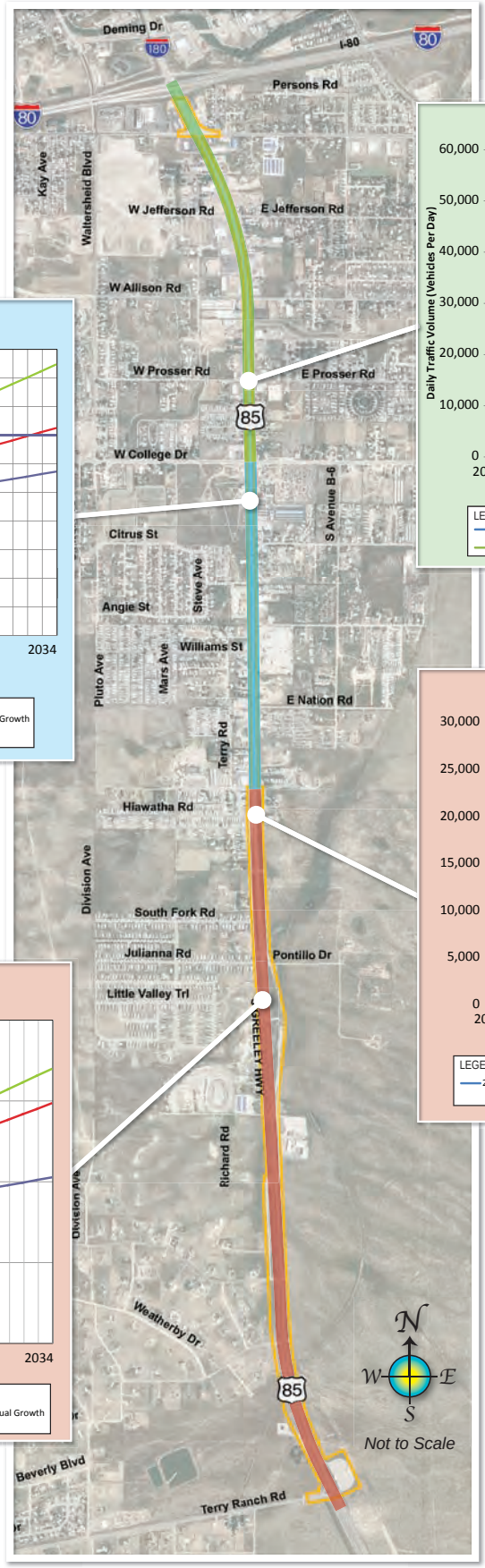
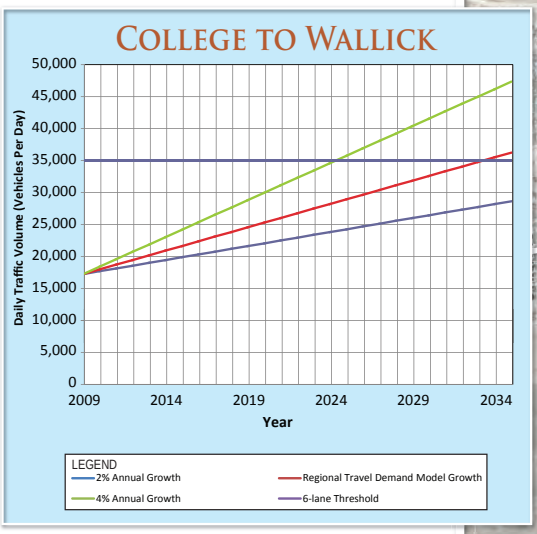
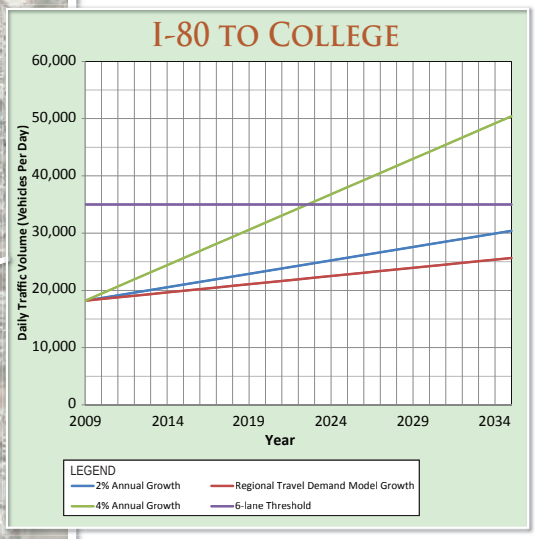


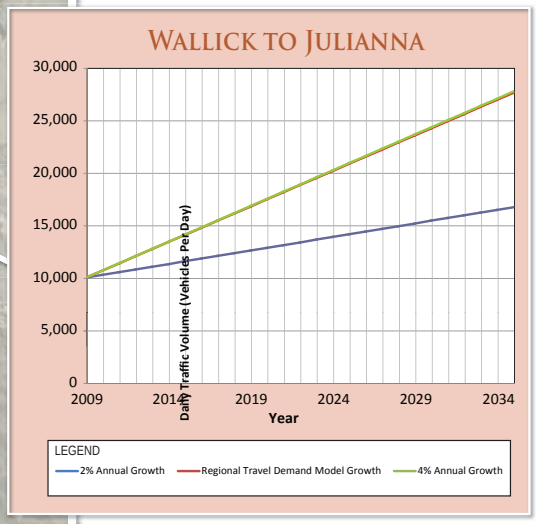

### College to Wallick



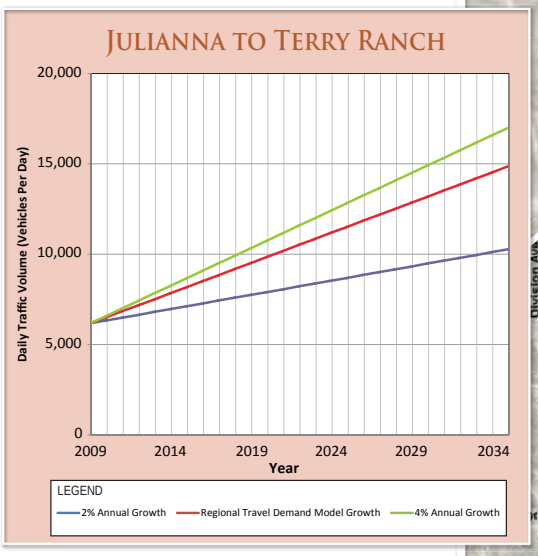

### I-80 to College




### Wallick to Julianna




### Julianna to Terry Ranch




### SUMMARY:

- *Widening to 6 lanes is a future possibility north of Wallick Road, but most growth scenarios show no need until the Year 2035*
- *No widening needed south of Wallick Road*

# Sensitivity Analysis - Future Improvements

## South Greeley Highway Corridor Conceptual Plan — Figure 11

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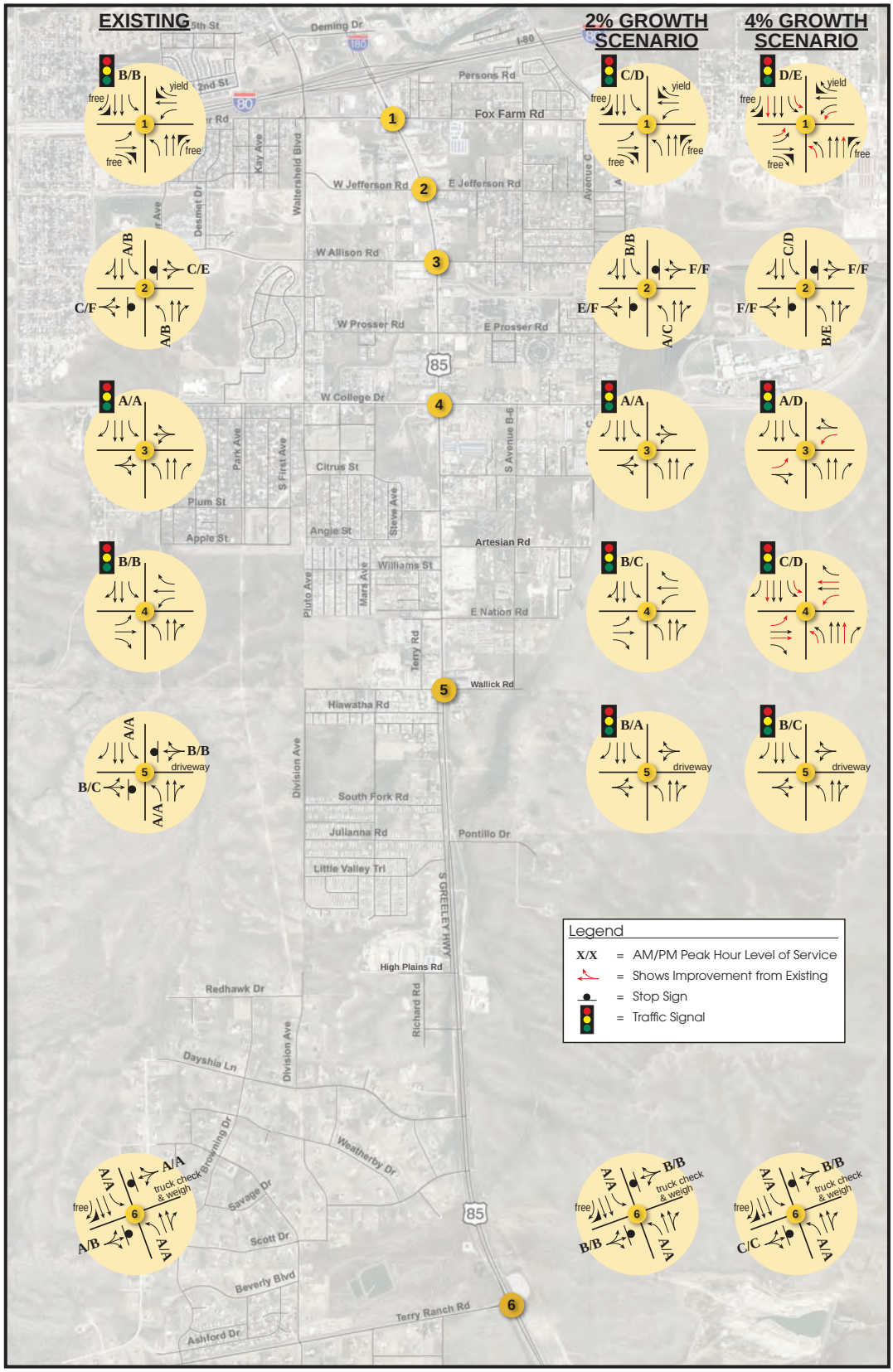

- Widening to six through lanes along SGH through the Fox Farm Road and College Drive intersections
- Widening to four through lanes along College Drive through its intersection with SGH
- Providing exclusive left-turn auxiliary lanes along eastbound and westbound Allison Road approaches to SGH

The intersection of SGH with Jefferson Road is currently unsignalized, and LOS conditions are expected to continue to deteriorate with future traffic growth. Year 2035 conditions at the intersection are not anticipated to exceed signal warrant thresholds at an annual growth rate of 2 percent. However, if traffic volumes grow at a rate of 4 percent per year, Year 2035 forecasted traffic levels would be sufficient to warrant a signal at the Jefferson Road intersection.

The SGH/Jefferson Road intersection is located ¼ mile away from the nearest adjacent signalized intersections, at Fox Farm Road and Allison Road. The WYDOT Access Manual specifies a minimum spacing of ½ mile between signalized intersections for Principal Arterials such as SGH. The project team conducted a preliminary analysis progression along the SGH corridor to understand the impact of substandard signal spacing on corridor progression, and found that the addition of a signal at Jefferson Road would not degrade progression levels. Further progression analyses have been requested by WYDOT Staff to better understand the implications of signalizing Jefferson Road on the SGH corridor, including analyses that incorporate the SGH/I-80 interchange and provide a range of different signal cycle length assumptions.

The intersection of SGH with Prosser Road was mentioned in the public involvement process as a potential future signalized intersection. Similar to the Jefferson Road location, a signal at Prosser Road would introduce substandard spacing between signals and require additional analysis and coordination with WYDOT prior to further consideration of signalization.

## 1.9 Corridor Segments and Key Planning Considerations

Based on the findings of the Snapshot phase, corridor conditions may be communicated by grouping similar portions of the corridor into three main segments. This segmentation enables the plan to accurately reflect the unique context of the each area. The segments are listed as follows and will be used in later sections of this report.

**Segment 1: I-80 to College Drive– 1.2 miles**: Segment 1 is the most urbanized portion of the corridor, possessing numerous commercial businesses close to the highway. It is posted at a speed limit of 40 mph. The ROW width is 100 feet for most of the segment, and an attached 5-foot sidewalk is provided on both sides of the highway.

**Segment 2: College Drive to Wallick Road –1.0 mile:** Segment 2 introduces more residential land uses and the posted speed increases to 50 mph. The typical section is rural in nature with side drainage ditches. No sidewalk is provided along SGH.

**Segment 3: Wallick Road to Terry Ranch Road – 2.2 miles**: The right-of-way width broadens to 250 feet south of Wallick Road, and a frontage road is provided along the west side of SGH. The posted speed is 65 mph for the majority of Segment 3.

In summary of the Snapshot phase, key planning considerations for Segments 1, 2 and 3 are provided on **Figures 12, 13** and **14.**

# Snapshot of Segment 1: I-80 to College Drive

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South Greeley Highway Corridor Conceptual Plan **Figure 12**


## Key Considerations:

- Redevelopment Opportunities
- Pedestrian and Bicycle Travel
- Future Intersection Operations
- Traffic Safety Concerns At and Between Intersections
- Closely Spaced Accesses Throughout Segment (113 Private Accesses)
- Gaps in Roadway Network Connectivity
- Lack of Streetscape Amenities
- Future Roadway Widening needs

# Snapshot of Segment 2: College Drive to Wallick Road

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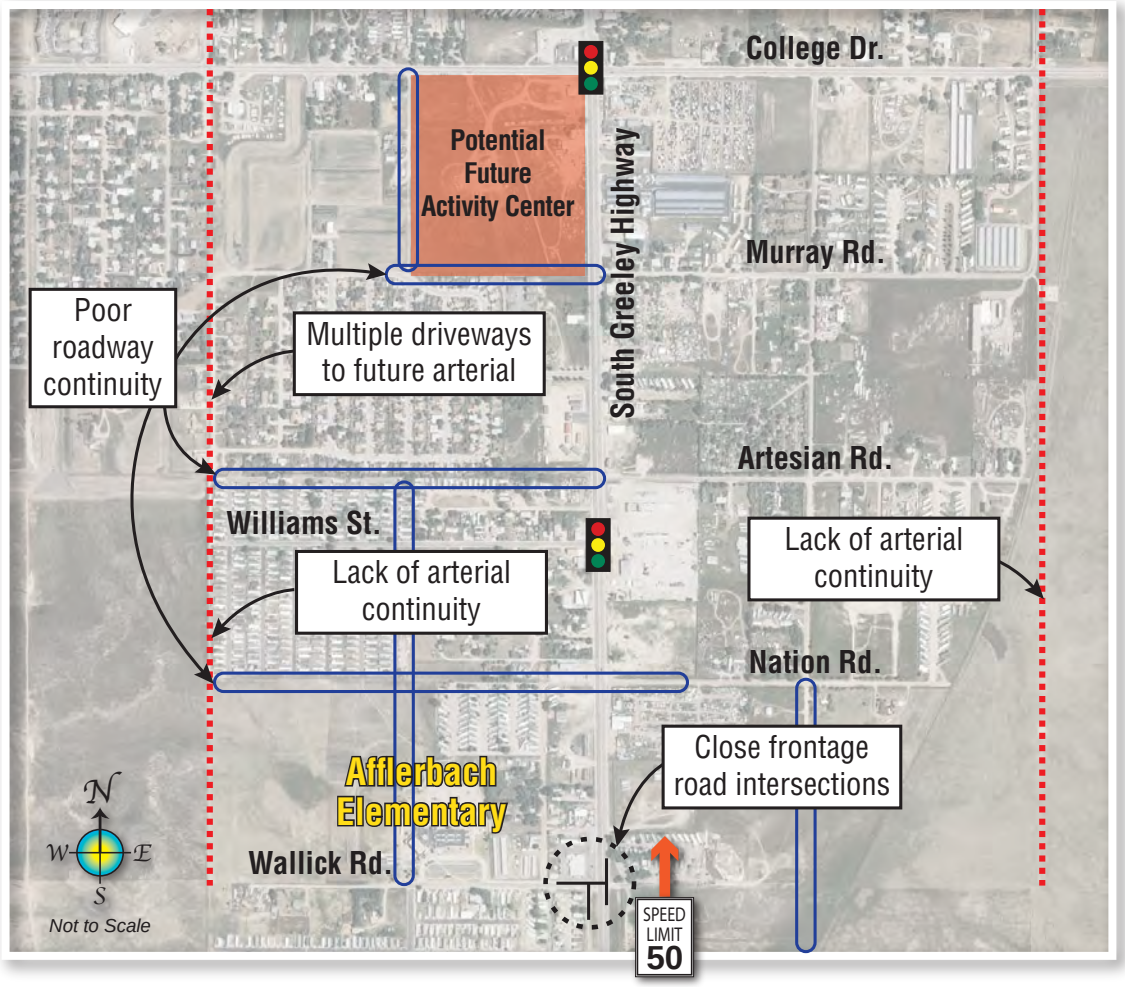
South Greeley Highway Corridor Conceptual Plan **Figure 13**




## Key Considerations:

- Gaps in Roadway Network Connectivity
- Difficult Pedestrian Crossing/School Proximity
- Potential Future Activity Center at College Drive
- Appropriate Travel Speeds
- No Sidewalks
- Inconsistent Aesthetics
- Drainage Needs
- Identifying Future Traffic Signal Locations

# Snapshot of Segment 3: Wallick Road to Terry Ranch Road



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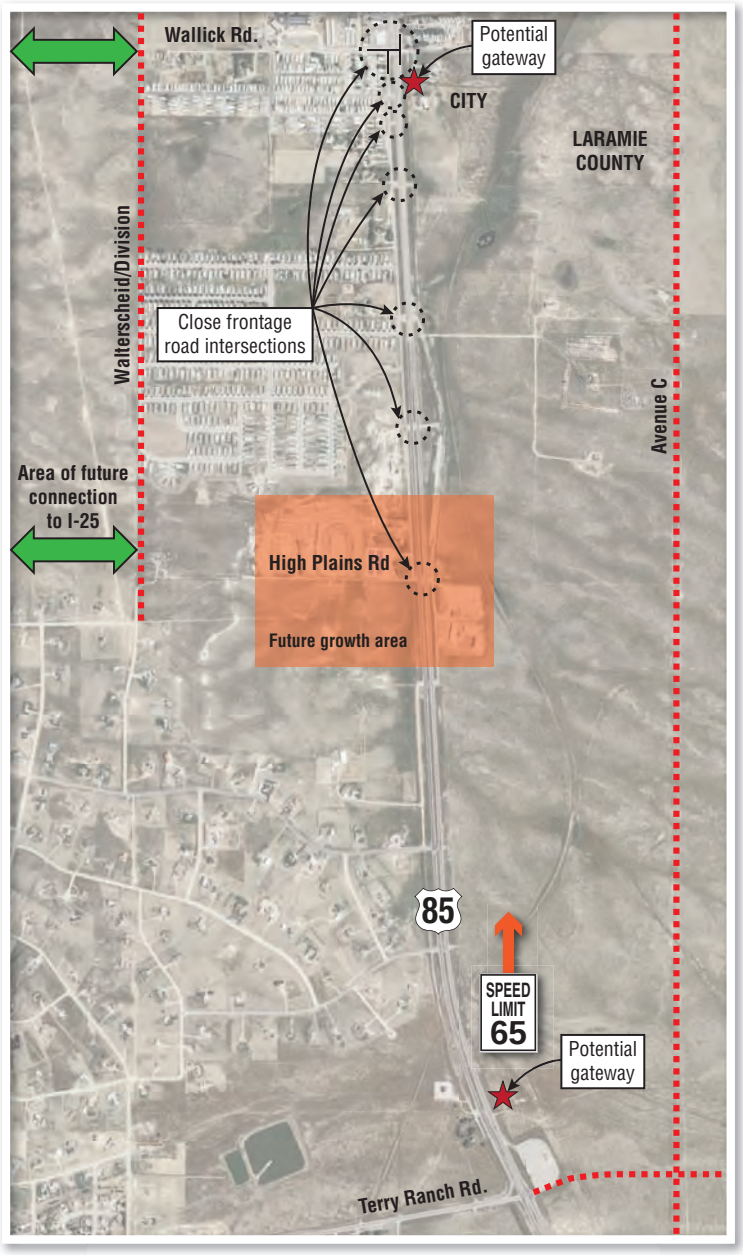



## Key Considerations:

- Frontage Road Configuration
- Future Development/ Redevelopment
- Gateway Feature
- Future Roadway Extensions
- Drainage Needs
- No Sidewalks
- Arterial Connections

# 2.0 STRUCTURE

The findings of the Snapshot phase provided a foundation for the project team to develop the framework for a shared corridor vision in cooperation with the project steering committee and stakeholder group. The shared corridor vision was also shared with the general public at the second public open house. The groups arrived at a shared corridor vision, which is summarized in this section in 7 components: Land Use, Access Management/Roadway Connectivity, Traffic Safety and Operations, Transit and Non-motorized Transportation, Beautification, Infrastructure, and Implementation.

## 2.1 *Land Use*

- Locate community services in the corridor that are currently scarce within South Cheyenne; including parks and youth centers
- Encourage development of new local and regional retail nodes along SGH, reinforcing the area as a retail destination
- Provide walkable connections between retail centers and nearby neighborhoods
- Locate uses to support and enhance current neighborhoods, residences and businesses
- Reinforce and enhance the role of the Laramie County Community College in the area
- Remove barriers to redevelopment (i.e. inadequate drainage, roadway or utility infrastructure or zoning inconsistencies)

## 2.2 *Access Management/Roadway Connectivity*

- Improve continuity, safety and efficiency of SGH vehicular crossings
- Improve safety for vehicles entering and exiting local accesses
- Build a complete regional roadway network supporting SGH that enhances travel efficiency and does not force SGH to act as a local street

## 2.3 *Traffic Safety & Operations*

- Provide appropriate speed limits to balance the needs of through traffic with local circulation and safety
- Provide peak hour intersection operations at LOS D as a minimum LOS and LOS C desired through the Year 2035
- Widen SGH as needed to provide capacity for increased future throughput
- Construct clearly-marked exclusive right turn lanes at major accesses and intersections
- Provide street lighting where appropriate

## 2.4 Transit and Non-Motorized Transportation

- Ensure adequate and safe pedestrian crossings of the South Greeley Highway
- Provide safe, accessible and continuous sidewalk connections the entire length of the corridor
- Increase connections to the greenway system
- Improve ease of access to transit for users

## 2.5 Beautification

- Install plantings and enhancements; i.e. pedestrian lighting, light pole banners, decorative sidewalk treatments or monumentation, within the right-of-way that complement the surrounding environment
- Develop a gateway feature for South Cheyenne
- Implement a consistent theme; i.e. modern western, that expresses the values of the South Cheyenne Area
- Create a corridor that the surrounding neighborhoods and businesses take pride in
- Develop strategies for maintenance of public areas

## 2.6 Infrastructure

- Ensure that infrastructure improvements coordinate with current and future utility needs
- Encourage development plans that address current and future drainage needs
- Preserve adequate right-of-way for future roadway widening needs

## 2.7 Implementation

- Preserve ability to implement various improvement packages as funding becomes available
- Provide a sustainable and well-maintained streetscape for many years
- Develop the corridor in a fiscally responsible manner

# 3.0 SHAPE (STRATEGIES AND TOOLS)

The Shape phase adds to the shared corridor vision by recommending strategies and tools that may be applied to the corridor to fulfill the elements of the vision. Strategies and tools are identified in five primary areas; Land Use, Roadway Network, Transit and Non-motorized Travel, Traffic Safety and Operations, and Beautification.

## *3.1 Land Use*

Land use strategies and tools are identified to help put components into place to bring about the elements of the community's vision. The strategies and tools are listed and described in **Table 9**.

**Table 9. Land Use Strategies and Tools**

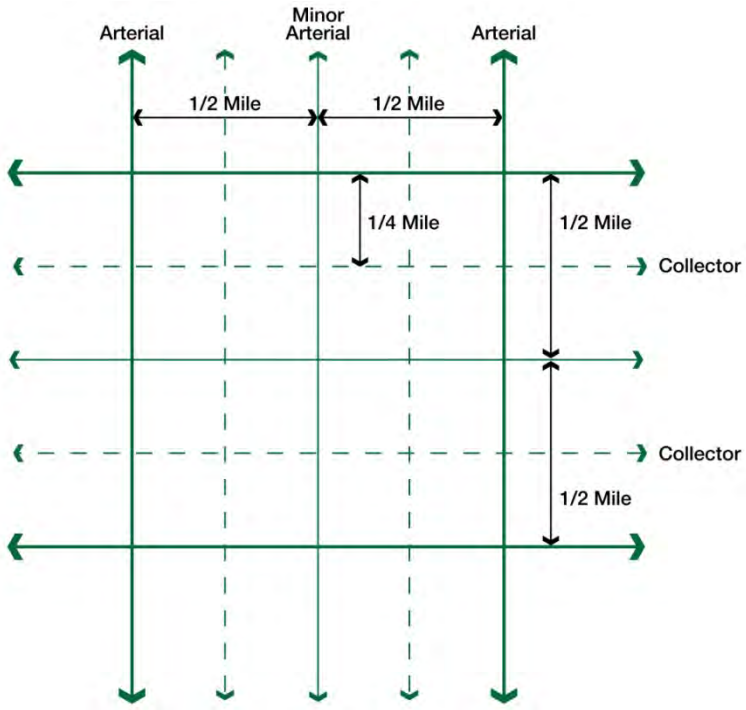
| Strategy/Tool | Description/Results |
|---|---|
| **Land Dedication** | |
| % to park/play space | Since the South Cheyenne area has a high concentration of residential neighborhoods, consider opportunities for dedication of park space and play areas with new developments to allow for nearby recreational opportunities. |
| ROW for access/backage roads | Requiring ROW dedication and/ or provisions of cross-access with redevelopment helps to reduce use of SGH for local trips |
| ROW for amenity zone and widening of SGH north of Wallick | Requiring additional ROW dedication with redevelopment in areas where future widening and amenities are proposed helps to alleviate future needs for ROW acquisition and property impacts. |
| **Land Consolidation** | |
| Consolidate shallow parcels to create mixed-use planned developments along SGH | Smaller, shallow parcels require multiple access points along South Greeley Highway. Encouraging consolidation of small and shallow parcels allows the ability to develop larger planned developments and helps to reduce use of SGH for local trips. |

| Strategy/Tool | Description/Results |
|---|---|
| **Policies/Enforcement** | |
| Enforce ROW encroachment | Enforcement helps to reduce more significant property impacts in future when improvements in the ROW are implemented. |
| Coordinate recommendations of the South Cheyenne Community Assessment and other area plans | Coordination helps to avoid conflicts, may help to create common goals and potential for shared resources. |
| Implement zoning changes to reach conformity with PlanCheyenne | n/a |
| **Provide desired new land uses** | |
| Development of future activity centers | Desired new land uses noted in public participation process include commercial/retail, grocery, library, community and recreation center |
| Redevelopment incentives | Continue to look for opportunities to remove impediments to and/or provide incentives for redevelopment. These may include financing incentives, zoning changes, and/or infrastructure improvements (utility extensions, storm drainage improvements, etc). |

## 3.2 Roadway Network

A roadway network with good connectivity would help to support the function of SGH as a Principal Arterial, which should accommodate few short trips. Strategies and tools are provided to enhance the connectivity of the roadway network in the study area. **Table 10** depicts roadway network strategies and tools.

**Table 10. Roadway Network Strategies and Tools**

| Strategy/Tool | Description/Example |
|---|---|
| **Complete the Arterial Network**: A number of extensions to arterial roadways in the corridor are recommended to occur in PlanCheyenne. Extending these arterials will furnish the backbone for accommodating traffic growth in the area. The grid diagram shown here depicts the approximate spacing between arterials identified in PlanCheyenne as appropriate for the context of the study area. Principal arterials are to be spaced approximately 1 mile apart, with minor arterials at the ½ mile interval between and collector roadways at ¼ mile spacing.<br><br>Complete network of collector and local streets: The network of collector and local streets accommodates shorter trips and delivers vehicles to the arterial network for longer trips. A complete, connected network helps relieve congestion along arterial roadways, allows more direct travel between origins and destinations, and offers more route options. |  |

## 3.3 Transit and Non-motorized Travel

Transit and non-motorized travel strategies and tools are summarized in the following sections. **Table 11** describes strategies and tools to be used at the network level.

**Table 11. Transit and Non-motorized Network Strategies and Tools**

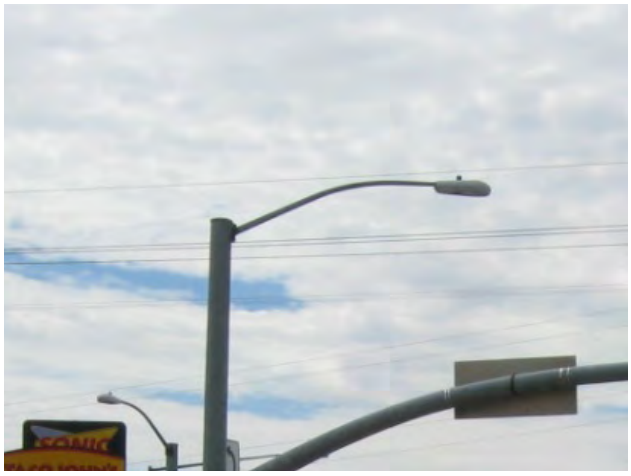
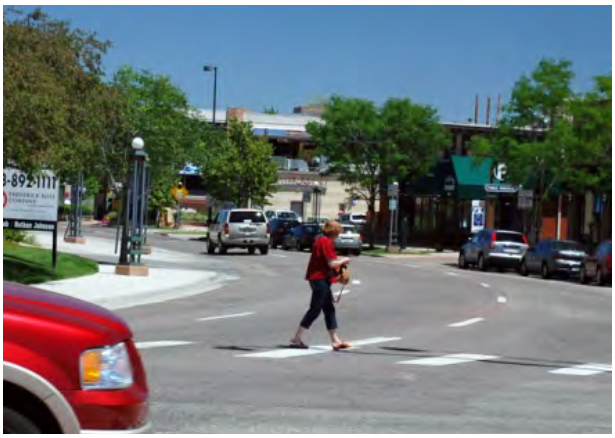
| Strategy/Tool | Example |
|---|---|
| **Complete Sidewalk Connections**: As stated in the *Cheyenne Metropolitan Area Pedestrian Plan* (2010), "Sidewalks are the most fundamental element of the walking network, as they provide an area for pedestrian travel that is separated from vehicle traffic." Along with completing the roadway network, completing a network of connected sidewalks of adequate width and extent will enhance pedestrian travel through the corridor. |  |
| **Build neighborhood Cheyenne Greenway connections**: The Cheyenne Greenway system is steadily expanding throughout the Cheyenne Metropolitan Area. The Greenway currently parallels Allison Draw, and plans to extend the Greenway include the SGH area and South Cheyenne. Local linkages between the greenway and the surrounding community should be provided to help maximize use of the greenway and allow users to enter the greenway at locations other than major roadway junctions. |  |

| Strategy/Tool | Example |
|---|---|
| **Add to the on-street bicycle network**: Completion of a buffered bike lane along South Greeley Highway through the project area has been identified in the *Cheyenne Area On-Street Bicycle Plan and Greenway Plan Update* (June 2012). According to the plan, buffered bike lanes are designed to increase the space between the bicycle lane and travel lane along streets with higher speeds and traffic volumes. |  |

**Table 12** identifies strategies and tools specifically targeted toward improving pedestrian crossings of SGH.

### Table 12. Pedestrian Crossing Enhancement Strategies and Tools

| Strategy/Tool | Example |
|---|---|
| **Improve Visibility at Crossings** | |
| **High-visibility crosswalks**: High visibility crosswalks have the potential to improve driver awareness of pedestrians, as well as increasing use of the crosswalk by pedestrians. A number of treatments may be used to increase visibility, including colors (see photo), textured pavement, skip striping, and in-roadway warning lights. |  |

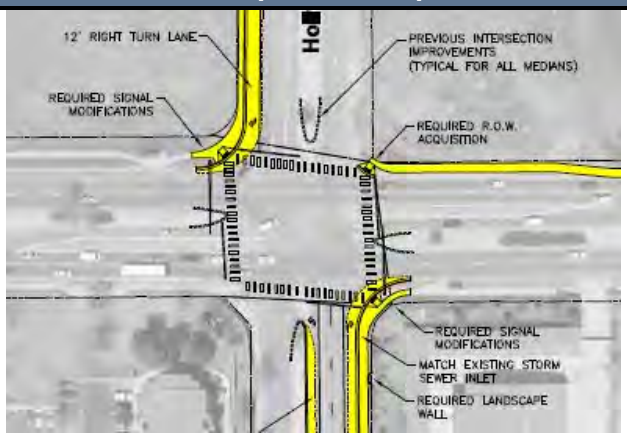
| Strategy/Tool | Example |
|---|---|
| **Provide Luminaires**: Intersection lighting may be used to illuminate pedestrian paths and increase visibility at night. At signalized intersections, crosswalks may be illuminated by luminaires mounted on traffic signal poles (see photo). |  |
| **Accommodate Pedestrians at Signals** | |
| **Ensure adequate pedestrian crossing time:** Review existing signal timings to make certain that sufficient time is provided for pedestrians to safely cross SGH. |  |
| **Improve signal head visibility:** Ensure that pedestrian indications may be clearly seen by those for whom they are intended. Ensure that no obstacles obstruct the view, including utility poles or street furniture. Consider installing pedestrian signal heads on the intersection side of the crosswalk rather than at the back of the crosswalk to reduce the potential for large vehicles to block the view. |  |

| Strategy/Tool | Example |
|---|---|
| **Countdown pedestrian heads:** Countdown pedestrian signal heads are increasingly being used to assist crossing pedestrians in determining whether and when to cross a roadway during the flashing "Don't Walk" signal phase. Research suggests that pedestrians are more likely to obey the "Don't Walk" signal when delivered with a countdown display. |  |
| **Enhance Street Corners** | |
| **Construct curb ramps**: Provide ADA-compliant, directional curb ramps with truncated domes to accommodate visually impaired users. |  |
| **Provide corner refuge area**: Provide an adequate refuge area for pedestrians to wait before crossing the intersection. | |
| **Local pedestrian push button close to ramps/sidewalk**: Ensure that the signal pole is located close to the corner refuge area to keep the pedestrian button within reach of users seeking to cross the intersection. | **This corner provides directional curb ramps and a corner refuge area. The pedestrian push button is easily reached by pedestrians.** |

## 3.4 Traffic Safety and Operations

The project team developed a series of strategies and tools for addressing traffic safety and operations based on the issues identified in the Snapshot phase. **Table 13** outlines strategies and tools for increasing roadway and intersection capacity.

**Table 13. Roadway and Intersection Capacity – Strategies and Tools**

| Strategy/Tool | Description/Example |
|---|---|
| **Intersection Enhancements**: Intersection capacity enhancements can significantly improve overall capacity along the SGH corridor. Such capacity enhancements may consist of traffic control changes, lengthening or adding turn lanes, adjusting signal timing parameters and signal phasing, improving coordination between signals, correcting geometric deficiencies, and channelizing movements. |  |
| **Widening of SGH**: Widening of SGH to provide additional travel lanes would provide additional capacity for through movements and at corridor intersections. Widening considerations include potential impacts to corridor Right-of-way and utilities, construction cost, and ability to accommodate traffic growth. One concern associated with widening of SGH is the additional walking time that would be required to cross a wider section. Also of note, completion of a more connected supporting roadway network would help delay the need for widening SGH. |  <br>**Right-of-way may need to expand by 50 feet or more to accommodate a 6-lane SGH.** |
| **Posted Speeds**: Posted speed limits are an important roadway design parameter that influences roadway capacity and safety. Currently, the posted speed along SGH changes from 65 miles per hour on the south end of the study area to 40 mph at the north end. Adjustments to the posted speed limits along SGH may be considered to enhance traffic capacity and safety, but should be evaluated in view of the corridor context – and should only be implemented with additional study. | |

### 3.4.1 Access Management

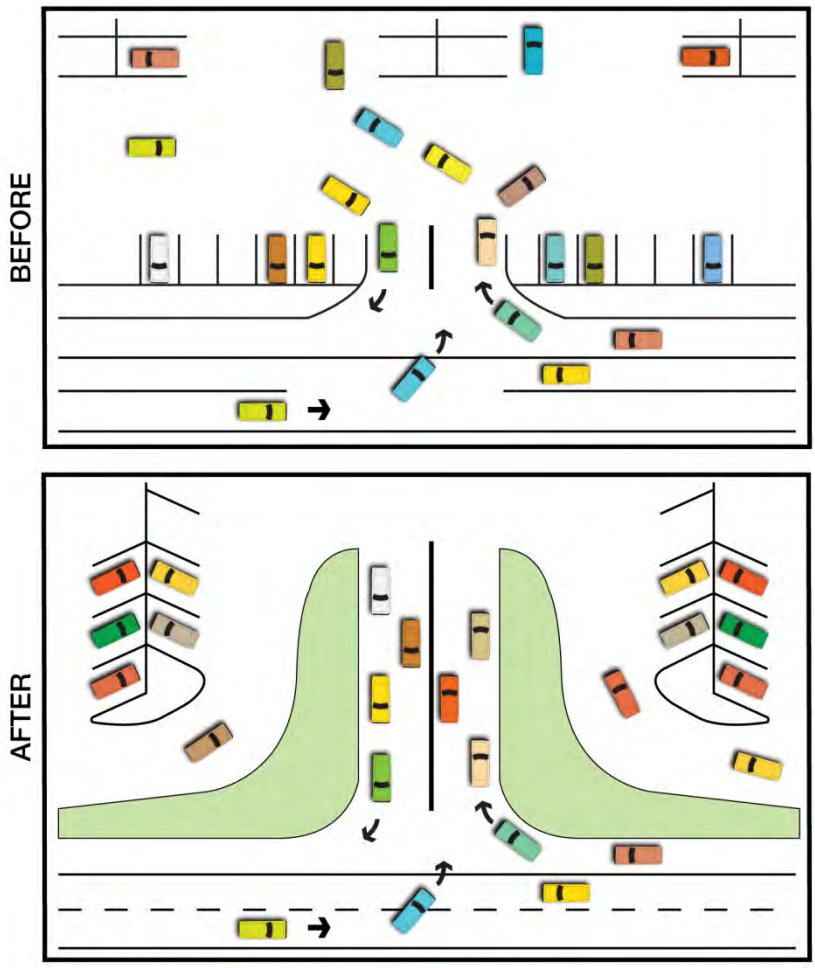
Access management is the systematic control of the location, spacing, design and operation of driveways, median openings, and street connections to a roadway (*Access Management Manual*, Transportation Research Board, 2003). To address the application of access management principles to State Highways in Wyoming, the Wyoming Department of Transportation (WYDOT) completed the WYDOT Access Manual in 2005. The Manual states that access management balances the competing needs of providing access to land while preserving safe and efficient traffic flow on the roadway.

A primary purpose of access management is to reduce the number of conflict points and improve traffic safety along roadways. When direct accesses are provided at short intervals along a major highway such as SGH, conflict points multiply and increase the potential for crashes. In addition, consecutive closely spaced accesses force drivers to negotiate conflict areas without adequate time to perceive and react to traffic entering and exiting the access. The South Greeley Highway is a principal arterial, which typically carry lengthy vehicle-trips and are not well-suited to providing frequent and direct property access. In addition, closely-spaced and poorly designed accesses adversely affect corridor businesses by detracting from safety for entering and exiting customers.

More developed, higher-traffic portions of the SGH are vulnerable to access-related problems. For example, there are currently 106 accesses along both sides of SGH between Fox Farm Road and College Drive, which translates to approximately 100 accesses per mile and an average of roughly 50 feet between accesses. The high density of accesses is reflected in a review of historic crash information, which demonstrates elevated crash rates at locations where more direct accesses are provided.

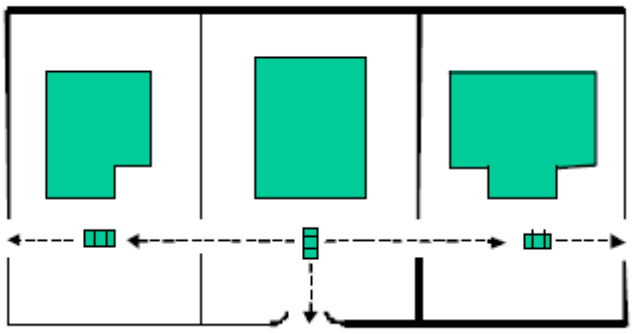
Access-related safety problems often become apparent when traffic volumes increase, as is anticipated along SGH with future growth in South Cheyenne. Access management techniques are identified in **Table 14** to address this issue.

**Table 14. Access Management – Strategies and Tools**

| Access Management Techniques | |
|---|---|
| **On-site circulation**: On-site circulation improvements help organize conflicting flows into and out of parking areas and provide space for exiting vehicles to queue when leaving the site. Potential tools for on-site circulation improvements on SGH include: | |
| **Throat length**: Provision adequate throat depth helps avoid conflicts between parking and entering traffic, and provides space for exiting vehicles to queue. |  |

## Access Management Techniques

**Cross Access:** Cross access is the sharing of access between two adjacent properties, helping to reduce the number of direct highway accesses. Where adjacent properties each possess a direct access to SGH or when development or redevelopment is occurring adjacent to a parcel with access, efforts should be made to share the access.

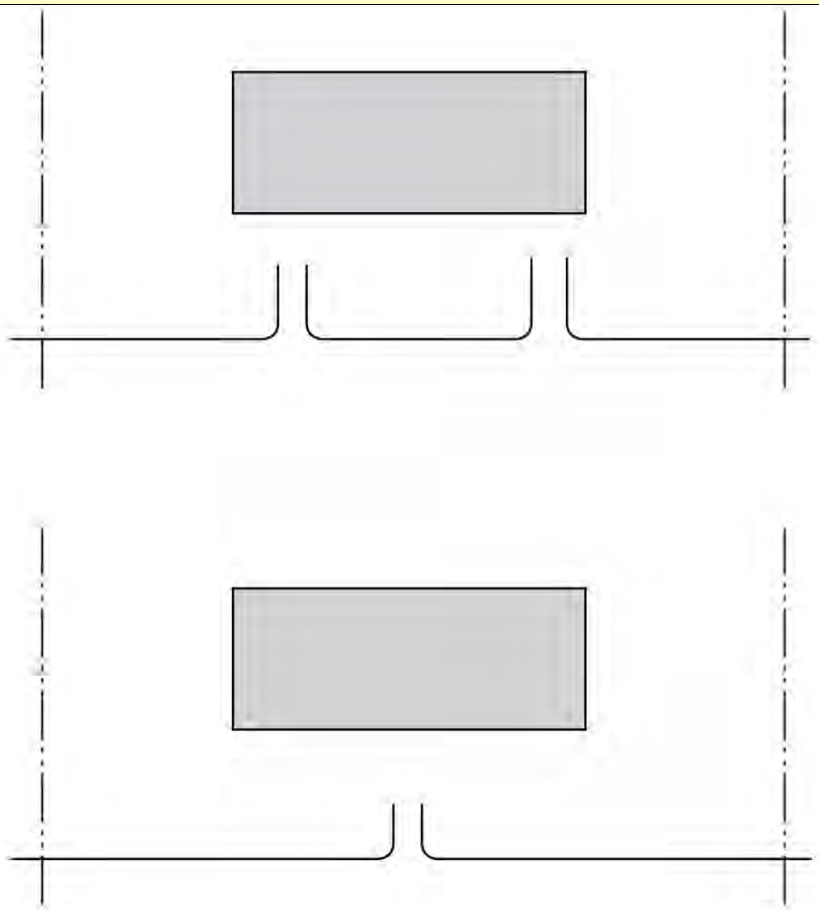


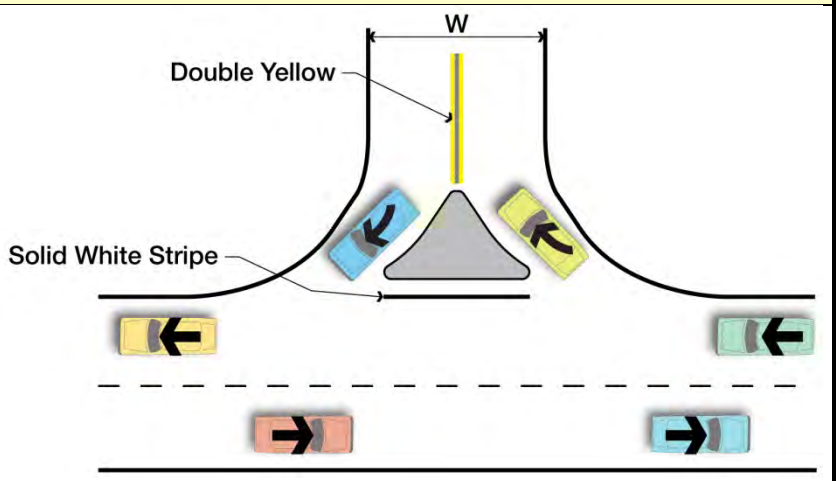
**Example of good cross access between parcels**

## Access Reduction

The WYDOT Access Manual calls for one access per 330 feet of site frontage, and multiple accesses for a single parcel are often unnecessary. Consolidation of redundant accesses reduces vehicular conflict and improves traffic safety.

Closing accesses is also a technique for reducing vehicular conflict on SGH. If an access is to be closed, adequate access to the property must be provided via alternate means. Redevelopment of a group of adjacent parcels can provide an opportunity to close accesses and reduce the number of driveways.

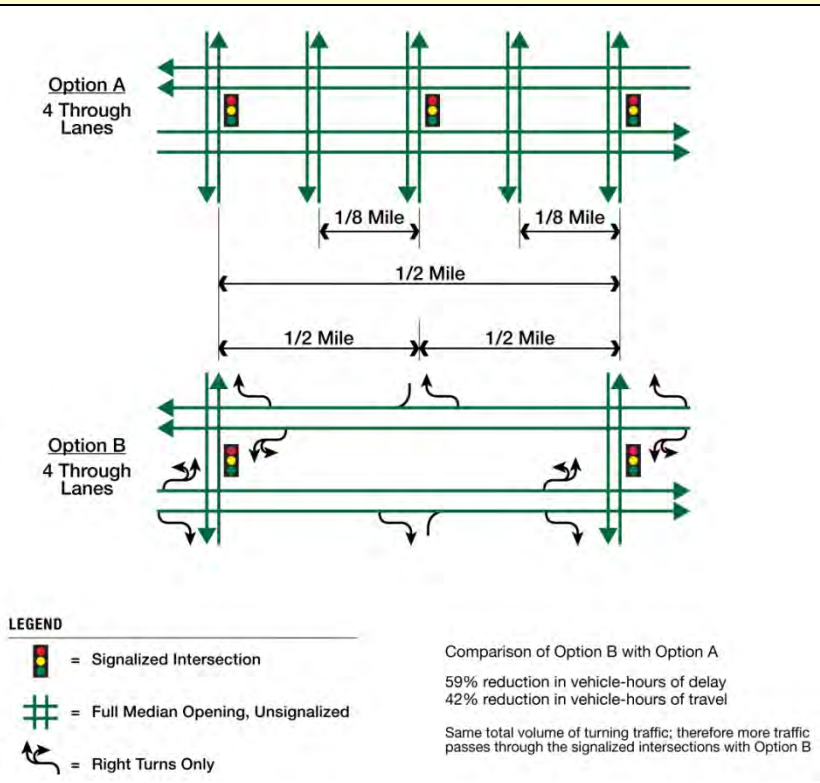


| Access Management Techniques | |
|---|---|
| **Limited movement access/Channelization** | |
| Left turn movements are more vulnerable to crashes than right turns due to additional conflict points. Limiting access to right-turn only or restricting outbound left turns reduces the number of conflict points. Raised channelization islands are typically necessary to regulate access movements. |  |
| **Exclusive Turn Lanes** | |
| Providing exclusive turn lanes for vehicles entering and exiting an access gives refuge from through traffic and reduces potential for rear-end crashes. |  <br>**Exclusive right-turn lane along Cheyenne arterial** |

## Access Management Techniques

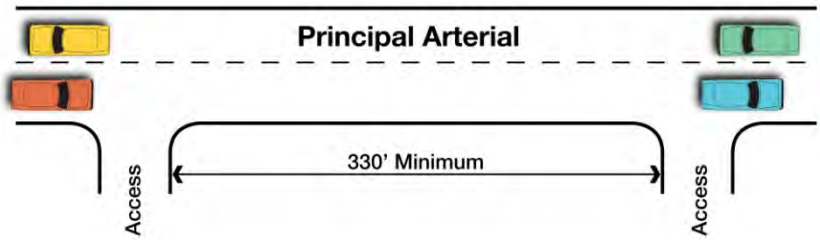
### Signal Spacing

Providing regular spacing between signalized intersections is important to maintaining progression of traffic flow. The WYDOT Access Manual has identified a minimum spacing of ½ mile between signals along urban principal arterials like SGH.



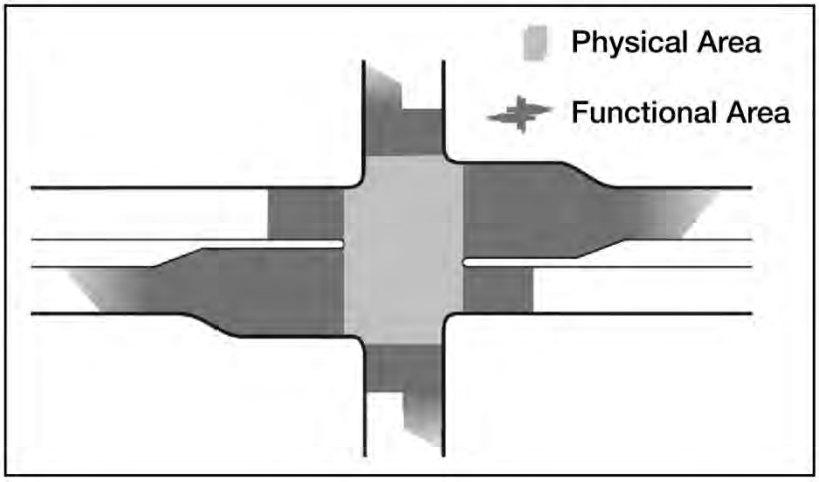

### Access Placement/Relocation

**Provide spacing between accesses**: Minimum spacing between accesses helps lessen the potential for conflicts and crashes on the highway. The WYDOT Access Manual calls for a minimum of 330 feet between accesses of any type along a Urban Principal Arterial.



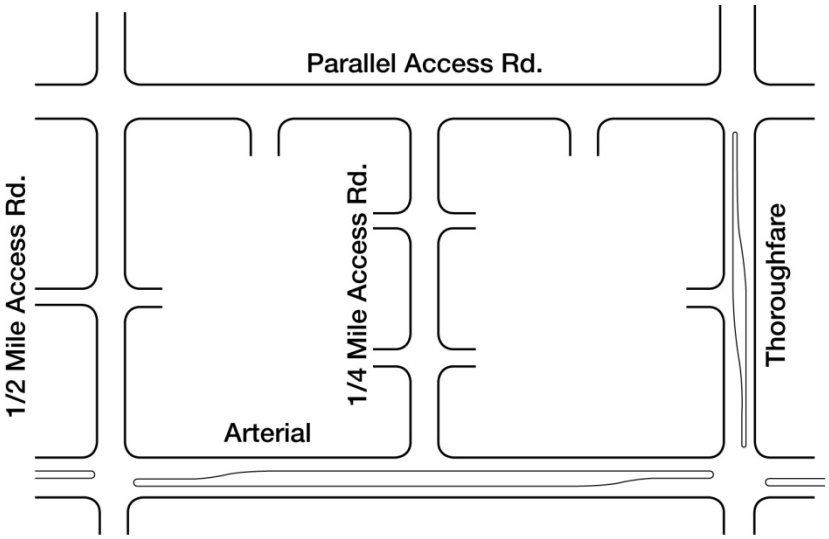
## Access Management Techniques

**Provide corner clearance**: Spacing between accesses and adjacent major intersections ensures that access traffic does not interfere with traffic queuing from the intersection. Limiting accesses within the functional area of the intersections helps reduce interference.




## Backage Roads/Parallel Access Roads

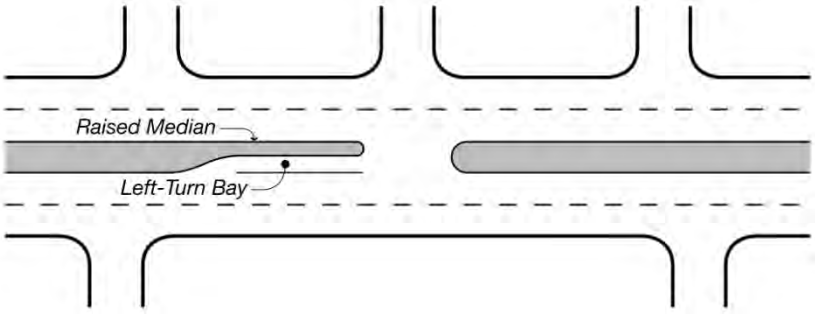
Backage roads provide a means for vehicles to enter and exit properties without having to do so directly from the adjacent higher-speed arterial. The WYDOT Access Manual states the preference that direct access to parcels not come from the state highway, but rather from side and backage roads.



## Access Management Techniques

### Raised Median

The WYDOT Access Manual states that installation of a raised, non-traversable median should be considered when daily traffic volumes along a roadway exceed 24,000 vpd, and installed when volumes reach 30,000 vpd. Installing a median helps to regulate movements and concentrate turning movements at locations where proper turn lanes may be provided. The advantages of installing a median include increased safety and capacity by separating opposing flows. Disadvantages include increased emergency response times and additional U-turns or out-of-direction travel.




**Existing raised median along SGH north of Fox Farm Road**

## 3.5 Beautification

The project team developed a series of strategies and tools for addressing beautifications based on the issues identified in the Snapshot phase. **Table 15** outlines strategies and tools for increasing roadway and intersection capacity.

**Table 15. Beautification Strategies and Tools**

| Strategy/Tool | Examples / Description |
|---|---|
| Corridor theme development | Implement consistent design theme in streetscape enhancements along the South Cheyenne business district |
| **Provide streetscape amenities** | |
| Pedestrian scale lighting |   |
| Light pole banners |   |

| Strategy/Tool | Examples / Description |
|---|---|
| Monumentation – Incorporate ornamental columns in raised medians or at intersections in commercial areas similar to those in other parts of Cheyenne |  |
| Decorative Sidewalk treatments at key intersections |   |

| Strategy/Tool | Examples / Description |
|---|---|
| Climate-sensitive plantings |  |
| Maintenance Strategies | ▪ Use xeric and low-water plantings<br>▪ Use long-lasting and low-maintenance materials for paving, street furnishings, and lights<br>▪ Consider the development of a Business Improvement District to help consolidate and fund maintenance of public areas |
| **Develop gateway feature** | |
| Provide gateway sign visible from northbound US Hwy 85 announcing the arrival into Cheyenne and the South Cheyenne district |  |

# 4.0 BUILD

The Build phase of the South Greeley Highway Corridor Plan provides recommendations for implementing the strategies and tools outlined in the Shape phase, and highlights opportunities to do so. The recommendations are organized according to the segments identified in the Snapshot section.

## *4.1 Segment 1: I-80 to College Drive*

### 4.1.1 I-80 to Fox Farm Road

Early in the project, the section of SGH between I-80 and Fox Farm Road was identified as a special project area, and a separate preliminary design process was undertaken to identify Americans with Disabilities Act (ADA)-conforming pedestrian improvements. The area of improvement extends between Fox Farm Road and 9th Street (north of I-80). Because improvements to this portion of the corridor were addressed in the separate process, minimal attention is given in this report to SGH between Fox Farm Road and I-80.

### 4.1.2 Segment Recommendations and Opportunities

**Figure 15** depicts, in map and tabular form, the recommendations and opportunities present in corridor segment 1 between I-80 and College Drive. As shown, the recommendations highlight locations where strategies and tools may be implemented to further the shared corridor vision. Consistent with the Shape phase, recommendations are provided in the categories of land use, roadway network, transit and nonmotorized travel, traffic operations and safety, and beautification. Descriptions of the recommendations and opportunities by category are provided as follows.

**Land Use** – Segment 1 is currently mostly developed, but opportunities for redevelopment are likely to arise over time. The map highlights locations where multiple parcels may be consolidated to facilitate such redevelopment, along with park and open space opportunity zones. Rezoning of the parcel at the northwest corner of Allison Road and Walterscheid Boulevard would be necessary to bring about the mixed-use identified for this parcel in PlanCheyenne.

**Roadway Network** – The roadway network north of College Drive demonstrates a need for enhanced connectivity in all directions. **Figure 15** highlights general areas of roadway linkages that would help to bring about improved continuity and connectivity. As noted, such linkages should also provide sidewalks to enhance the non-motorized travel network. Enhancements to area roadway connectivity would help relieve traffic along SGH, delaying the need for the widening of SGH to 6 lanes shown in PlanCheyenne's Fiscally Constrained Roadway plan. However, in recognition of this plan and potential future traffic growth, a mid-term priority is assigned to preserving right-of-way along SGH along Segment 1 for future widening needs.

**Transit and Non-motorized Travel** – No specific transit recommendations are provided. However, enhancements to the non-motorized network will help to increase demand for travel by bus. The plan reflects the bicycle lane on SGH recommended in the current Cheyenne On-Street Bicycle plan. The SGH/Allison Road intersection currently demonstrates some deficiencies for crossing pedestrians, and it is recommended that these deficiencies be corrected by enlarging the corner refuges areas and improving pedestrian signal head visibility.

# Corridor Segment 1: Recommendations and Opportunities

South Greeley Highway Corridor Conceptual Plan

**Figure 15**

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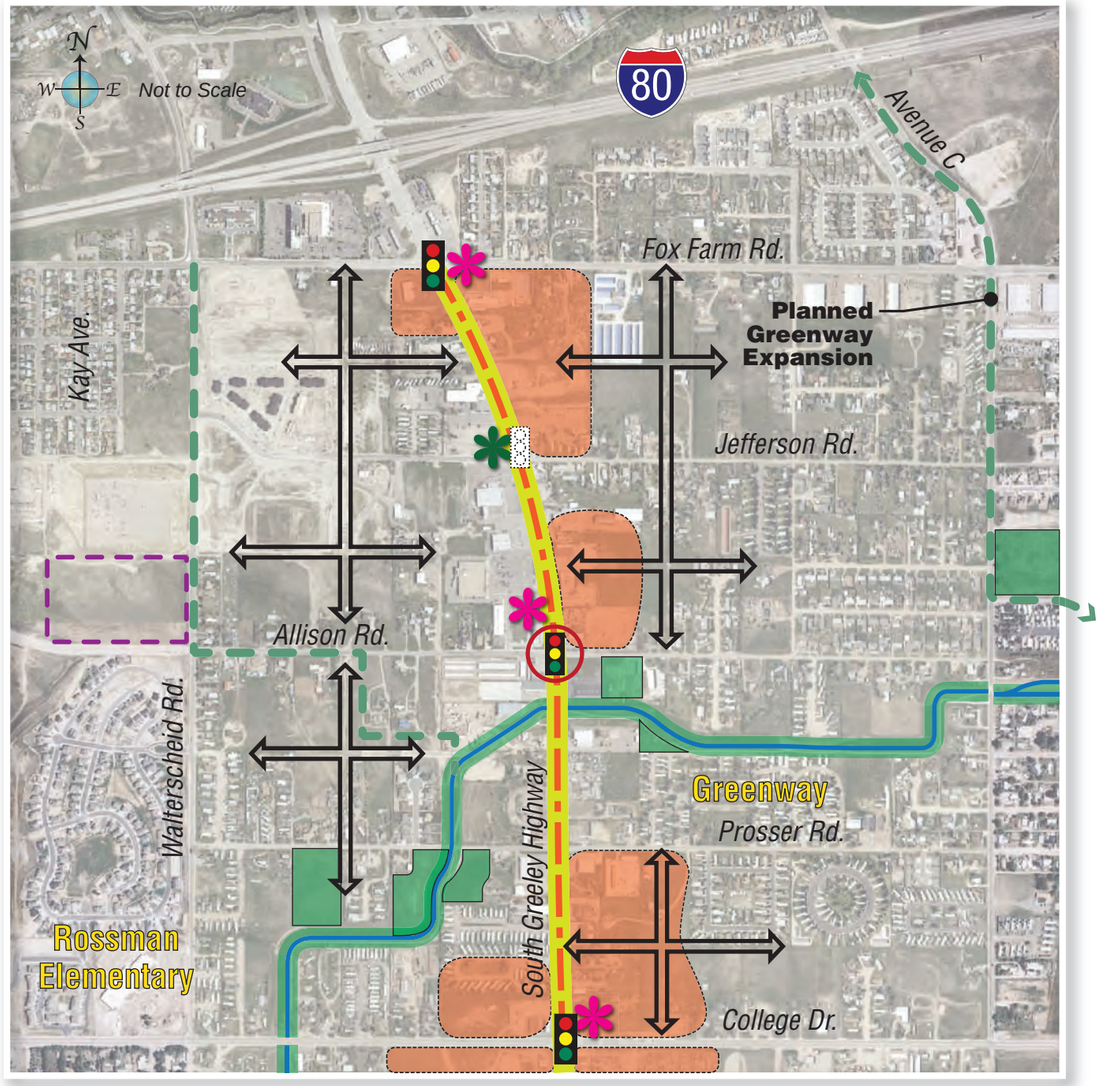


**LEGEND**

= Existing Signalized Intersection

= Potential Future Signalized Intersection

| MAP SYMBOL | RECOMMENDATION/OPPORTUNITY | | PRIORITY* |
|---|---|---|---|
| | Opportunity area for consolidation of multiple parcels when redevelopment occurs | | Mid-term |
| | Opportunity zone for park / open space | | Mid-term |
| | Zoning change to facilitate Mixed-use/commercial | | Long term |
| | Develop a collector/local connection to enhance connectivity of roadway network. Include sidewalks with new roadways. | | Near term |
| | Improve signalized pedestrian crossing accommodations by enlarging corner refuge areas and improving visibility of pedestrian signal heads. | | Near term |
| | Preserve Right-of-way for potential future widening of South Greeley Highway and College Drive | | Mid-term |
| | Proceed with further study of signalization of SGH/Jefferson Road Intersection | | Near term |
| | Preserve future opportunity to increase intersection capacity | | Mid-term |
| | Implement on-street bicycle lane | | Mid-term |
| | Implement access management techniques: | | |
| | Initial actions | • Implement on-site circulation improvements, particularly increased throat length<br>• Reduce accesses where feasible, eliminating redundant accesses and implementing cross access between adjacent parcels<br>• Provide corner clearance of accesses from major intersections<br>• Construct backage roads where feasible to provide alternative means of access<br>• Complete Access Management Plan for SGH between Fox Farm Road and Wallick Road | Near term |
| | Subsequent action | • Upon reducing accesses and increasing access spacing along SGH, provide exclusive right-turn speed-change lanes at access locations that exceed minimum traffic volumes specified in the City of Cheyenne Standards. | Mid-term |
| | When daily SGH volume exceeds 24,000 vpd | • Initiate consideration of installing raised median along SGH between Fox Farm Road and College Drive | Mid-term |
| | Begin to introduce consistent streetscape theme by providing amenities with redevelopment of parcels along SGH. | | Near term |
| | Ensure that existing South Greeley Highway right-of-way is kept free from encroachments. | | Near term |

*The priority column refers to the general timeframe within which the implementation of the recommendation should begin.

**Traffic Operations and Safety** – Traffic operations and safety elements comprise the majority of recommendations for Segment 1. Several access management techniques are recommended for initial action, including completion of a comprehensive Access Management Plan for SGH between Fox Farm Road and Wallick Road. Consideration of a raised median is recommended to occur when traffic volumes along SGH reach 24,000 – 30,000 vehicles per day, consistent with guidance provided in the WYDOT Access Manual. Operational enhancements to intersections are included, with a near-term focus on the SGH/Jefferson Road intersection and long term future attention to the Fox Farm Road, Allison Road, and College Drive intersections. Right-of-way (ROW) should be preserved to accommodate future widening of both SGH and College Drive.

**Beautification** –Large-scale beautification efforts will require dedication of land along SGH, but smaller individual efforts may be completed as parcels redevelop adjacent to the highway. The existing ROW of SGH should be kept clear of obstacles. **Table 16** depicts recommended enhancements to be implemented within Segment 1, along with relative cost information.

### Table 16. Segment 1 Enhancement Comparisons and Recommendations

| Enhancement Type | Relative Cost | | Enhancement Recommendations | |
|---|---|---|---|---|
| | Capital | Operations and Maintenance | I-80 to Fox Farm Road | Fox Farm Road to College Drive |
| **Pavements** | | | | |
| Grey Concrete | $$ | $ | | |
| Colored Concrete | $$$ | $ | √ | √ |
| Pavers | $$$ | $ | √ | √ |
| **Parkway Landscape** | | | | |
| Non-irrigated seed | $ | $$ | | |
| Rock mulch | $$ | $$ | | |
| Irrigated turf with trees | $$ | $$$ | √ | √ |
| **Streetscape Amenities** | | | | |
| Planter pots | $$ | $$$ | √ | √ |
| Seat walls | $$$ | $ | | √ |
| Benches | $$ | $ | | |
| Trash receptacles | $$ | $$$ | | |
| Bike racks | $ | $ | | |
| Decorative pedestrian lights | $$$ | $$ | √ | √ |
| Sculpture/columns | $$$ | $ | √ | √ |
| Decorative street signs | $$ | $$ | | |
| Gateway signs | $$$ | $$ | | |

$=low relative cost, $$=mid-range relative cost, $$$=high relative cost
√=Recommended Enhancement

As shown, recommended enhancements are designated with a check mark in the appropriate row and column. A number of the recommended enhancements for Segment 1 are depicted on **Figure 16**.

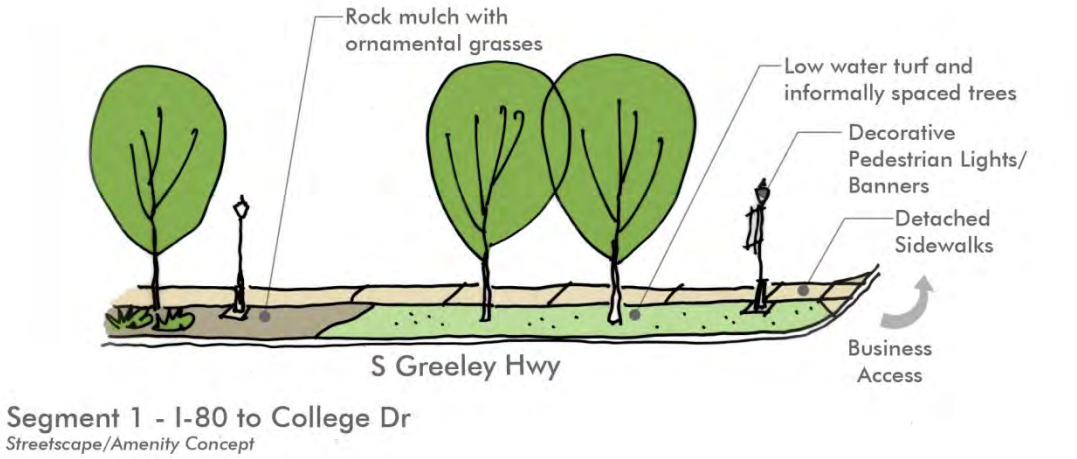


**Figure 16. Segment 1: Example Midblock Enhancements**

A plan view depiction of example beautification elements that could be provided along Segment 1 is provided on **Figure 17**.

### 4.1.3 Prioritization

A priority has been identified for each recommendation and opportunity, depicted on **Figure 15**. Three general priority categories are provided: Near term, Mid-term and Long term. The recommendations and opportunities are prioritized based on the urgency of the need being addressed, steering committee discussion, and public and stakeholder input. The priority information indicates the 'start time' for each recommendation or opportunity. For example, it is recommended that roadway network improvements be pursued in the Near term timeline, but efforts to enhance the roadway network are expected to continue well beyond the Near term future.

### 4.1.4 Typical Section Options

**Figure 18** provides a menu of typical roadway sections from which to select when implementing future improvements to Segment 1. As shown, the ultimate condition includes widening the ROW from the current approximate 100 feet to 120 feet, along with a raised center median, amenity zone/detached sidewalk, and buffered bike lane. A number of interim options are provided as less costly options that would deliver elements of the corridor vision while not requiring completion of the ultimate section. The least expensive option would provide a bike lane by simply restriping the existing shoulder.

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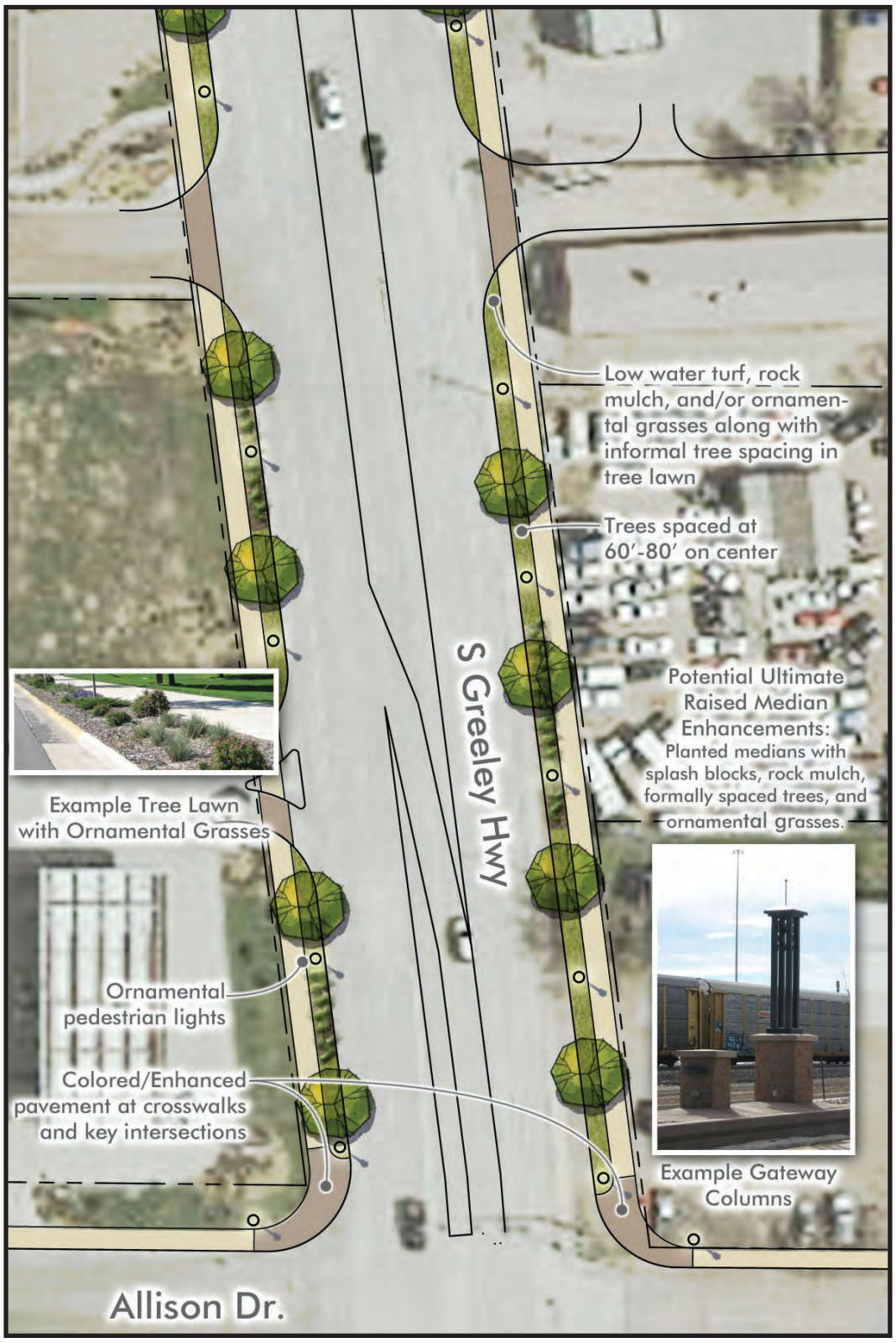
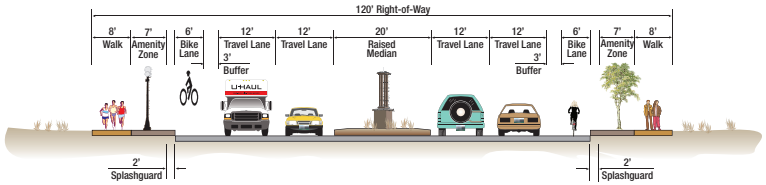
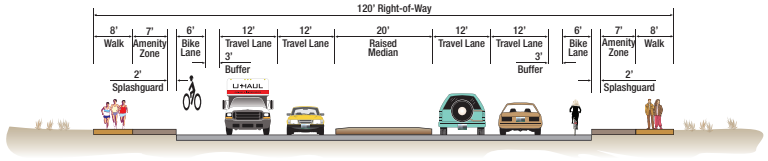
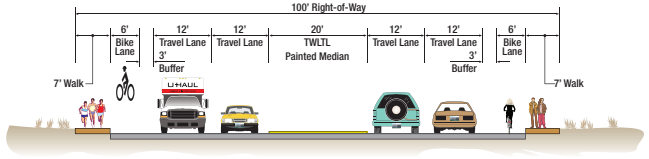
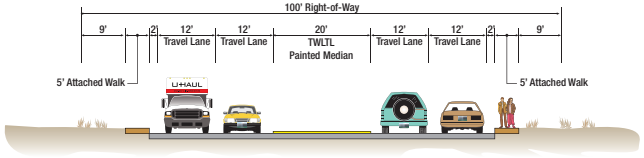
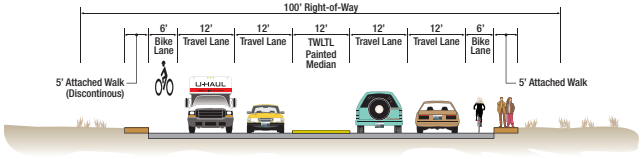

Low water turf, rock mulch, and/or ornamental grasses along with informal tree spacing in tree lawn
Trees spaced at 60'-80' on center
Potential Ultimate Raised Median Enhancements: Planted medians with splash blocks, rock mulch, formally spaced trees, and ornamental grasses.
S Greeley Hwy
Example Tree Lawn with Ornamental Grasses
Ornamental pedestrian lights
Colored/Enhanced pavement at crosswalks and key intersections
Example Gateway Columns
Allison Dr.

# Segment 1
# Recommended Roadway Options

## South Greeley Highway Corridor Conceptual Plan — Figure 18

| Option | Cross Section | Vision Elements Achieved | Construction Cost | Landscape Maintenance Cost | Right-of-Way Impact (cost not included in construction cost) |
|---|---|---|---|---|---|
| **Ultimate Option**<br>Landscaping Enhancements |  | • Landscape in median and amenity zone<br>• Improved traffic safety with raised median<br>• Bicycle accommodation<br>• Pedestrian-friendly detached walk<br>NOTE: Full roadway reconstruction | $10.95M | $50,200/year | 2.42 Acres |
| **Interim Option 4**<br>Widen ROW, Add Amenity Zone |  | • Improved traffic safety with raised median<br>• Bicycle accommodation<br>• Pedestrian-friendly detached walk<br>NOTE: Full roadway reconstruction | $10.62M | $10,000/year | 2.42 Acres |
| **Interim Option 3**<br>Add Bike Lane & Build New Sidewalk |  | • Bicycle accommodation<br>• Widened sidewalk<br>NOTE: Full roadway reconstruction | $9.75M | $0/year | 0 Acres |
| **Interim Option 2**<br>Widen Center Turn Lane |  | • Utilize existing pavement | $183,000 | $0/year | 0 Acres |
| **Interim Option 1**<br>Convert Shoulder to Bike Lane |  | • Bicycle Accommodation<br>• Utilize existing pavement | $50,000 | $0/year | 0 Acres |

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## 4.2 Segment 2: College Drive to Wallick Road

### 4.2.1 Segment Recommendations and Opportunities

**Figure 19** depicts, in map and tabular form, the recommendations and opportunities present in corridor segment 2 between College Drive and Wallick Road. As shown, the recommendations highlight locations where strategies and tools may be implemented to further the shared corridor vision. Consistent with the Shape phase, recommendations are provided in the categories of land use, roadway network, transit and nonmotorized travel, traffic operations and safety, and beautification. Descriptions of the recommendations and opportunities by category are provided as follows.

**Land Use** – The land area within Segment 2 is currently developed with residential units, industrial properties and vacant areas. The map highlights locations where multiple parcels might be consolidated to facilitate such redevelopment, along with park and open space opportunity zones. A variety of opportunities for development and redevelopment exist, particularly within the southwest corner of the SGH/College Drive intersection. PlanCheyenne has highlighted this location for a future activity center. **Figure 20** provides an example of how this property could be redeveloped to include uses of interest to the community. A large area has also been identified for potential use as an Industrial park east of SGH between Murray and Wallick Roads.

**Roadway Network** – The roadway network south of College Drive possesses limited continuity both north-south and east-west. Improvements would result from extending Walterscheid Boulevard and Avenue C south from College Drive as minor arterials. **Figure 19** highlights additional general roadway linkages that would help to bring about improved continuity and connectivity in the local and collector roadway network. As noted, these roadways should also provide sidewalks to enhance the non-motorized travel network. Enhancements to area roadway connectivity would help relieve traffic along SGH, delaying the need for the widening of to 6 lanes shown in PlanCheyenne's Buildout Vision Roadway plan. However, in recognition of this plan and the potential for aggressive future traffic growth along SGH, a mid-term priority is assigned to preserving right-of-way along SGH along Segment 2 for future widening needs.

**Transit and Non-motorized Travel** – A major need identified for this portion of the corridor is the provision of sidewalks on both sides of SGH. Additional street lighting would help maximize safety for pedestrians. No specific transit recommendations are provided. However, enhancements to the non-motorized network will help to increase demand for travel by bus. The plan reflects the bicycle lane on SGH recommended in the current Cheyenne On-Street Bicycle plan.

**Traffic Operations and Safety** – Several access management techniques are recommended for initial action, including completion of a comprehensive Access Management Plan for SGH between Fox Farm Road and Wallick Road. Consideration of a raised median is recommended to occur when traffic volumes along SGH reach 24,000 – 30,000 vehicles per day, consistent with guidance provided in the WYDOT Access Manual. The intersections of SGH with Artesian and Wallick Roads have been identified as future potential signalized intersections, and right-of-way should be preserved to accommodate future enhancements to these intersections. Enhancements to the Wallick Road intersection should include reconfiguration of the frontage road to connect farther west.

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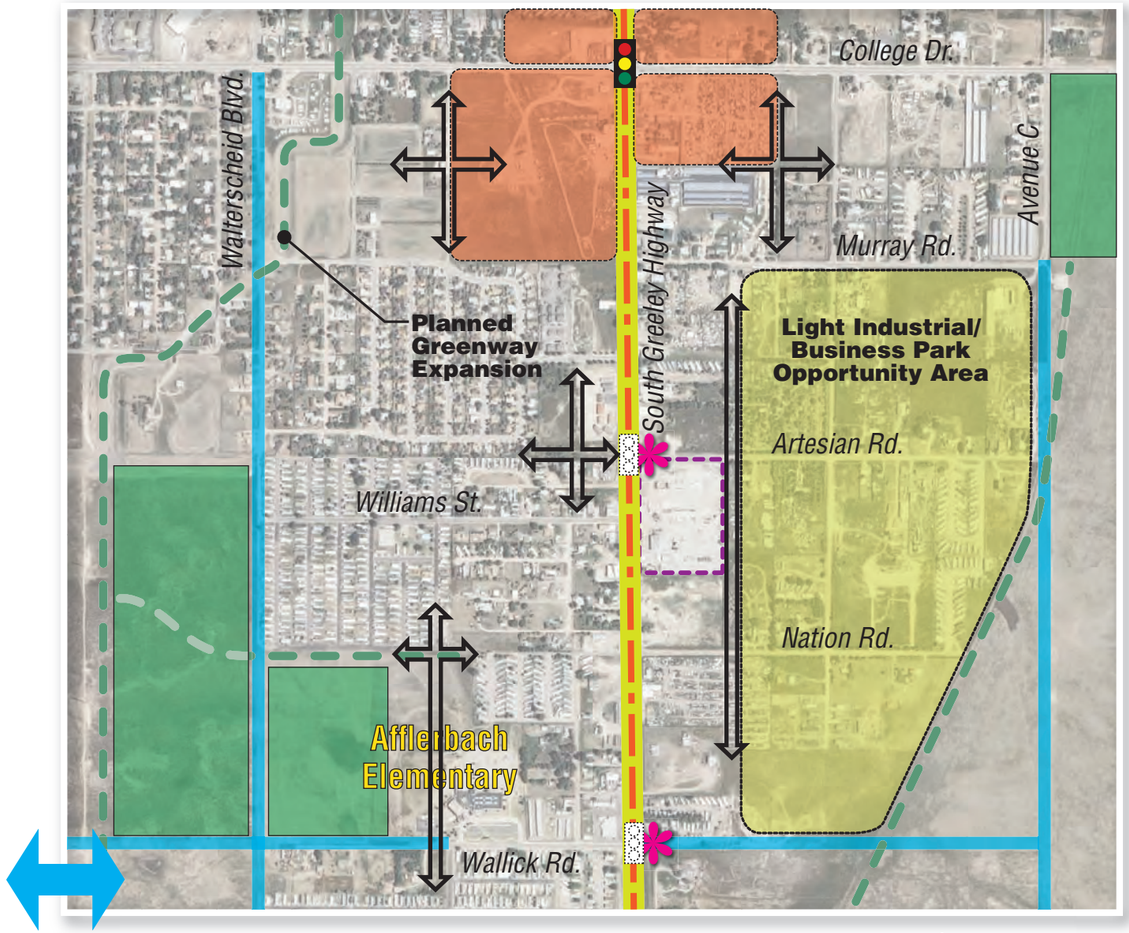


| MAP SYMBOL | RECOMMENDATION/OPPORTUNITY | | PRIORITY* |
|---|---|---|---|
| | Opportunity area for consolidation of multiple parcels when redevelopment occurs | | Mid-term |
| | Opportunity zone for park / open space | | Mid-term |
| | Zoning change to facilitate Mixed-use development | | Long term |
| | Extend Walterscheid Boulevard and Avenue C as minor arterials. Extend Wallick Road as east-west minor arterial. | | Mid-term |
| | Develop a collector/local connection to enhance connectivity of roadway network. Include sidewalks with new roadways. | | Near term |
| | Preserve future opportunity to increase intersection capacity at Artesian Road and Wallick Road intersections, including potential future signalization | | Near term |
| | Preserve Right-of-way for potential future widening of South Greeley Highway | | Mid-term |
| | Construct sidewalks along SGH between College Drive and Wallick Road | | Near term |
| | Provide additional street lighting along SGH between College Drive and Wallick Road | | Near term |
| | Implement access management techniques: | | |
| | Initial actions | • Implement on-site circulation improvements, particularly increased throat length<br>• Reduce accesses where feasible, eliminating redundant accesses and implementing cross access between adjacent parcels<br>• Provide corner clearance of accesses from major intersections<br>• Construct backage roads where feasible to provide alternative means of access<br>• Complete Access Management Plan for SGH between Fox Farm Road and Wallick Road | Near term |
| | Subsequent action | • Upon reducing accesses and increasing access spacing along SGH, provide exclusive right-turn speed-change lanes at access locations that exceed minimum traffic volumes specified in the City of Cheyenne Standards. | Mid-term |
| | When daily SGH volume exceeds 24,000 vpd | • Initiate consideration of installing raised median along SGH between College Drive and Wallick Road | Mid-term |
| | Begin to introduce consistent streetscape theme by providing amenities with redevelopment of parcels along SGH. | | Near term |
| | Ensure that existing South Greeley Highway Right-of-way is kept free from encroachments. | | Near term |

*The priority column refers to the general timeframe within which the implementation of the recommendation should begin.

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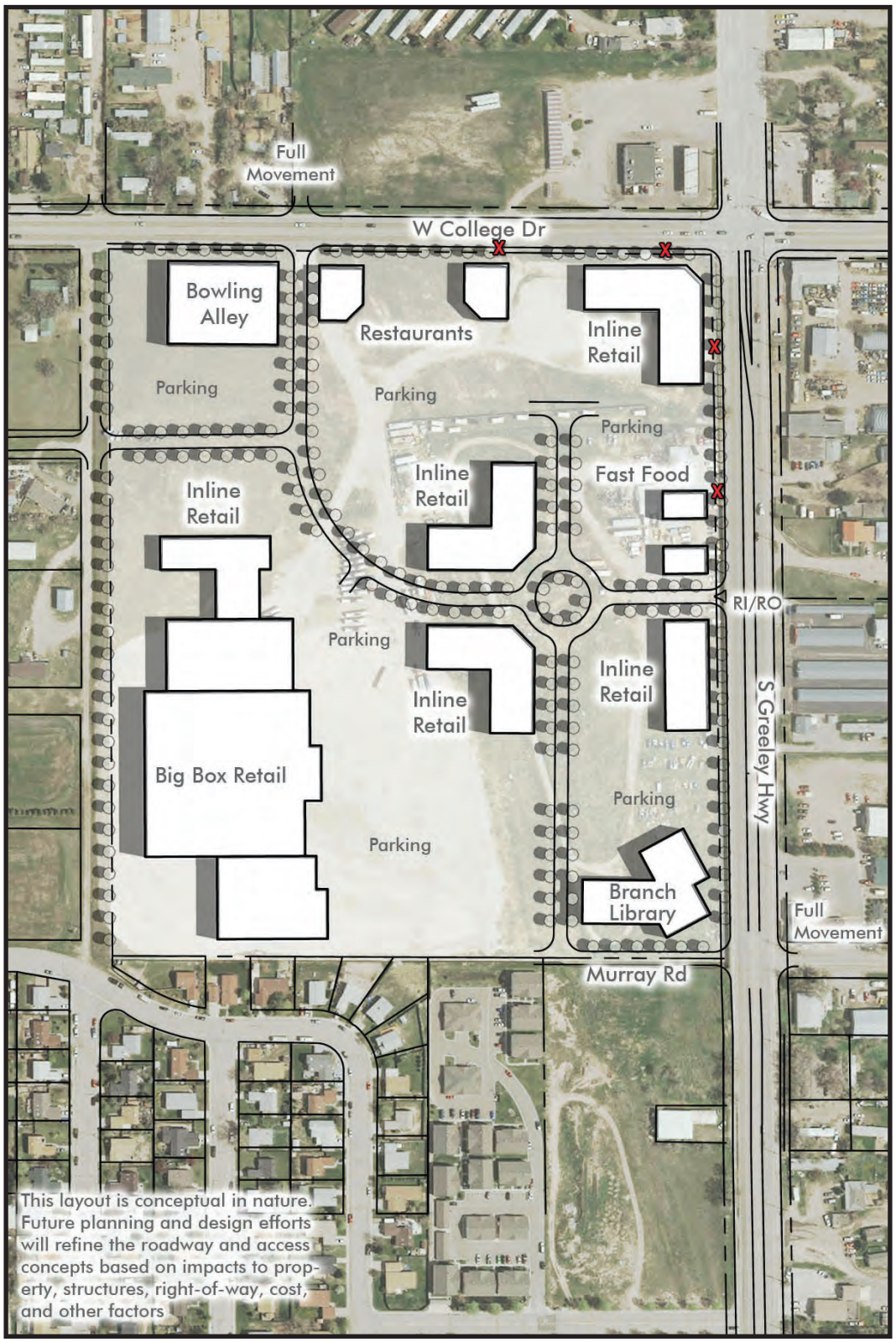
Full Movement
W College Dr
Bowling Alley
Restaurants
Inline Retail
Parking
Parking
Parking
Inline Retail
Inline Retail
Fast Food
RI/RO
Parking
Inline Retail
Inline Retail
S Greeley Hwy
Big Box Retail
Parking
Parking
Branch Library
Full Movement
Murray Rd
This layout is conceptual in nature. Future planning and design efforts will refine the roadway and access concepts based on impacts to property, structures, right-of-way, cost, and other factors

**Beautification** –Large-scale beautification efforts will require dedication of land along SGH, but smaller individual efforts may be completed as parcels redevelop adjacent to the highway. The existing ROW of SGH should be kept clear of obstacles. **Table 17** depicts recommended enhancements to be implemented within Segment 2, along with relative cost information.

### Table 17. Segment 2 Enhancement Comparisons and Recommendations

| Enhancement Type | Relative Cost | | Enhancement Recommendations |
|---|---|---|---|
| | Capital | Operations and Maintenance | College Drive to Wallick Road |
| **Pavements** | | | |
| Grey Concrete | $$ | $ | √ |
| Colored Concrete | $$$ | $ | |
| Pavers | $$$ | $ | |
| **Parkway Landscape** | | | |
| Non-irrigated seed | $ | $$ | |
| Rock mulch | $$ | $$ | |
| Irrigated turf with trees | $$ | $$$ | √ |
| **Streetscape Amenities** | | | |
| Planter pots | $$ | $$$ | |
| Seat walls | $$$ | $ | |
| Benches | $$ | $ | |
| Trash receptacles | $$ | $$$ | |
| Bike racks | $ | $ | |
| Decorative pedestrian lights | $$$ | $$ | |
| Sculpture/columns | $$$ | $ | |
| Decorative street signs | $$ | $$ | |
| Gateway signs | $$$ | $$ | √ |

$=low relative cost, $$=mid-range relative cost, $$$=high relative cost
√=Recommended Enhancement

As shown, recommended enhancements are designated with a check mark in the appropriate row and column. A number of the recommended enhancements for Segment 2 are depicted on **Figure 21**.

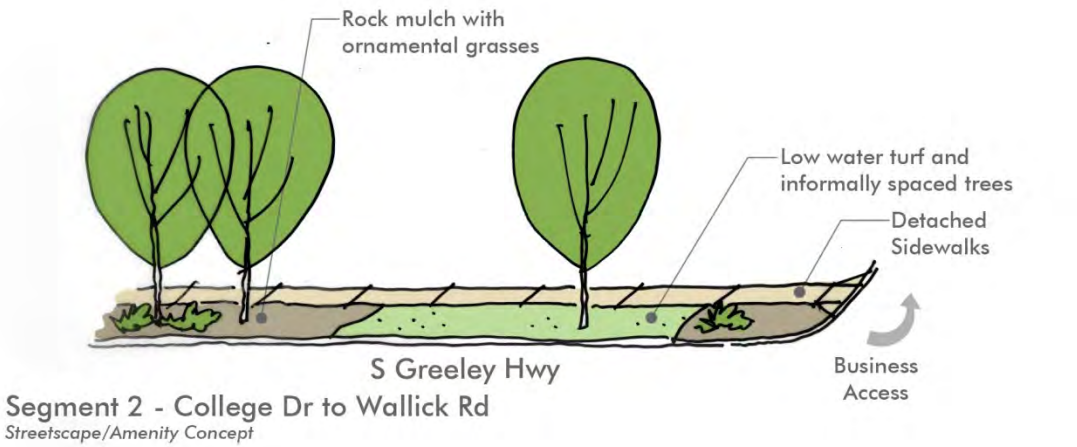


**Figure 21. Segment 2: Example Midblock Enhancements**

Examples of beautification elements that could be included are provided in plan view on **Figure 22**.

**Drainage** – A key consideration applicable to all recommendations in Segment 2 is the need to consider drainage needs and improvements along with any transportation improvements.

### 4.2.2 Prioritization

A priority has been identified for each recommendation and opportunity, depicted on **Figure 19**. Three general priority categories are provided: Near term, Mid-term and Long term. The recommendations and opportunities are prioritized based on the urgency of the need being addressed, steering committee discussion, and public and stakeholder input. The priority information indicates the 'start time' for each recommendation or opportunity. For example, it is recommended that streetscape amenities be provided with adjacent property redevelopment starting in the Near term future. However, efforts to provide streetscape amenities are expected to continue well beyond the Near term future as opportunities arise to do so.

### 4.2.3 Typical Section Options

**Figure 23** provides a menu of typical sections from which to select when implementing future improvements to Segment 2. As shown, the ultimate condition would include widening the ROW from the current approximate 100 feet to 120 feet, along with a raised center median, amenity zone/detached sidewalk, and buffered bike lane. A number of interim options are provided as less costly options that would deliver elements of the corridor vision while not requiring completion of the ultimate section. The least expensive option would add a detached sidewalk to the existing section.

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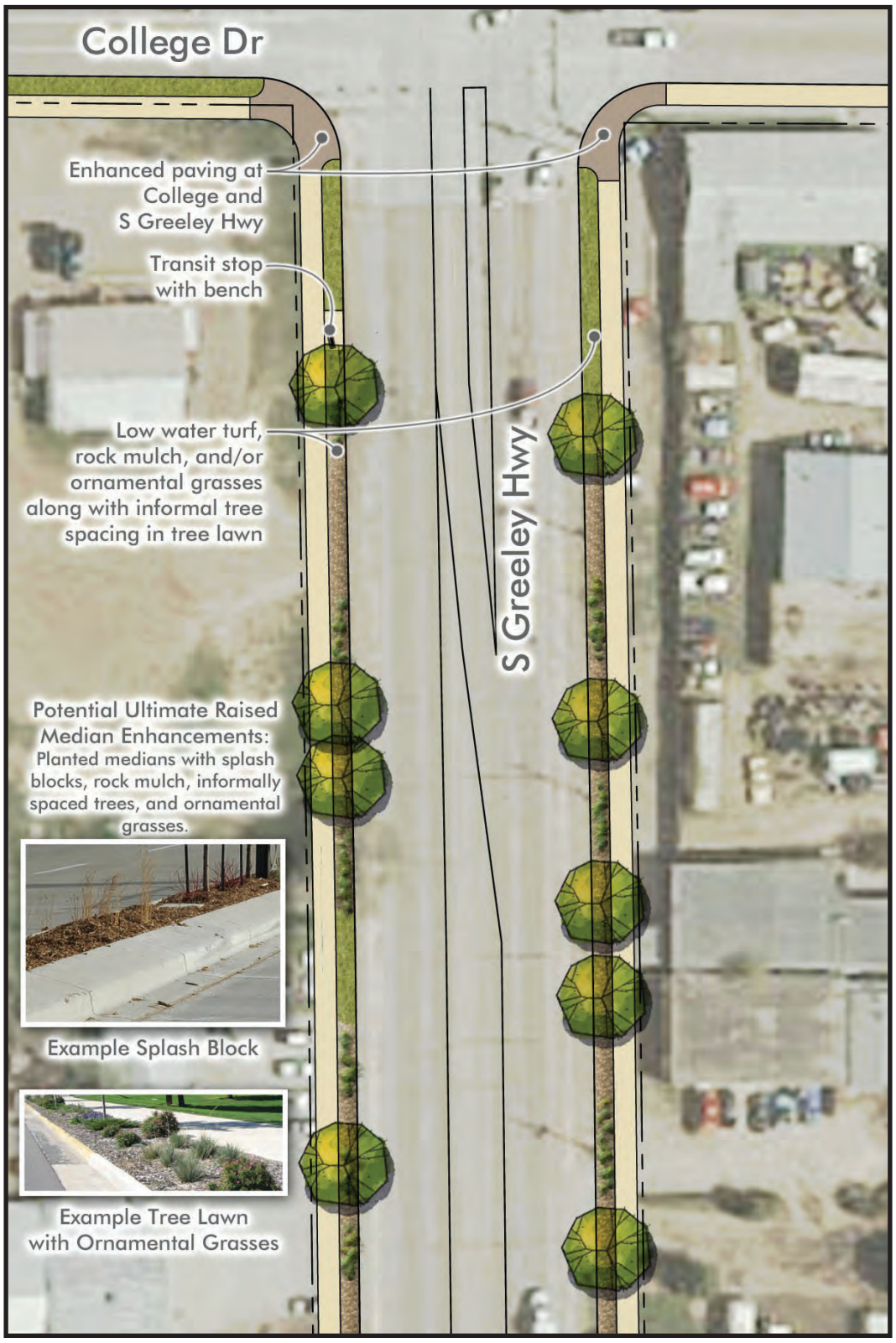
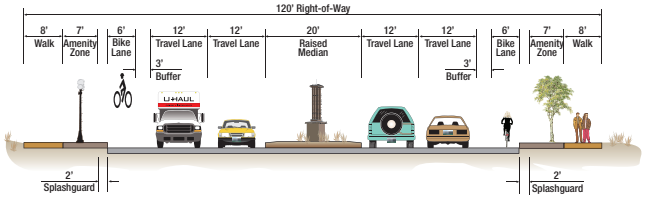
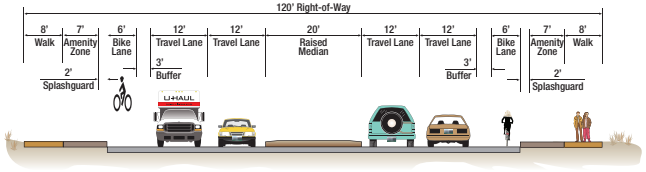
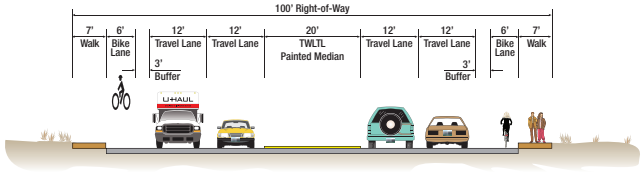
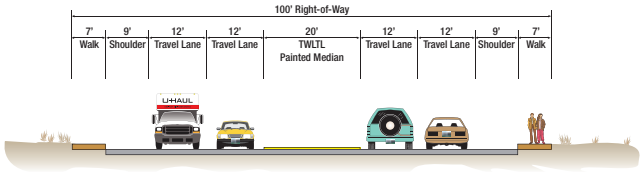
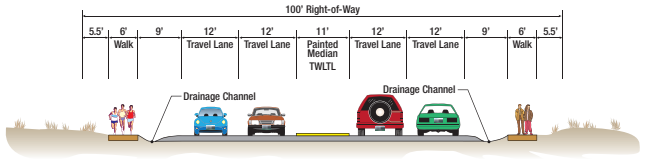

College Dr
Enhanced paving at College and S Greeley Hwy
Transit stop with bench
Low water turf, rock mulch, and/or ornamental grasses along with informal tree spacing in tree lawn
S Greeley Hwy
Potential Ultimate Raised Median Enhancements: Planted medians with splash blocks, rock mulch, informally spaced trees, and ornamental grasses.
Example Splash Block
Example Tree Lawn with Ornamental Grasses

# Segment 2
# Recommended Roadway Options

## South Greeley Highway Corridor Conceptual Plan — Figure 23

| Option | Cross Section | Vision Elements Achieved | Construction Cost | Landscape Maintenance Cost | Right-of-Way Impact (cost not included in construction cost) |
|---|---|---|---|---|---|
| **Ultimate Option**<br>Landscaping Enhancements |  | • Landscape in median and amenity zone<br>• Provides needed sidewalk connection south to Wallick<br>• Improved traffic safety with raised median<br>• Bicycle accommodation<br>• Pedestrian-friendly detached walk | $7.64M | $50,200/year | 2.42 Acres |
| **Interim Option 4**<br>Widen ROW, Add Amenity Zone |  | • Provides needed sidewalk connection south to Wallick<br>• Improved traffic safety with raised median<br>• Bicycle accommodation<br>• Pedestrian-friendly detached walk | $7.4M | $10,000/year | 2.42 Acres |
| **Interim Option 3**<br>Add Buffered Bike Lane |  | • Provides needed sidewalk connection south to Wallick<br>• Bicycle accommodation | $5.4M | $0/year | 0 Acres |
| **Interim Option 2**<br>Widen Center Turn Lane |  | • Provides needed sidewalk connection south to Wallick<br>• Added shoulder width would help to better accommodate right turn lanes | $4.9M | $0/year | 0 Acres |
| **Interim Option 1**<br>Add Interim Sidewalk(s) |  | • Provides needed detached sidewalk connection south to Wallick | $2.0M | $0/year | 0 Acres |

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## 4.3 Segment 3: Wallick Road to Terry Ranch Road

### 4.3.1 Segment Recommendations and Opportunities

**Figure 24** depicts, in map and tabular form, the recommendations and opportunities present in corridor segment 3 between Wallick Road and Terry Ranch Road. As shown, the recommendations highlight locations where strategies and tools may be implemented to further the shared corridor vision.

**Land Use** – The land area within Segment 3 is currently primarily urban transitional and rural residential west of SGH and vacant areas east. The map highlights the SGH / High Plains Road intersection as an area for potential redevelopment. PlanCheyenne has highlighted this location for a future activity center. **Figure 25** provides an example of how this property could be redeveloped to include uses of interest to the community.

**Roadway Network** – As the area south of Wallick Road is a patchwork of vacant and developed land, the roadway network possesses limited continuity both north-south and east-west. Improvements would result from extending Walterscheid Boulevard and Avenue C south from College Drive as minor arterials. **Figure 24** highlights additional general roadway linkages that would help to bring about improved continuity and connectivity in the local and collector roadway network and set the stage for future development activity in the area. As noted, these roadways should also provide sidewalks to enhance the non-motorized travel network.

**Transit and Non-motorized Travel** – It is recommended that wider shoulders (8') be provided on the outside edges of SGH to enhance safety for bicyclists and for stopped motorists.

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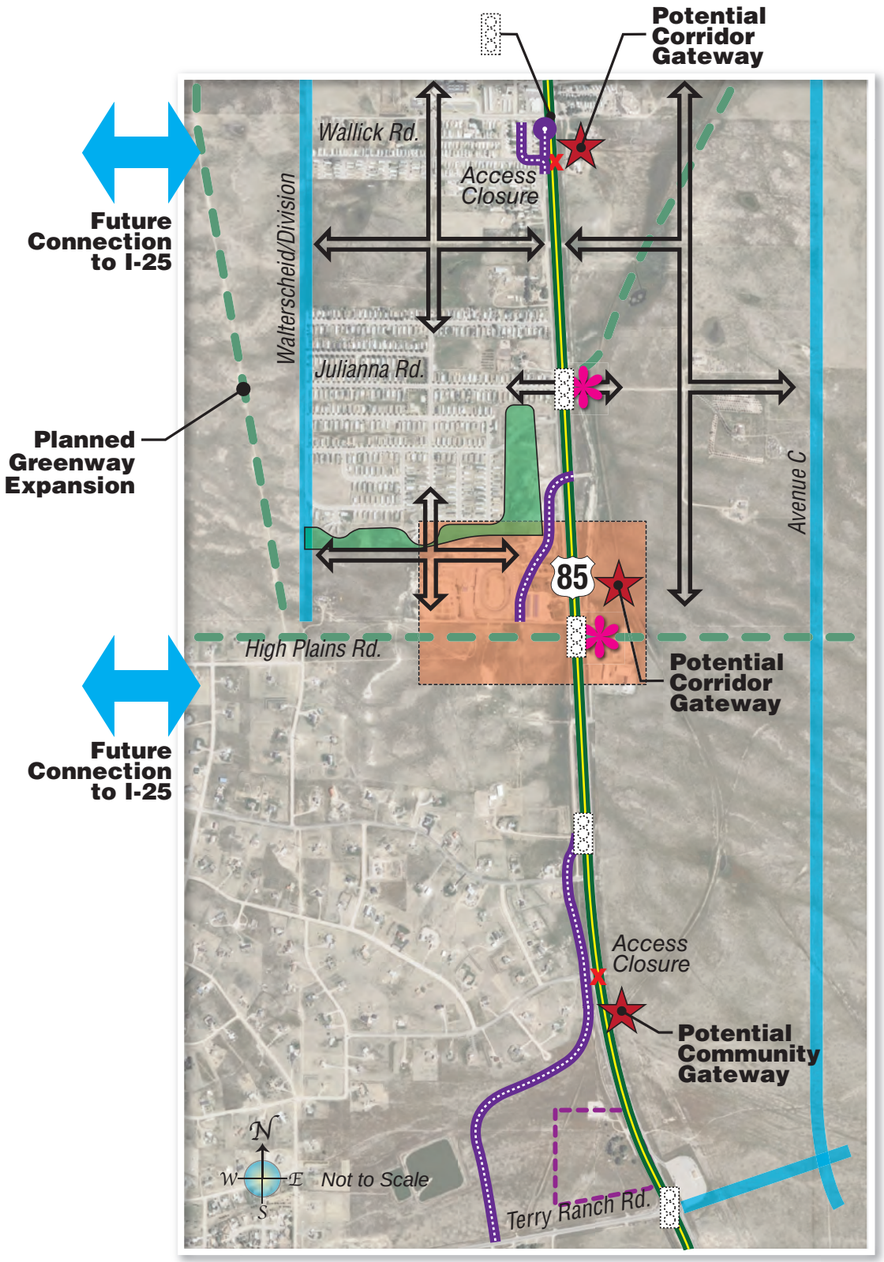


| MAP SYMBOL | RECOMMENDATION/OPPORTUNITY | PRIORITY* |
|---|---|---|
| | Opportunity area for consolidation of multiple parcels when redevelopment occurs | Mid-term |
| | Opportunity zone for park / open space | Mid-term |
| | Zoning change to mixed-use would help facilitate redevelopment | Long term |
| | Extend Walterscheid Boulevard and Avenue C as minor arterials. | Long term |
| | Develop a collector/local connection to enhance connectivity of roadway network. Include sidewalks with new roadways. | Mid-term |
| | Preserve future opportunity to increase intersection capacity at Julianna Road and High Plains Road intersections, including potential future signalization | Mid-term |
| | Widen roadway shoulders to provide space for bicyclists and enhance traffic safety | Mid-term |
| | Reconfigure frontage road to provide greater corner clearance, less frequent access to SGH and more local circulation | Mid-term |
| | Locate community and corridor gateway features | Near term |

*The priority column refers to the general timeframe within which the implementation of the recommendation should begin.

**LEGEND**

= Existing Signalized Intersection

= Potential Future Signalized Intersection

# Segment 3
# Example Access/Development Patterns

## South Greeley Highway Corridor Conceptual Plan — Figure 25

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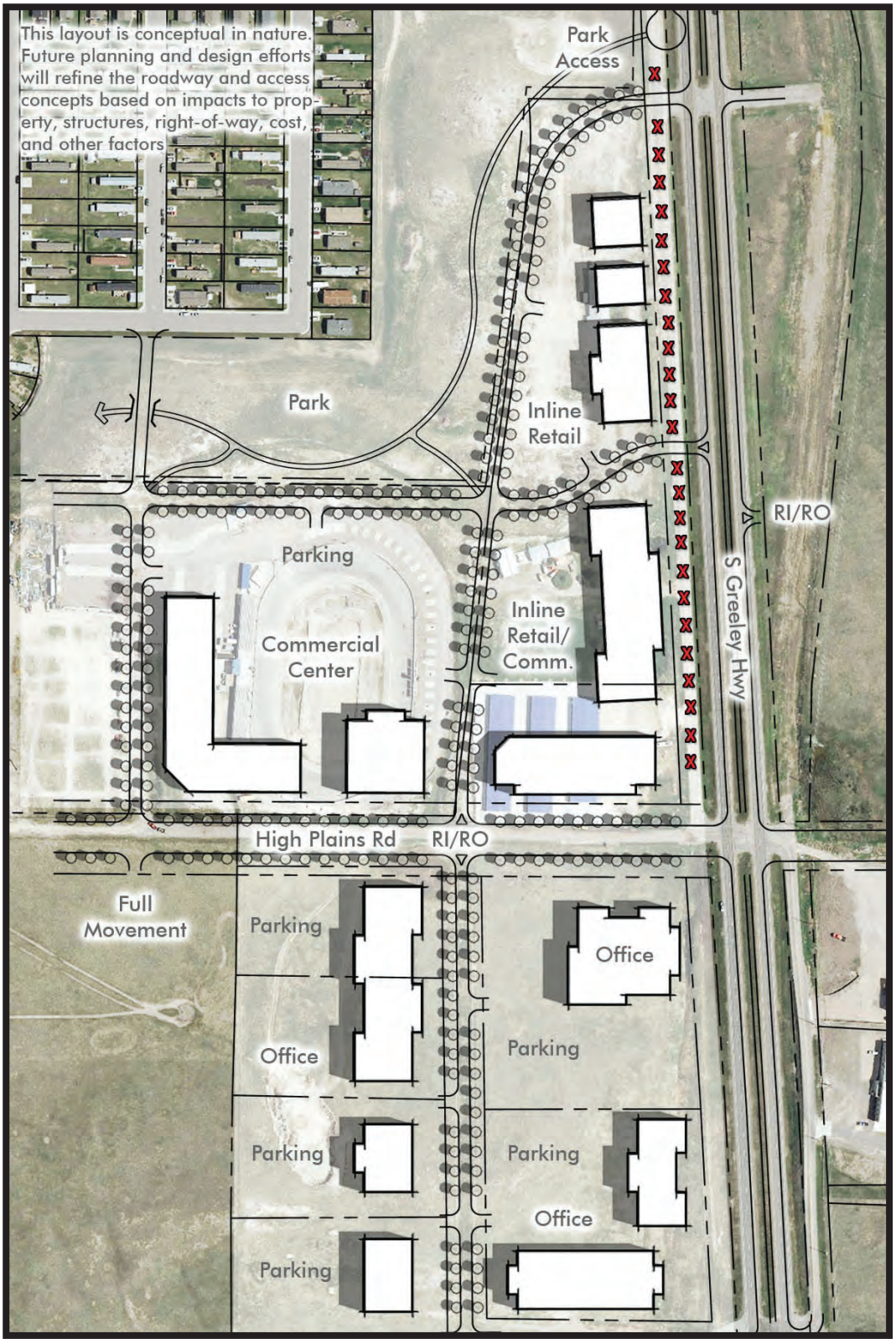

**Traffic Operations and Safety** – Several access management improvements are recommended related to the frontage road located west of SGH. The frontage road intersections with cross street should be reconfigured to provide appropriate spacing away from SGH.

**Beautification** – **Table 18** depicts recommended enhancements to be implemented within Segment 2, along with relative cost information.

### Table 18. Segment 3 Enhancement Comparisons and Recommendations

| Enhancement Type | Relative Cost | | Enhancement Recommendations |
|---|---|---|---|
| | Capital | Operations and Maintenance | Wallick Road to Terry Ranch Road |
| **Pavements** | | | |
| Grey Concrete | $$ | $ | √ |
| Colored Concrete | $$$ | $ | |
| Pavers | $$$ | $ | |
| **Parkway Landscape** | | | |
| Non-irrigated seed | $ | $$ | √ |
| Rock mulch | $$ | $$ | |
| Irrigated turf with trees | $$ | $$$ | |
| **Streetscape Amenities** | | | |
| Planter pots | $$ | $$$ | |
| Seat walls | $$$ | $ | |
| Benches | $$ | $ | |
| Trash receptacles | $$ | $$$ | |
| Bike racks | $ | $ | |
| Decorative pedestrian lights | $$$ | $$ | |
| Sculpture/columns | $$$ | $ | |
| Decorative street signs | $$ | $$ | |
| Gateway signs | $$$ | $$ | √ |

$=low relative cost, $$=mid-range relative cost, $$$=high relative cost
√=Recommended Enhancement

Examples of beautification elements that could be included are provided in **Figure 26**. In addition, **Figure 27** depicts potential community and corridor gateway features.

**Drainage** – A key consideration applicable to all recommendations in Segment 3 is the need to consider drainage needs and improvements along with any transportation improvements.

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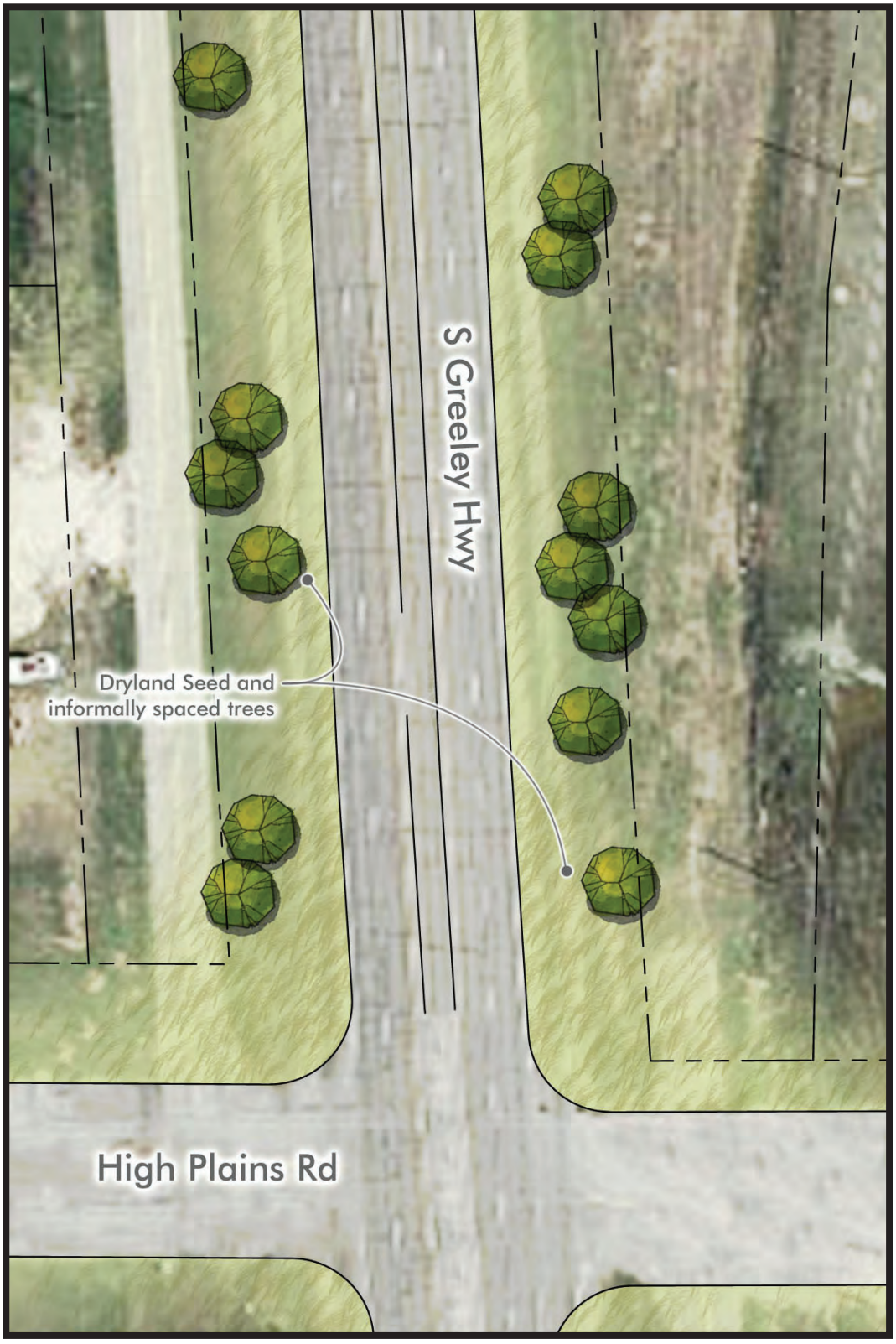
S Greeley Hwy
Dryland Seed and
informally spaced trees
High Plains Rd


Community Gateway
© 2011 Google Report a problem


Corridor Gateway
© 2011 Google Report a problem

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### 4.3.2 Prioritization

A priority has been identified for each recommendation and opportunity, depicted on **Figure 24**. Three general priority categories are provided: Near term, Mid-term and Long term. The recommendations and opportunities are prioritized based on the urgency of the need being addressed, steering committee discussion, and public and stakeholder input. The priority information indicates the 'start time' for each recommendation or opportunity. For example, the opportunity to provide park and open space areas is noted as a Mid-term priority. However, efforts to provide parks and open space are expected to continue well beyond the Near term future as opportunities arise to do so.

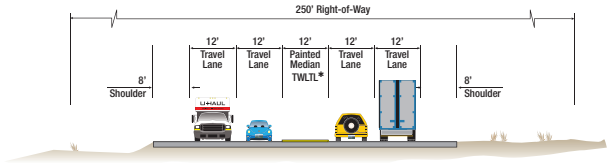
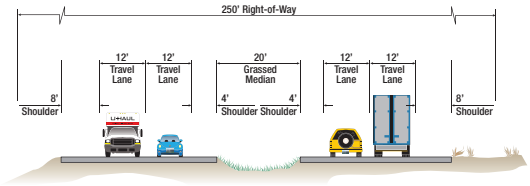
### 4.3.3 Typical Section Options

**Figure 28** provides a menu of typical sections from which to select when implementing future improvements to Segment 3. As shown, recommended improvements would provide a wider shoulder for bicyclist use and for disabled vehicles.

# Segment 3
# Recommended Roadway Options

## South Greeley Highway Corridor Conceptual Plan — Figure 28

DRAFT

| Option | Cross Section | Vision Elements Achieved | Construction Cost | Landscape Maintenance Cost | Right-of-Way Impact (cost not included in construction cost) |
|---|---|---|---|---|---|
| **Ultimate Option 1**<br>Wallick to Julianna |  | • Provides additional shoulder width, improving traffic safety and accommodating bicycles | $595,200 | Minimal | Existing R.O.W. could be narrowed by 100' or more |
| **Ultimate Option 1A**<br>Julianna to Terry Ranch |  | • Provides additional shoulder width, improving traffic safety and accommodating bicycles | $2.83M | $8,700/year | Existing R.O.W. could be narrowed by 100' or more |

## 4.4 Funding Sources

The South Greeley Highway Corridor Plan presents a multifaceted corridor vision and a wide variety of recommendations and opportunities needed to fulfill the vision. Implementation will depend on receiving funding from a similarly broad base of sources. A number of potential funding sources are highlighted as follows for further consideration. The adopted PlanCheyenne document was used as a reference.

**Grant Programs** – A growing list of grant programs are available for transportation and community enhancement projects. Grants are typically awarded through a competitive application process. Recent federal grant programs include a series of TIGER grants, and highway safety grant programs are ongoing. Winning projects tend to demonstrate a high level of local commitment to the project and show clear transportation benefits.

**Wyoming Business Council (WBC) Grant and Loan Programs** – According to their website (www.wyomingbusiness.org), the Wyoming Business Council offers a variety of grant and loan programs to help communities with economic development projects. Such programs could be researched to determine their applicability to the South Greeley Highway area.

**Surface Transportation Program (STP)** – The Surface Transportation Program consists of federal funding administered by the State of Wyoming. The STP provides flexible funding that may be used by States and localities for projects on any Federal-aid highway.

**State Highway Funding** - The State of Wyoming allocates funds from the State's 4th penny tax to each WYDOT District, and individual projects are selected for funding based on public involvement, engineering studies, and the collective judgment of the Transportation Commission and WYDOT.

**Impact Fees** - The City of Cheyenne and Laramie County can require developers to pay for improvements needed to facilitate development activities through an impact fee system.

**Taxing mechanisms** - Laramie County has the ability to impose a sales tax to fund specific, well defined projects. To utilize this funding source, county commissioners must include a project on the ballot and the ballot measure must pass with a majority vote.

# APPENDIX A TRAFFIC COUNTS

# Historic ADTs

| | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ID | LOCATION | CY2011 | 2011NB | 2011SB | 2011EB | 2011WB | CY2010 | CY2009 | CY2008 |
| 2 | 961 | SO. GREELEY N. OF FOX FARM | **28921** | **14049** | **14872** | 0 | 0 | 0 | 28179 | 28160 |
| 3 | 970 | SO. GREELEY S. OF FOX FARM | **25062** | **12221** | **12841** | 0 | 0 | 0 | 23742 | 23781 |
| 4 | 958 | SO. GREELEY N. OF ALLISON | **23288** | **10901** | **12387** | 0 | 0 | 0 | 0 | 0 |
| 5 | 966 | SO. GREELEY S. OF ALLISON | **20909** | **10522** | **10387** | 0 | 0 | 0 | 0 | 0 |
| 6 | 972 | SO. GREELEY S. OF WALLICK | **10221** | **4940** | **5281** | 0 | 0 | 0 | 0 | 9981 |
| 7 | 447 | FOX FARM W. OF SO. GREELEY | **7164** | **0** | **0** | 0 | 0 | 0 | 0 | 6751 |
| 8 | 1338 | SO. GREELEY S. OF JULIANNA | **6437** | **3387** | **3050** | 0 | 0 | 0 | 0 | 6111 |
| 9 | 962 | SO. GREELEY N. OF TERRY RANCH | **5041** | **2640** | **2401** | 0 | 0 | 0 | 0 | 4929 |
| 10 | 175 | ALLISON W. OF SO. GREELEY | **3168** | **0** | **0** | 0 | 0 | 0 | 0 | 0 |
| 11 | 995 | TERRY RANCH W. OF SO. GREELEY | **1226** | **0** | **0** | 0 | 0 | 1191 | 1306 | 0 |
| 12 | 606 | JEFFERSON W. OF SO. GREELEY | **581** | **0** | **0** | 0 | 0 | 0 | 0 | 618 |
| 13 | 179 | ARTESIAN E. OF SO. GREELEY | **527** | **0** | **0** | 0 | 0 | 123 | 0 | 0 |

| | A | B | K | L | M | N | O | P | Q | R |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ID | LOCATION | CY2007 | CY2006 | CY2005 | CY2004 | CY2003 | CY2002 | CY2001 | CY2000 |
| 2 | 961 | SO. GREELEY N. OF FOX FARM | 0 | 26897 | 21797 | 23443 | 0 | 22103 | 0 | 18439 |
| 3 | 970 | SO. GREELEY S. OF FOX FARM | 0 | 22408 | 20009 | 21565 | 0 | 22332 | 0 | 18949 |
| 4 | 958 | SO. GREELEY N. OF ALLISON | 0 | 0 | 0 | 0 | 0 | 20357 | 18468 | 15274 |
| 5 | 966 | SO. GREELEY S. OF ALLISON | 0 | 0 | 17118 | 0 | 0 | 19640 | 0 | 16709 |
| 6 | 972 | SO. GREELEY S. OF WALLICK | 0 | 0 | 8802 | 0 | 0 | 7491 | 0 | 7193 |
| 7 | 447 | FOX FARM W. OF SO. GREELEY | 0 | 0 | 6661 | 0 | 0 | 6146 | 0 | 6238 |
| 8 | 1338 | SO. GREELEY S. OF JULIANNA | 0 | 0 | 5916 | 0 | 0 | 5782 | 5217 | 4756 |
| 9 | 962 | SO. GREELEY N. OF TERRY RANCH | 0 | 0 | 4620 | 0 | 0 | 4291 | 0 | 4206 |
| 10 | 175 | ALLISON W. OF SO. GREELEY | 0 | 2435 | 0 | 0 | 1218 | 1267 | 0 | 1310 |
| 11 | 995 | TERRY RANCH W. OF SO. GREELEY | 1184 | 0 | 0 | 1713 | 0 | 1282 | 0 | 1174 |
| 12 | 606 | JEFFERSON W. OF SO. GREELEY | 0 | 0 | 600 | 0 | 0 | 638 | 0 | 660 |
| 13 | 179 | ARTESIAN E. OF SO. GREELEY | 388 | 0 | 0 | 432 | 635 | 0 | 545 | 494 |

# Historic ADTs

| | A | B | S | T | U | V | W | X | Y | Z |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ID | LOCATION | CY1999 | CY1998 | CY1997 | CY1996 | CY1995 | CY1994 | CY1993 | CY1992 |
| 2 | 961 | SO. GREELEY N. OF FOX FARM | 0 | 23829 | 0 | 0 | 19240 | 0 | 0 | 0 |
| 3 | 970 | SO. GREELEY S. OF FOX FARM | 0 | 18007 | 0 | 0 | 17137 | 895 | 17719 | 0 |
| 4 | 958 | SO. GREELEY N. OF ALLISON | 0 | 17335 | 0 | 0 | 0 | 0 | 15889 | 0 |
| 5 | 966 | SO. GREELEY S. OF ALLISON | 0 | 17264 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | 972 | SO. GREELEY S. OF WALLICK | 0 | 0 | 6076 | 0 | 0 | 0 | 0 | 0 |
| 7 | 447 | FOX FARM W. OF SO. GREELEY | 0 | 6394 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | 1338 | SO. GREELEY S. OF JULIANNA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | 962 | SO. GREELEY N. OF TERRY RANCH | 0 | 0 | 3119 | 0 | 3640 | 0 | 0 | 0 |
| 10 | 175 | ALLISON W. OF SO. GREELEY | 0 | 1459 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | 995 | TERRY RANCH W. OF SO. GREELEY | 0 | 0 | 1414 | 0 | 0 | 0 | 0 | 0 |
| 12 | 606 | JEFFERSON W. OF SO. GREELEY | 0 | 0 | 0 | 935 | 0 | 0 | 0 | 0 |
| 13 | 179 | ARTESIAN E. OF SO. GREELEY | 0 | 0 | 501 | 0 | 507 | 0 | 0 | 0 |

# Historic ADTs

| | A | B | AA | AB | AC | AD | AE | AF | AG | AH |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ID | LOCATION | CY1991 | CY1990 | CY1989 | CY1988 | CY1987 | CY1986 | CY1985 | CY1984 |
| 2 | 961 | SO. GREELEY N. OF FOX FARM | 0 | 17122 | 0 | 0 | 0 | 0 | 18100 | 0 |
| 3 | 970 | SO. GREELEY S. OF FOX FARM | 21217 | 14343 | 16554 | 14423 | 16156 | 16477 | 16198 | 0 |
| 4 | 958 | SO. GREELEY N. OF ALLISON | 17251 | 14022 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 966 | SO. GREELEY S. OF ALLISON | 0 | 12101 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | 972 | SO. GREELEY S. OF WALLICK | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | 447 | FOX FARM W. OF SO. GREELEY | 5520 | 4742 | 0 | 0 | 0 | 6306 | 6052 | 0 |
| 8 | 1338 | SO. GREELEY S. OF JULIANNA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | 962 | SO. GREELEY N. OF TERRY RANCH | 0 | 2721 | 0 | 0 | 0 | 2390 | 2575 | 0 |
| 10 | 175 | ALLISON W. OF SO. GREELEY | 1117 | 987 | 0 | 0 | 0 | 782 | 480 | 0 |
| 11 | 995 | TERRY RANCH W. OF SO. GREELEY | 0 | 772 | 0 | 0 | 0 | 719 | 664 | 0 |
| 12 | 606 | JEFFERSON W. OF SO. GREELEY | 631 | 0 | 0 | 0 | 0 | 818 | 0 | 0 |
| 13 | 179 | ARTESIAN E. OF SO. GREELEY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | A | B | AI | AJ | AK | AL |
|---|---|---|---|---|---|---|
| 1 | ID | LOCATION | CY1983 | CY1982 | CY1981 | CY1980 |
| 2 | 961 | SO. GREELEY N. OF FOX FARM | 17081 | 0 | 13660 | 0 |
| 3 | 970 | SO. GREELEY S. OF FOX FARM | 15385 | 13668 | 0 | 12275 |
| 4 | 958 | SO. GREELEY N. OF ALLISON | 0 | 0 | 0 | 0 |
| 5 | 966 | SO. GREELEY S. OF ALLISON | 0 | 0 | 0 | 0 |
| 6 | 972 | SO. GREELEY S. OF WALLICK | 0 | 0 | 2578 | 0 |
| 7 | 447 | FOX FARM W. OF SO. GREELEY | 0 | 0 | 0 | 4071 |
| 8 | 1338 | SO. GREELEY S. OF JULIANNA | 0 | 0 | 0 | 0 |
| 9 | 962 | SO. GREELEY N. OF TERRY RANCH | 2945 | 0 | 2383 | 0 |
| 10 | 175 | ALLISON W. OF SO. GREELEY | 0 | 0 | 0 | 0 |
| 11 | 995 | TERRY RANCH W. OF SO. GREELEY | 783 | 0 | 650 | 0 |
| 12 | 606 | JEFFERSON W. OF SO. GREELEY | 0 | 0 | 0 | 0 |
| 13 | 179 | ARTESIAN E. OF SO. GREELEY | 0 | 0 | 0 | 0 |

Cheyenne MPO
2101 O'Neil Ave
Cheyenne WY 82001

Counter Board: 64
Counted By: Carrol
Weather: Clear
Other: Cheyenne Counts 2007

File Name : FOXFAR~1
Site Code : 00000220
Start Date : 5/23/2007
Page No : 1

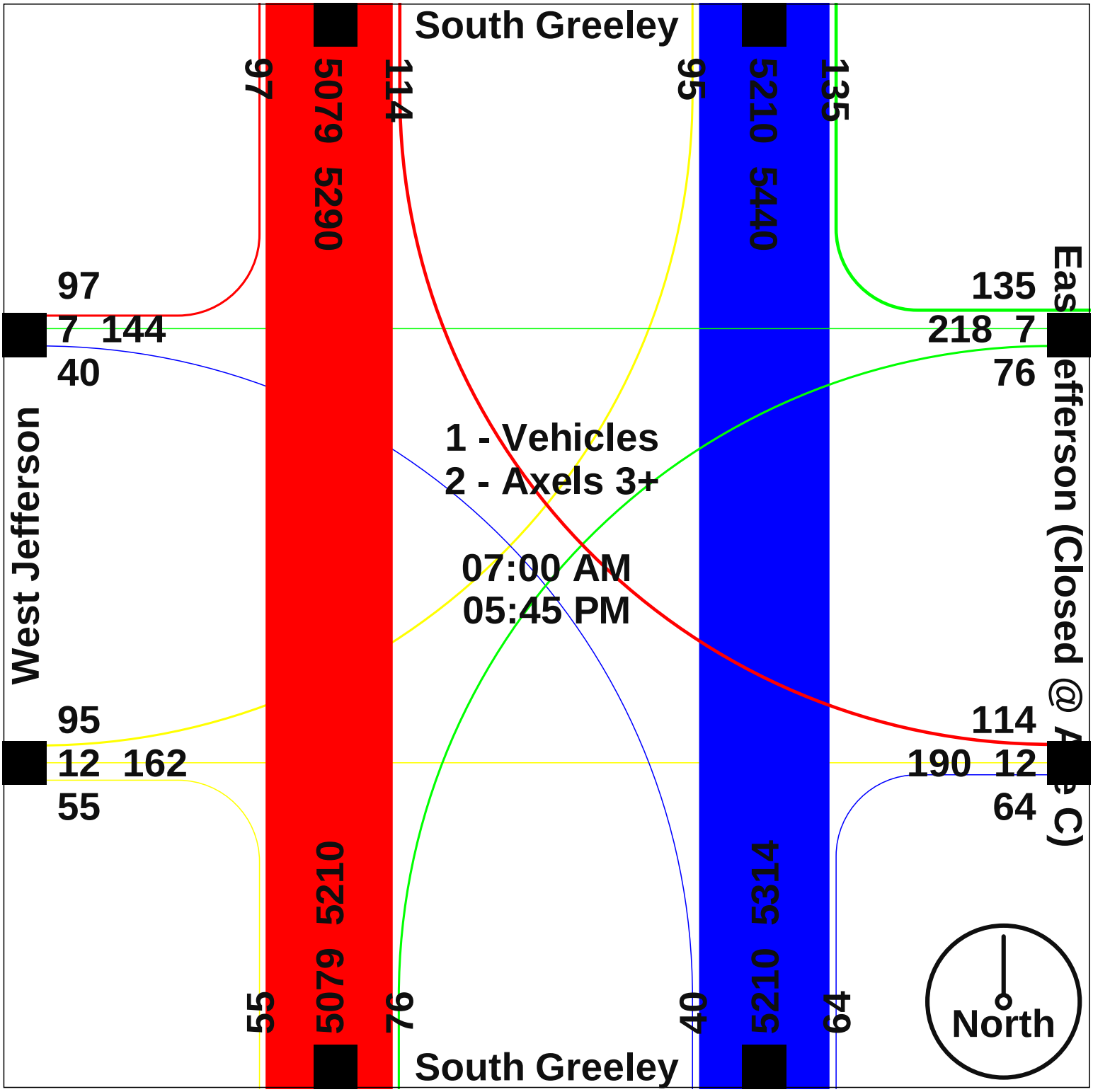
Groups Printed- Unshifted

| | U.S. Hwy 85 From North | | | | | Fox Farm Rd. From East | | | | | U.S. Hwy 85 From South | | | | | Fox Farm Rd. From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Rt | Thru | Left | Ped | App. Total | Rt | Thru | Left | Ped | App. Total | Rt | Thru | Left | Ped | App. Total | Rt | Thru | Left | Ped | App. Total | Int. Total |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | |
| 07:00 AM | 45 | 66 | 7 | 1 | 119 | 33 | 18 | 6 | 0 | 57 | 10 | 130 | 8 | 0 | 148 | 9 | 11 | 46 | 0 | 66 | 390 |
| 07:15 AM | 41 | 70 | 9 | 0 | 120 | 25 | 14 | 7 | 0 | 46 | 12 | 132 | 6 | 1 | 151 | 6 | 19 | 52 | 0 | 77 | 394 |
| 07:30 AM | 22 | 68 | 23 | 0 | 113 | 29 | 16 | 12 | 0 | 57 | 19 | 161 | 9 | 0 | 189 | 16 | 11 | 46 | 0 | 73 | 432 |
| 07:45 AM | 20 | 102 | 21 | 0 | 143 | 36 | 12 | 9 | 0 | 57 | 26 | 199 | 10 | 0 | 235 | 14 | 23 | 54 | 2 | 93 | 528 |
| Total | 128 | 306 | 60 | 1 | 495 | 123 | 60 | 34 | 0 | 217 | 67 | 622 | 33 | 1 | 723 | 45 | 64 | 198 | 2 | 309 | 1744 |
| 08:00 AM | 25 | 84 | 22 | 0 | 131 | 21 | 15 | 16 | 0 | 52 | 22 | 156 | 13 | 0 | 191 | 10 | 18 | 41 | 0 | 69 | 443 |
| 08:15 AM | 19 | 101 | 25 | 0 | 145 | 24 | 16 | 13 | 1 | 54 | 15 | 127 | 10 | 0 | 152 | 17 | 15 | 41 | 0 | 73 | 424 |
| 08:30 AM | 18 | 76 | 13 | 0 | 107 | 27 | 6 | 16 | 0 | 49 | 17 | 149 | 7 | 0 | 173 | 16 | 16 | 33 | 1 | 66 | 395 |
| 08:45 AM | 17 | 92 | 9 | 0 | 118 | 18 | 11 | 12 | 0 | 41 | 20 | 107 | 14 | 0 | 141 | 7 | 9 | 28 | 0 | 44 | 344 |
| Total | 79 | 353 | 69 | 0 | 501 | 90 | 48 | 57 | 1 | 196 | 74 | 539 | 44 | 0 | 657 | 50 | 58 | 143 | 1 | 252 | 1606 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM | 18 | 119 | 16 | 0 | 153 | 19 | 17 | 21 | 0 | 57 | 15 | 112 | 10 | 0 | 137 | 14 | 13 | 28 | 0 | 55 | 402 |
| 11:15 AM | 17 | 86 | 16 | 0 | 119 | 16 | 12 | 24 | 0 | 52 | 14 | 125 | 11 | 0 | 150 | 11 | 9 | 20 | 0 | 40 | 361 |
| 11:30 AM | 25 | 134 | 19 | 0 | 178 | 21 | 22 | 38 | 0 | 81 | 26 | 109 | 13 | 0 | 148 | 18 | 7 | 28 | 0 | 53 | 460 |
| 11:45 AM | 21 | 150 | 20 | 1 | 192 | 32 | 11 | 20 | 1 | 64 | 16 | 187 | 15 | 1 | 219 | 17 | 10 | 42 | 1 | 70 | 545 |
| Total | 81 | 489 | 71 | 1 | 642 | 88 | 62 | 103 | 1 | 254 | 71 | 533 | 49 | 1 | 654 | 60 | 39 | 118 | 1 | 218 | 1768 |
| 12:00 PM | 23 | 159 | 24 | 0 | 206 | 26 | 19 | 35 | 1 | 81 | 29 | 131 | 8 | 0 | 168 | 16 | 19 | 31 | 0 | 66 | 521 |
| 12:15 PM | 25 | 122 | 19 | 0 | 166 | 38 | 15 | 33 | 0 | 86 | 24 | 164 | 10 | 0 | 198 | 17 | 9 | 23 | 1 | 50 | 500 |
| 12:30 PM | 21 | 125 | 18 | 0 | 164 | 36 | 14 | 33 | 0 | 83 | 22 | 151 | 11 | 0 | 184 | 9 | 12 | 25 | 4 | 50 | 481 |
| 12:45 PM | 25 | 137 | 18 | 0 | 180 | 34 | 20 | 32 | 3 | 89 | 32 | 177 | 8 | 0 | 217 | 21 | 5 | 27 | 3 | 56 | 542 |
| Total | 94 | 543 | 79 | 0 | 716 | 134 | 68 | 133 | 4 | 339 | 107 | 623 | 37 | 0 | 767 | 63 | 45 | 106 | 8 | 222 | 2044 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 29 | 132 | 21 | 0 | 182 | 17 | 21 | 27 | 0 | 65 | 11 | 141 | 7 | 2 | 161 | 18 | 12 | 27 | 0 | 57 | 465 |
| 03:15 PM | 28 | 131 | 14 | 0 | 173 | 21 | 12 | 33 | 0 | 66 | 22 | 158 | 17 | 0 | 197 | 19 | 22 | 25 | 2 | 68 | 504 |
| 03:30 PM | 19 | 162 | 31 | 0 | 212 | 31 | 23 | 22 | 0 | 76 | 23 | 159 | 15 | 0 | 197 | 35 | 16 | 60 | 0 | 111 | 596 |
| 03:45 PM | 34 | 179 | 21 | 0 | 234 | 29 | 26 | 45 | 0 | 100 | 15 | 141 | 8 | 2 | 166 | 21 | 16 | 43 | 0 | 80 | 580 |
| Total | 110 | 604 | 87 | 0 | 801 | 98 | 82 | 127 | 0 | 307 | 71 | 599 | 47 | 4 | 721 | 93 | 66 | 155 | 2 | 316 | 2145 |
| 04:00 PM | 40 | 194 | 26 | 0 | 260 | 24 | 19 | 21 | 0 | 64 | 21 | 166 | 7 | 0 | 194 | 19 | 12 | 39 | 1 | 71 | 589 |
| 04:15 PM | 28 | 205 | 26 | 0 | 259 | 23 | 24 | 37 | 0 | 84 | 22 | 188 | 10 | 0 | 220 | 27 | 20 | 34 | 1 | 82 | 645 |
| 04:30 PM | 17 | 199 | 27 | 0 | 243 | 23 | 17 | 36 | 1 | 77 | 36 | 153 | 14 | 0 | 203 | 39 | 18 | 50 | 3 | 110 | 633 |
| 04:45 PM | 35 | 163 | 28 | 1 | 227 | 24 | 15 | 35 | 0 | 74 | 39 | 165 | 6 | 2 | 212 | 29 | 24 | 33 | 1 | 87 | 600 |
| Total | 120 | 761 | 107 | 1 | 989 | 94 | 75 | 129 | 1 | 299 | 118 | 672 | 37 | 2 | 829 | 114 | 74 | 156 | 6 | 350 | 2467 |
| 05:00 PM | 46 | 247 | 31 | 0 | 324 | 32 | 23 | 37 | 1 | 93 | 26 | 164 | 13 | 1 | 204 | 19 | 22 | 39 | 1 | 81 | 702 |
| 05:15 PM | 62 | 220 | 31 | 0 | 313 | 25 | 27 | 59 | 0 | 111 | 38 | 179 | 13 | 0 | 230 | 28 | 15 | 59 | 0 | 102 | 756 |
| 05:30 PM | 50 | 189 | 20 | 0 | 259 | 35 | 20 | 46 | 0 | 101 | 44 | 142 | 14 | 0 | 200 | 19 | 16 | 45 | 0 | 80 | 640 |
| 05:45 PM | 45 | 173 | 21 | 1 | 240 | 20 | 16 | 32 | 0 | 68 | 33 | 151 | 15 | 0 | 199 | 19 | 19 | 45 | 1 | 84 | 591 |
| Total | 203 | 829 | 103 | 1 | 1136 | 112 | 86 | 174 | 1 | 373 | 141 | 636 | 55 | 1 | 833 | 85 | 72 | 188 | 2 | 347 | 2689 |
| Grand Total | 815 | 3885 | 576 | 4 | 5280 | 739 | 481 | 757 | 8 | 1985 | 649 | 4224 | 302 | 9 | 5184 | 510 | 418 | 1064 | 22 | 2014 | 14463 |
| Apprch % | 15.4 | 73.6 | 10.9 | 0.1 | | 37.2 | 24.2 | 38.1 | 0.4 | | 12.5 | 81.5 | 5.8 | 0.2 | | 25.3 | 20.8 | 52.8 | 1.1 | | |
| Total % | 5.6 | 26.9 | 4.0 | 0.0 | 36.5 | 5.1 | 3.3 | 5.2 | 0.1 | 13.7 | 4.5 | 29.2 | 2.1 | 0.1 | 35.8 | 3.5 | 2.9 | 7.4 | 0.2 | 13.9 | |

Cheyenne MPO
2101 O'Neil Ave
Cheyenne WY 82001

Counter:
Counted By:JSims
Weather:Sunny
Other: east leg Closed to thru traffic

File Name : SGREEL~1
Site Code : 06152011
Start Date : 6/15/2011
Page No : 1



Cheyenne MPO
2101 O'Neil Ave
Cheyenne WY 82001

Counter:
Counted By:JSims
Weather:Sunny
Other: east leg Closed to thru traffic

File Name : SGREEL~1
Site Code : 06152011
Start Date : 6/15/2011
Page No : 1

Groups Printed- Vehicles

| | South Greeley From North | | | | | East Jefferson (Closed @ Ave C) From East | | | | | South Greeley From South | | | | | West Jefferson From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | |
| 07:00 AM | 1 | 89 | 0 | 0 | 90 | 2 | 0 | 1 | 0 | 3 | 0 | 123 | 0 | 0 | 123 | 0 | 0 | 0 | 0 | 0 | 216 |
| 07:15 AM | 0 | 105 | 1 | 0 | 106 | 2 | 1 | 1 | 0 | 4 | 0 | 159 | 2 | 0 | 161 | 2 | 0 | 0 | 0 | 2 | 273 |
| 07:30 AM | 2 | 119 | 0 | 0 | 121 | 3 | 0 | 2 | 0 | 5 | 0 | 249 | 2 | 0 | 251 | 0 | 0 | 0 | 0 | 0 | 377 |
| 07:45 AM | 2 | 120 | 0 | 2 | 124 | 5 | 0 | 5 | 0 | 10 | 2 | 251 | 0 | 0 | 253 | 2 | 0 | 5 | 0 | 7 | 394 |
| Total | 5 | 433 | 1 | 2 | 441 | 12 | 1 | 9 | 0 | 22 | 2 | 782 | 4 | 0 | 788 | 4 | 0 | 5 | 0 | 9 | 1260 |
| 08:00 AM | 3 | 117 | 1 | 0 | 121 | 4 | 0 | 3 | 0 | 7 | 0 | 149 | 0 | 0 | 149 | 0 | 0 | 0 | 0 | 0 | 277 |
| 08:15 AM | 5 | 85 | 2 | 1 | 93 | 5 | 0 | 1 | 0 | 6 | 3 | 133 | 2 | 0 | 138 | 0 | 0 | 2 | 0 | 2 | 239 |
| 08:30 AM | 1 | 107 | 1 | 0 | 109 | 5 | 1 | 2 | 0 | 8 | 1 | 170 | 0 | 0 | 171 | 1 | 0 | 1 | 0 | 2 | 290 |
| 08:45 AM | 1 | 92 | 1 | 2 | 96 | 3 | 0 | 2 | 0 | 5 | 0 | 164 | 1 | 0 | 165 | 1 | 0 | 2 | 0 | 3 | 269 |
| Total | 10 | 401 | 5 | 3 | 419 | 17 | 1 | 8 | 0 | 26 | 4 | 616 | 3 | 0 | 623 | 2 | 0 | 5 | 0 | 7 | 1075 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM | 3 | 168 | 6 | 0 | 177 | 10 | 0 | 3 | 0 | 13 | 4 | 182 | 2 | 0 | 188 | 2 | 0 | 8 | 0 | 10 | 388 |
| 11:15 AM | 2 | 158 | 3 | 0 | 163 | 4 | 0 | 1 | 0 | 5 | 5 | 171 | 1 | 0 | 177 | 3 | 0 | 3 | 0 | 6 | 351 |
| 11:30 AM | 2 | 162 | 2 | 1 | 167 | 5 | 1 | 2 | 0 | 8 | 0 | 163 | 0 | 0 | 163 | 3 | 0 | 1 | 0 | 4 | 342 |
| 11:45 AM | 1 | 149 | 5 | 1 | 156 | 7 | 0 | 1 | 0 | 8 | 0 | 186 | 1 | 0 | 187 | 1 | 1 | 3 | 0 | 5 | 356 |
| Total | 8 | 637 | 16 | 2 | 663 | 26 | 1 | 7 | 0 | 34 | 9 | 702 | 4 | 0 | 715 | 9 | 1 | 15 | 0 | 25 | 1437 |
| 12:00 PM | 3 | 173 | 2 | 0 | 178 | 4 | 0 | 1 | 0 | 5 | 0 | 207 | 2 | 0 | 209 | 2 | 0 | 7 | 0 | 9 | 401 |
| 12:15 PM | 6 | 188 | 2 | 0 | 196 | 5 | 0 | 2 | 0 | 7 | 3 | 213 | 1 | 0 | 217 | 2 | 0 | 3 | 0 | 5 | 425 |
| 12:30 PM | 6 | 166 | 5 | 2 | 179 | 4 | 0 | 3 | 0 | 7 | 4 | 202 | 0 | 0 | 206 | 2 | 2 | 3 | 0 | 7 | 399 |
| 12:45 PM | 1 | 192 | 7 | 1 | 201 | 5 | 1 | 3 | 0 | 9 | 2 | 203 | 3 | 3 | 211 | 6 | 0 | 5 | 0 | 11 | 432 |
| Total | 16 | 719 | 16 | 3 | 754 | 18 | 1 | 9 | 0 | 28 | 9 | 825 | 6 | 3 | 843 | 12 | 2 | 18 | 0 | 32 | 1657 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 1 | 187 | 7 | 0 | 195 | 3 | 0 | 3 | 1 | 7 | 7 | 206 | 1 | 0 | 214 | 4 | 0 | 4 | 0 | 8 | 424 |
| 03:15 PM | 0 | 190 | 6 | 0 | 196 | 7 | 0 | 1 | 0 | 8 | 4 | 136 | 5 | 0 | 145 | 0 | 2 | 2 | 0 | 4 | 353 |
| 03:30 PM | 4 | 234 | 4 | 1 | 243 | 10 | 0 | 3 | 0 | 13 | 4 | 177 | 1 | 3 | 185 | 3 | 0 | 7 | 1 | 11 | 452 |
| 03:45 PM | 7 | 228 | 3 | 5 | 243 | 4 | 0 | 3 | 0 | 7 | 1 | 203 | 0 | 0 | 204 | 5 | 0 | 10 | 0 | 15 | 469 |
| Total | 12 | 839 | 20 | 6 | 877 | 24 | 0 | 10 | 1 | 35 | 16 | 722 | 7 | 3 | 748 | 12 | 2 | 23 | 1 | 38 | 1698 |
| 04:00 PM | 6 | 219 | 2 | 2 | 229 | 1 | 1 | 1 | 0 | 3 | 2 | 192 | 2 | 0 | 196 | 4 | 4 | 7 | 0 | 15 | 443 |
| 04:15 PM | 9 | 220 | 1 | 0 | 230 | 6 | 0 | 6 | 0 | 12 | 1 | 183 | 1 | 1 | 186 | 0 | 0 | 2 | 0 | 2 | 430 |
| 04:30 PM | 11 | 248 | 8 | 0 | 267 | 7 | 1 | 0 | 0 | 8 | 5 | 205 | 0 | 0 | 210 | 1 | 0 | 6 | 0 | 7 | 492 |
| 04:45 PM | 7 | 229 | 6 | 0 | 242 | 6 | 0 | 10 | 0 | 16 | 3 | 215 | 4 | 0 | 222 | 1 | 0 | 4 | 0 | 5 | 485 |
| Total | 33 | 916 | 17 | 2 | 968 | 20 | 2 | 17 | 0 | 39 | 11 | 795 | 7 | 1 | 814 | 6 | 4 | 19 | 0 | 29 | 1850 |
| 05:00 PM | 4 | 296 | 6 | 0 | 306 | 3 | 0 | 2 | 0 | 5 | 3 | 194 | 2 | 0 | 199 | 2 | 0 | 4 | 1 | 7 | 517 |
| 05:15 PM | 4 | 299 | 14 | 5 | 322 | 3 | 1 | 3 | 0 | 7 | 5 | 197 | 3 | 0 | 205 | 2 | 1 | 1 | 0 | 4 | 538 |
| 05:30 PM | 3 | 268 | 12 | 2 | 285 | 4 | 0 | 3 | 0 | 7 | 4 | 156 | 3 | 2 | 165 | 4 | 1 | 2 | 1 | 8 | 465 |
| 05:45 PM | 2 | 232 | 5 | 0 | 239 | 2 | 0 | 5 | 0 | 7 | 1 | 149 | 1 | 0 | 151 | 0 | 1 | 1 | 1 | 3 | 400 |
| Total | 13 | 1095 | 37 | 7 | 1152 | 12 | 1 | 13 | 0 | 26 | 13 | 696 | 9 | 2 | 720 | 8 | 3 | 8 | 3 | 22 | 1920 |
| Grand Total | 97 | 5040 | 112 | 25 | 5274 | 129 | 7 | 73 | 1 | 210 | 64 | 5138 | 40 | 9 | 5251 | 53 | 12 | 93 | 4 | 162 | 10897 |
| Apprch % | 1.8 | 95.6 | 2.1 | 0.5 | | 61.4 | 3.3 | 34.8 | 0.5 | | 1.2 | 97.8 | 0.8 | 0.2 | | 32.7 | 7.4 | 57.4 | 2.5 | | |
| Total % | 0.9 | 46.3 | 1.0 | 0.2 | 48.4 | 1.2 | 0.1 | 0.7 | 0.0 | 1.9 | 0.6 | 47.2 | 0.4 | 0.1 | 48.2 | 0.5 | 0.1 | 0.9 | 0.0 | 1.5 | |

Cheyenne MPO
2101 O'Neil Ave
Cheyenne WY 82001

Counter:
Counted By:JSims
Weather:Sunny
Other:First Driveway South of WJefferson

File Name : SGREEL~1
Site Code : 06152011
Start Date : 6/15/2011
Page No : 1

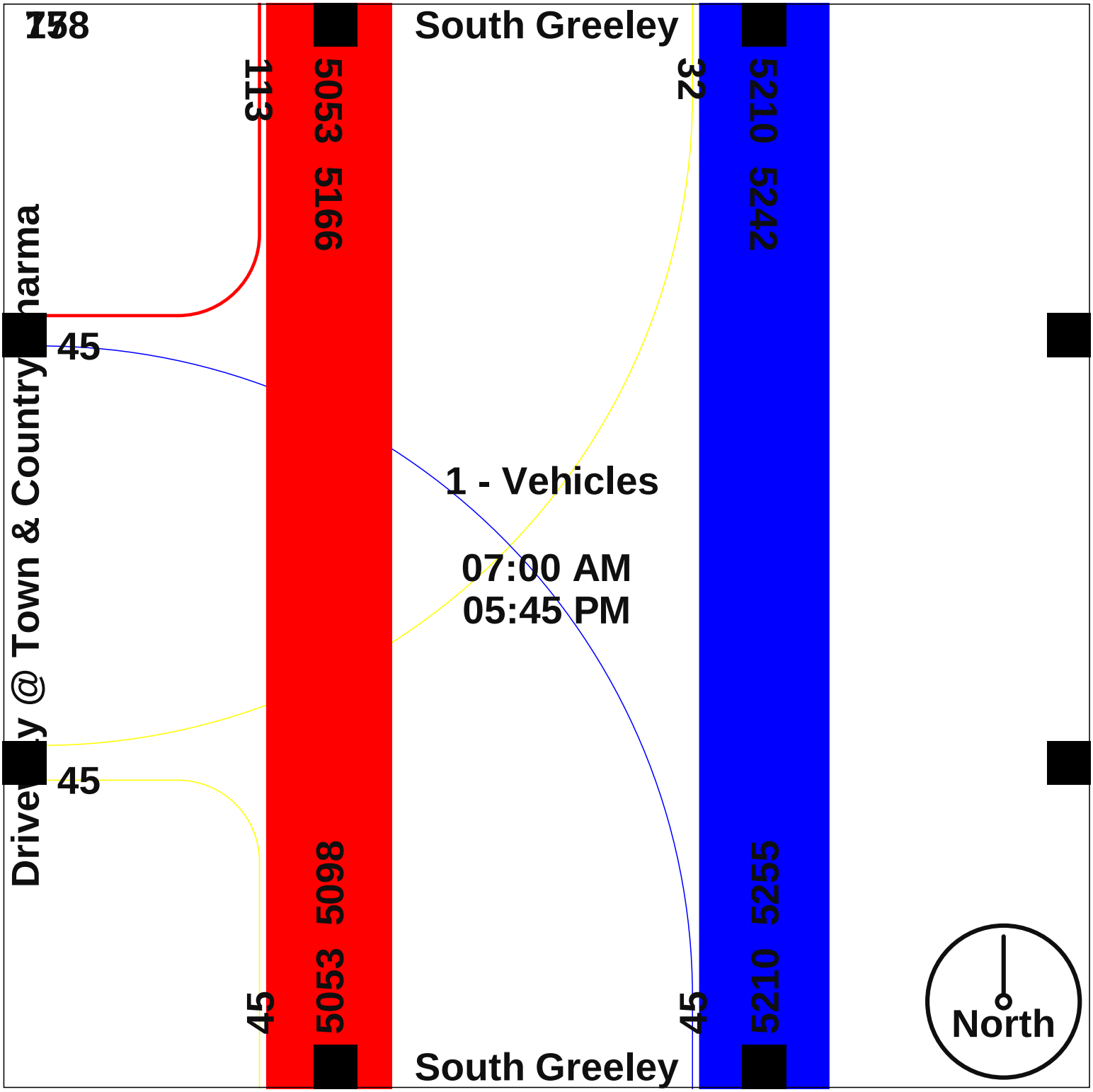
Groups Printed- Vehicles

| | South Greeley From North | | | | | From East | | | | | South Greeley From South | | | | | Driveway @ Town & Country Pharma From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | |
| 07:00 AM | 0 | 90 | 0 | 0 | 90 | 0 | 0 | 0 | 0 | 0 | 0 | 123 | 0 | 0 | 123 | 1 | 0 | 0 | 0 | 1 | 214 |
| 07:15 AM | 2 | 106 | 0 | 0 | 108 | 0 | 0 | 0 | 0 | 0 | 0 | 160 | 1 | 0 | 161 | 1 | 0 | 1 | 0 | 2 | 271 |
| 07:30 AM | 2 | 119 | 0 | 0 | 121 | 0 | 0 | 0 | 0 | 0 | 0 | 251 | 2 | 0 | 253 | 1 | 0 | 0 | 0 | 1 | 375 |
| 07:45 AM | 3 | 124 | 0 | 0 | 127 | 0 | 0 | 0 | 0 | 0 | 0 | 253 | 2 | 0 | 255 | 2 | 0 | 0 | 0 | 2 | 384 |
| Total | 7 | 439 | 0 | 0 | 446 | 0 | 0 | 0 | 0 | 0 | 0 | 787 | 5 | 0 | 792 | 5 | 0 | 1 | 0 | 6 | 1244 |
| 08:00 AM | 0 | 120 | 0 | 0 | 120 | 0 | 0 | 0 | 0 | 0 | 0 | 149 | 0 | 0 | 149 | 0 | 0 | 0 | 0 | 0 | 269 |
| 08:15 AM | 1 | 85 | 0 | 0 | 86 | 0 | 0 | 0 | 0 | 0 | 0 | 138 | 1 | 0 | 139 | 1 | 0 | 0 | 0 | 1 | 226 |
| 08:30 AM | 1 | 109 | 0 | 0 | 110 | 0 | 0 | 0 | 0 | 0 | 0 | 171 | 0 | 0 | 171 | 1 | 0 | 0 | 0 | 1 | 282 |
| 08:45 AM | 2 | 93 | 0 | 0 | 95 | 0 | 0 | 0 | 0 | 0 | 0 | 163 | 2 | 0 | 165 | 1 | 0 | 2 | 0 | 3 | 263 |
| Total | 4 | 407 | 0 | 0 | 411 | 0 | 0 | 0 | 0 | 0 | 0 | 621 | 3 | 0 | 624 | 3 | 0 | 2 | 0 | 5 | 1040 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM | 6 | 167 | 0 | 0 | 173 | 0 | 0 | 0 | 0 | 0 | 0 | 188 | 1 | 0 | 189 | 2 | 0 | 0 | 0 | 2 | 364 |
| 11:15 AM | 9 | 153 | 0 | 0 | 162 | 0 | 0 | 0 | 0 | 0 | 0 | 175 | 3 | 0 | 178 | 3 | 0 | 2 | 0 | 5 | 345 |
| 11:30 AM | 5 | 162 | 0 | 0 | 167 | 0 | 0 | 0 | 0 | 0 | 0 | 163 | 2 | 0 | 165 | 0 | 0 | 0 | 0 | 0 | 332 |
| 11:45 AM | 5 | 146 | 0 | 0 | 151 | 0 | 0 | 0 | 0 | 0 | 0 | 186 | 1 | 0 | 187 | 2 | 0 | 1 | 0 | 3 | 341 |
| Total | 25 | 628 | 0 | 0 | 653 | 0 | 0 | 0 | 0 | 0 | 0 | 712 | 7 | 0 | 719 | 7 | 0 | 3 | 0 | 10 | 1382 |
| 12:00 PM | 6 | 170 | 0 | 0 | 176 | 0 | 0 | 0 | 0 | 0 | 0 | 208 | 1 | 0 | 209 | 1 | 0 | 1 | 0 | 2 | 387 |
| 12:15 PM | 2 | 190 | 0 | 0 | 192 | 0 | 0 | 0 | 0 | 0 | 0 | 216 | 2 | 0 | 218 | 2 | 0 | 1 | 0 | 3 | 413 |
| 12:30 PM | 5 | 166 | 0 | 0 | 171 | 0 | 0 | 0 | 0 | 0 | 0 | 204 | 1 | 0 | 205 | 1 | 0 | 2 | 0 | 3 | 379 |
| 12:45 PM | 4 | 197 | 0 | 0 | 201 | 0 | 0 | 0 | 0 | 0 | 0 | 206 | 1 | 0 | 207 | 3 | 0 | 2 | 0 | 5 | 413 |
| Total | 17 | 723 | 0 | 0 | 740 | 0 | 0 | 0 | 0 | 0 | 0 | 834 | 5 | 0 | 839 | 7 | 0 | 6 | 0 | 13 | 1592 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 3 | 191 | 0 | 0 | 194 | 0 | 0 | 0 | 0 | 0 | 0 | 211 | 1 | 0 | 212 | 1 | 0 | 3 | 0 | 4 | 410 |
| 03:15 PM | 3 | 188 | 0 | 0 | 191 | 0 | 0 | 0 | 0 | 0 | 0 | 145 | 2 | 0 | 147 | 1 | 0 | 0 | 0 | 1 | 339 |
| 03:30 PM | 8 | 232 | 0 | 0 | 240 | 0 | 0 | 0 | 0 | 0 | 0 | 180 | 6 | 0 | 186 | 2 | 0 | 2 | 0 | 4 | 430 |
| 03:45 PM | 9 | 227 | 0 | 0 | 236 | 0 | 0 | 0 | 0 | 0 | 0 | 202 | 2 | 0 | 204 | 3 | 0 | 2 | 0 | 5 | 445 |
| Total | 23 | 838 | 0 | 0 | 861 | 0 | 0 | 0 | 0 | 0 | 0 | 738 | 11 | 0 | 749 | 7 | 0 | 7 | 0 | 14 | 1624 |
| 04:00 PM | 5 | 219 | 0 | 0 | 224 | 0 | 0 | 0 | 0 | 0 | 0 | 195 | 3 | 0 | 198 | 1 | 0 | 1 | 0 | 2 | 424 |
| 04:15 PM | 7 | 219 | 0 | 0 | 226 | 0 | 0 | 0 | 0 | 0 | 0 | 183 | 1 | 0 | 184 | 2 | 0 | 2 | 0 | 4 | 414 |
| 04:30 PM | 6 | 243 | 0 | 0 | 249 | 0 | 0 | 0 | 0 | 0 | 0 | 209 | 2 | 0 | 211 | 3 | 0 | 1 | 0 | 4 | 464 |
| 04:45 PM | 5 | 235 | 0 | 0 | 240 | 0 | 0 | 0 | 0 | 0 | 0 | 219 | 2 | 0 | 221 | 0 | 0 | 3 | 0 | 3 | 464 |
| Total | 23 | 916 | 0 | 0 | 939 | 0 | 0 | 0 | 0 | 0 | 0 | 806 | 8 | 0 | 814 | 6 | 0 | 7 | 0 | 13 | 1766 |
| 05:00 PM | 4 | 296 | 0 | 0 | 300 | 0 | 0 | 0 | 0 | 0 | 0 | 198 | 1 | 0 | 199 | 3 | 0 | 1 | 0 | 4 | 503 |
| 05:15 PM | 3 | 301 | 0 | 0 | 304 | 0 | 0 | 0 | 0 | 0 | 0 | 203 | 3 | 0 | 206 | 3 | 0 | 2 | 0 | 5 | 515 |
| 05:30 PM | 4 | 271 | 0 | 0 | 275 | 0 | 0 | 0 | 0 | 0 | 0 | 161 | 1 | 0 | 162 | 2 | 0 | 2 | 0 | 4 | 441 |
| 05:45 PM | 3 | 234 | 0 | 0 | 237 | 0 | 0 | 0 | 0 | 0 | 0 | 150 | 1 | 0 | 151 | 2 | 0 | 1 | 0 | 3 | 391 |
| Total | 14 | 1102 | 0 | 0 | 1116 | 0 | 0 | 0 | 0 | 0 | 0 | 712 | 6 | 0 | 718 | 10 | 0 | 6 | 0 | 16 | 1850 |
| Grand Total | 113 | 5053 | 0 | 0 | 5166 | 0 | 0 | 0 | 0 | 0 | 0 | 5210 | 45 | 0 | 5255 | 45 | 0 | 32 | 0 | 77 | 10498 |
| Apprch % | 2.2 | 97.8 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 99.1 | 0.9 | 0.0 | | 58.4 | 0.0 | 41.6 | 0.0 | | |
| Total % | 1.1 | 48.1 | 0.0 | 0.0 | 49.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 49.6 | 0.4 | 0.0 | 50.1 | 0.4 | 0.0 | 0.3 | 0.0 | 0.7 | |

Cheyenne MPO
2101 O'Neil Ave
Cheyenne WY 82001

Counter:
Counted By:JSims
Weather:Sunny
Other:First Driveway South of WJefferson

File Name : SGREEL~1
Site Code : 06152011
Start Date : 6/15/2011
Page No : 1



Cheyenne MPO
2101 O'Neil Ave
Cheyenne WY 82001

Counter Board: 64
Counted By: carrol
Weather: clear
Other: cheyenne counts 2007

File Name : ALLISO~1
Site Code : 00000238
Start Date : 4/24/2007
Page No : 1

Groups Printed- Unshifted

| | U.S. Hwy 85 From North | | | | | Allison Rd From East | | | | | U.S. Hwy 85 From South | | | | | Allison Rd From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Rt | Thru | Left | Ped | App. Total | Rt | Thru | Left | Ped | App. Total | Rt | Thru | Left | Ped | App. Total | Rt | Thru | Left | Ped | App. Total | Int. Total |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | |
| 07:00 AM | 7 | 49 | 4 | 0 | 60 | 2 | 5 | 1 | 0 | 8 | 1 | 109 | 8 | 0 | 118 | 3 | 1 | 15 | 0 | 19 | 205 |
| 07:15 AM | 6 | 58 | 2 | 0 | 66 | 5 | 4 | 1 | 0 | 10 | 2 | 105 | 9 | 0 | 116 | 7 | 6 | 19 | 0 | 32 | 224 |
| 07:30 AM | 4 | 60 | 2 | 0 | 66 | 4 | 6 | 0 | 0 | 10 | 3 | 158 | 4 | 0 | 165 | 9 | 8 | 13 | 0 | 30 | 271 |
| 07:45 AM | 8 | 104 | 1 | 0 | 113 | 6 | 2 | 1 | 0 | 9 | 3 | 193 | 6 | 0 | 202 | 10 | 2 | 6 | 0 | 18 | 342 |
| Total | 25 | 271 | 9 | 0 | 305 | 17 | 17 | 3 | 0 | 37 | 9 | 565 | 27 | 0 | 601 | 29 | 17 | 53 | 0 | 99 | 1042 |
| 08:00 AM | 5 | 89 | 5 | 0 | 99 | 3 | 3 | 3 | 0 | 9 | 4 | 116 | 3 | 0 | 123 | 1 | 3 | 10 | 0 | 14 | 245 |
| 08:15 AM | 6 | 88 | 6 | 0 | 100 | 3 | 3 | 3 | 0 | 9 | 4 | 114 | 6 | 0 | 124 | 6 | 3 | 2 | 2 | 13 | 246 |
| 08:30 AM | 0 | 78 | 4 | 0 | 82 | 5 | 7 | 1 | 0 | 13 | 5 | 121 | 2 | 0 | 128 | 5 | 4 | 2 | 0 | 11 | 234 |
| 08:45 AM | 2 | 76 | 6 | 0 | 84 | 2 | 3 | 1 | 0 | 6 | 3 | 114 | 2 | 0 | 119 | 3 | 1 | 7 | 0 | 11 | 220 |
| Total | 13 | 331 | 21 | 0 | 365 | 13 | 16 | 8 | 0 | 37 | 16 | 465 | 13 | 0 | 494 | 15 | 11 | 21 | 2 | 49 | 945 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM | 6 | 117 | 0 | 0 | 123 | 3 | 3 | 2 | 1 | 9 | 2 | 141 | 8 | 0 | 151 | 9 | 8 | 22 | 0 | 39 | 322 |
| 11:15 AM | 5 | 129 | 3 | 0 | 137 | 1 | 2 | 3 | 0 | 6 | 1 | 117 | 9 | 0 | 127 | 10 | 2 | 17 | 0 | 29 | 299 |
| 11:30 AM | 8 | 117 | 6 | 0 | 131 | 2 | 3 | 5 | 0 | 10 | 0 | 128 | 3 | 0 | 131 | 8 | 6 | 15 | 0 | 29 | 301 |
| 11:45 AM | 14 | 151 | 4 | 0 | 169 | 9 | 7 | 2 | 1 | 19 | 2 | 154 | 9 | 0 | 165 | 9 | 4 | 8 | 0 | 21 | 374 |
| Total | 33 | 514 | 13 | 0 | 560 | 15 | 15 | 12 | 2 | 44 | 5 | 540 | 29 | 0 | 574 | 36 | 20 | 62 | 0 | 118 | 1296 |
| 12:00 PM | 13 | 166 | 8 | 0 | 187 | 9 | 5 | 2 | 0 | 16 | 6 | 145 | 22 | 0 | 173 | 13 | 8 | 14 | 3 | 38 | 414 |
| 12:15 PM | 10 | 160 | 12 | 0 | 182 | 3 | 5 | 0 | 0 | 8 | 6 | 183 | 16 | 0 | 205 | 4 | 7 | 9 | 0 | 20 | 415 |
| 12:30 PM | 13 | 117 | 5 | 0 | 135 | 9 | 6 | 2 | 0 | 17 | 3 | 148 | 12 | 0 | 163 | 7 | 3 | 17 | 0 | 27 | 342 |
| 12:45 PM | 7 | 132 | 5 | 0 | 144 | 2 | 2 | 4 | 0 | 8 | 1 | 152 | 6 | 0 | 159 | 10 | 1 | 9 | 0 | 20 | 331 |
| Total | 43 | 575 | 30 | 0 | 648 | 23 | 18 | 8 | 0 | 49 | 16 | 628 | 56 | 0 | 700 | 34 | 19 | 49 | 3 | 105 | 1502 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 5 | 127 | 4 | 0 | 136 | 9 | 0 | 1 | 0 | 10 | 3 | 119 | 9 | 0 | 131 | 4 | 2 | 8 | 0 | 14 | 291 |
| 03:15 PM | 5 | 137 | 11 | 0 | 153 | 4 | 0 | 4 | 0 | 8 | 1 | 111 | 4 | 0 | 116 | 6 | 0 | 9 | 0 | 15 | 292 |
| 03:30 PM | 7 | 160 | 3 | 0 | 170 | 4 | 3 | 1 | 0 | 8 | 1 | 135 | 8 | 0 | 144 | 8 | 3 | 15 | 0 | 26 | 348 |
| 03:45 PM | 8 | 158 | 3 | 0 | 169 | 2 | 4 | 2 | 0 | 8 | 1 | 144 | 5 | 0 | 150 | 7 | 2 | 7 | 0 | 16 | 343 |
| Total | 25 | 582 | 21 | 0 | 628 | 19 | 7 | 8 | 0 | 34 | 6 | 509 | 26 | 0 | 541 | 25 | 7 | 39 | 0 | 71 | 1274 |
| 04:00 PM | 9 | 156 | 11 | 0 | 176 | 3 | 1 | 3 | 0 | 7 | 2 | 137 | 4 | 0 | 143 | 0 | 4 | 13 | 1 | 18 | 344 |
| 04:15 PM | 8 | 175 | 10 | 0 | 193 | 1 | 2 | 4 | 0 | 7 | 1 | 108 | 9 | 0 | 118 | 10 | 3 | 9 | 0 | 22 | 340 |
| 04:30 PM | 9 | 133 | 6 | 3 | 151 | 6 | 2 | 1 | 0 | 9 | 2 | 135 | 13 | 0 | 150 | 6 | 3 | 12 | 0 | 21 | 331 |
| 04:45 PM | 12 | 159 | 6 | 4 | 181 | 8 | 3 | 3 | 0 | 14 | 0 | 144 | 8 | 0 | 152 | 11 | 2 | 4 | 1 | 18 | 365 |
| Total | 38 | 623 | 33 | 7 | 701 | 18 | 8 | 11 | 0 | 37 | 5 | 524 | 34 | 0 | 563 | 27 | 12 | 38 | 2 | 79 | 1380 |
| 05:00 PM | 5 | 207 | 13 | 0 | 225 | 5 | 3 | 3 | 0 | 11 | 2 | 130 | 14 | 0 | 146 | 5 | 6 | 16 | 0 | 27 | 409 |
| 05:15 PM | 12 | 204 | 12 | 0 | 228 | 7 | 3 | 3 | 0 | 13 | 2 | 146 | 10 | 0 | 158 | 8 | 0 | 9 | 0 | 17 | 416 |
| 05:30 PM | 14 | 158 | 10 | 0 | 182 | 4 | 5 | 1 | 0 | 10 | 2 | 119 | 10 | 0 | 131 | 8 | 3 | 10 | 0 | 21 | 344 |
| 05:45 PM | 11 | 116 | 3 | 0 | 130 | 3 | 5 | 0 | 0 | 8 | 1 | 107 | 7 | 0 | 115 | 9 | 1 | 10 | 1 | 21 | 274 |
| Total | 42 | 685 | 38 | 0 | 765 | 19 | 16 | 7 | 0 | 42 | 7 | 502 | 41 | 0 | 550 | 30 | 10 | 45 | 1 | 86 | 1443 |
| Grand Total | 219 | 3581 | 165 | 7 | 3972 | 124 | 97 | 57 | 2 | 280 | 64 | 3733 | 226 | 0 | 4023 | 196 | 96 | 307 | 8 | 607 | 8882 |
| Apprch % | 5.5 | 90.2 | 4.2 | 0.2 | | 44.3 | 34.6 | 20.4 | 0.7 | | 1.6 | 92.8 | 5.6 | 0.0 | | 32.3 | 15.8 | 50.6 | 1.3 | | |
| Total % | 2.5 | 40.3 | 1.9 | 0.1 | 44.7 | 1.4 | 1.1 | 0.6 | 0.0 | 3.2 | 0.7 | 42.0 | 2.5 | 0.0 | 45.3 | 2.2 | 1.1 | 3.5 | 0.1 | 6.8 | |

Cheyenne MPO
2101 O'Neil Ave
Cheyenne WY 82001

Counter Board: 64
Counted By: Carrol
Weather: Showers
Other: Cheyenne Counts 2007

File Name : COLLEG~1
Site Code : 00000219
Start Date : 5/4/2007
Page No : 1

Groups Printed- Unshifted

| | U.S. Hwy 85 From North | | | | | College Dr. From East | | | | | U.S. Hwy 85 From South | | | | | College Dr. From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Rt | Thru | Left | Ped | App. Total | Rt | Thru | Left | Ped | App. Total | Rt | Thru | Left | Ped | App. Total | Rt | Thru | Left | Ped | App. Total | Int. Total |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | |
| 07:00 AM | 9 | 30 | 11 | 0 | 50 | 4 | 5 | 10 | 0 | 19 | 22 | 111 | 30 | 0 | 163 | 13 | 20 | 16 | 0 | 49 | 281 |
| 07:15 AM | 13 | 31 | 10 | 0 | 54 | 3 | 20 | 22 | 0 | 45 | 29 | 71 | 21 | 0 | 121 | 14 | 24 | 15 | 0 | 53 | 273 |
| 07:30 AM | 11 | 41 | 8 | 1 | 61 | 10 | 19 | 12 | 0 | 41 | 36 | 125 | 22 | 0 | 183 | 18 | 28 | 24 | 0 | 70 | 355 |
| 07:45 AM | 17 | 50 | 33 | 0 | 100 | 10 | 32 | 20 | 0 | 62 | 34 | 125 | 27 | 0 | 186 | 19 | 32 | 26 | 0 | 77 | 425 |
| Total | 50 | 152 | 62 | 1 | 265 | 27 | 76 | 64 | 0 | 167 | 121 | 432 | 100 | 0 | 653 | 64 | 104 | 81 | 0 | 249 | 1334 |
| 08:00 AM | 11 | 47 | 10 | 0 | 68 | 14 | 22 | 27 | 0 | 63 | 24 | 100 | 20 | 0 | 144 | 15 | 22 | 19 | 0 | 56 | 331 |
| 08:15 AM | 14 | 47 | 18 | 0 | 79 | 14 | 23 | 33 | 0 | 70 | 39 | 75 | 16 | 0 | 130 | 22 | 25 | 23 | 1 | 71 | 350 |
| 08:30 AM | 8 | 60 | 17 | 0 | 85 | 15 | 16 | 23 | 0 | 54 | 42 | 110 | 11 | 0 | 163 | 10 | 25 | 12 | 0 | 47 | 349 |
| 08:45 AM | 9 | 54 | 32 | 0 | 95 | 19 | 15 | 11 | 0 | 45 | 28 | 76 | 10 | 0 | 114 | 18 | 25 | 19 | 0 | 62 | 316 |
| Total | 42 | 208 | 77 | 0 | 327 | 62 | 76 | 94 | 0 | 232 | 133 | 361 | 57 | 0 | 551 | 65 | 97 | 73 | 1 | 236 | 1346 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM | 23 | 72 | 11 | 0 | 106 | 24 | 12 | 18 | 0 | 54 | 18 | 78 | 10 | 0 | 106 | 13 | 16 | 19 | 0 | 48 | 314 |
| 11:15 AM | 15 | 71 | 11 | 0 | 97 | 21 | 11 | 21 | 0 | 53 | 29 | 65 | 9 | 0 | 103 | 22 | 20 | 19 | 0 | 61 | 314 |
| 11:30 AM | 11 | 80 | 24 | 0 | 115 | 33 | 19 | 21 | 0 | 73 | 26 | 76 | 11 | 0 | 113 | 12 | 12 | 16 | 0 | 40 | 341 |
| 11:45 AM | 23 | 80 | 16 | 0 | 119 | 37 | 30 | 21 | 0 | 88 | 24 | 94 | 15 | 0 | 133 | 15 | 24 | 19 | 0 | 58 | 398 |
| Total | 72 | 303 | 62 | 0 | 437 | 115 | 72 | 81 | 0 | 268 | 97 | 313 | 45 | 0 | 455 | 62 | 72 | 73 | 0 | 207 | 1367 |
| 12:00 PM | 18 | 80 | 14 | 0 | 112 | 29 | 26 | 20 | 0 | 75 | 12 | 81 | 8 | 0 | 101 | 18 | 21 | 24 | 0 | 63 | 351 |
| 12:15 PM | 15 | 77 | 14 | 1 | 107 | 28 | 24 | 22 | 1 | 75 | 11 | 80 | 16 | 0 | 107 | 22 | 18 | 22 | 1 | 63 | 352 |
| 12:30 PM | 11 | 98 | 19 | 0 | 128 | 21 | 21 | 26 | 0 | 68 | 17 | 78 | 14 | 0 | 109 | 25 | 29 | 20 | 0 | 74 | 379 |
| 12:45 PM | 17 | 86 | 15 | 0 | 118 | 23 | 23 | 16 | 0 | 62 | 24 | 93 | 13 | 0 | 130 | 18 | 34 | 24 | 0 | 76 | 386 |
| Total | 61 | 341 | 62 | 1 | 465 | 101 | 94 | 84 | 1 | 280 | 64 | 332 | 51 | 0 | 447 | 83 | 102 | 90 | 1 | 276 | 1468 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 33 | 116 | 7 | 0 | 156 | 17 | 23 | 37 | 0 | 77 | 27 | 87 | 13 | 1 | 128 | 27 | 16 | 17 | 1 | 61 | 422 |
| 03:15 PM | 21 | 96 | 10 | 0 | 127 | 21 | 33 | 30 | 0 | 84 | 27 | 125 | 25 | 1 | 178 | 22 | 19 | 30 | 1 | 72 | 461 |
| 03:30 PM | 30 | 120 | 14 | 0 | 164 | 15 | 27 | 40 | 1 | 83 | 31 | 130 | 16 | 2 | 179 | 33 | 26 | 26 | 1 | 86 | 512 |
| 03:45 PM | 21 | 121 | 10 | 0 | 152 | 27 | 39 | 43 | 0 | 109 | 35 | 82 | 19 | 0 | 136 | 13 | 26 | 27 | 2 | 68 | 465 |
| Total | 105 | 453 | 41 | 0 | 599 | 80 | 122 | 150 | 1 | 353 | 120 | 424 | 73 | 4 | 621 | 95 | 87 | 100 | 5 | 287 | 1860 |
| 04:00 PM | 24 | 109 | 7 | 0 | 140 | 20 | 18 | 39 | 1 | 78 | 27 | 107 | 6 | 0 | 140 | 31 | 31 | 18 | 0 | 80 | 438 |
| 04:15 PM | 25 | 121 | 12 | 0 | 158 | 29 | 36 | 40 | 0 | 105 | 25 | 106 | 14 | 0 | 145 | 24 | 27 | 23 | 0 | 74 | 482 |
| 04:30 PM | 27 | 111 | 15 | 0 | 153 | 19 | 30 | 47 | 0 | 96 | 24 | 101 | 15 | 0 | 140 | 29 | 32 | 32 | 0 | 93 | 482 |
| 04:45 PM | 35 | 144 | 9 | 0 | 188 | 21 | 30 | 44 | 1 | 96 | 24 | 121 | 32 | 0 | 177 | 30 | 24 | 27 | 1 | 82 | 543 |
| Total | 111 | 485 | 43 | 0 | 639 | 89 | 114 | 170 | 2 | 375 | 100 | 435 | 67 | 0 | 602 | 114 | 114 | 100 | 1 | 329 | 1945 |
| 05:00 PM | 30 | 128 | 18 | 1 | 177 | 21 | 37 | 36 | 0 | 94 | 22 | 111 | 17 | 0 | 150 | 38 | 29 | 37 | 0 | 104 | 525 |
| 05:15 PM | 37 | 162 | 8 | 0 | 207 | 14 | 27 | 55 | 0 | 96 | 24 | 115 | 18 | 1 | 158 | 43 | 20 | 23 | 3 | 89 | 550 |
| 05:30 PM | 32 | 131 | 19 | 0 | 182 | 18 | 34 | 31 | 0 | 83 | 26 | 119 | 17 | 0 | 162 | 39 | 42 | 31 | 0 | 112 | 539 |
| 05:45 PM | 34 | 93 | 10 | 0 | 137 | 8 | 26 | 34 | 0 | 68 | 15 | 114 | 14 | 0 | 143 | 31 | 14 | 31 | 0 | 76 | 424 |
| Total | 133 | 514 | 55 | 1 | 703 | 61 | 124 | 156 | 0 | 341 | 87 | 459 | 66 | 1 | 613 | 151 | 105 | 122 | 3 | 381 | 2038 |
| Grand Total | 574 | 2456 | 402 | 3 | 3435 | 535 | 678 | 799 | 4 | 2016 | 722 | 2756 | 459 | 5 | 3942 | 634 | 681 | 639 | 11 | 1965 | 11358 |
| Apprch % | 16.7 | 71.5 | 11.7 | 0.1 | | 26.5 | 33.6 | 39.6 | 0.2 | | 18.3 | 69.9 | 11.6 | 0.1 | | 32.3 | 34.7 | 32.5 | 0.6 | | |
| Total % | 5.1 | 21.6 | 3.5 | 0.0 | 30.2 | 4.7 | 6.0 | 7.0 | 0.0 | 17.7 | 6.4 | 24.3 | 4.0 | 0.0 | 34.7 | 5.6 | 6.0 | 5.6 | 0.1 | 17.3 | |

Cheyenne MPO
2101 O'Neil Ave
Cheyenne WY 82001

Counter Board: 64
Counted By: carrol
Weather: clear
Other: cheyenne counts 2007

File Name : WILLIA~1
Site Code : 00000253
Start Date : 4/27/2007
Page No : 1

Groups Printed- Unshifted

| | U.S. Hwy 85 From North | | | | | Williams Rd From East | | | | | U.S. Hwy 85 From South | | | | | Williams Rd From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Rt | Thru | Left | Ped | App. Total | Rt | Thru | Left | Ped | App. Total | Rt | Thru | Left | Ped | App. Total | Rt | Thru | Left | Ped | App. Total | Int. Total |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | |
| 07:00 AM | 7 | 41 | 0 | 0 | 48 | 2 | 0 | 0 | 0 | 2 | 0 | 111 | 1 | 0 | 112 | 0 | 0 | 22 | 0 | 22 | 184 |
| 07:15 AM | 12 | 54 | 0 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 0 | 109 | 0 | 0 | 109 | 2 | 0 | 24 | 0 | 26 | 201 |
| 07:30 AM | 9 | 57 | 0 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 0 | 137 | 1 | 0 | 138 | 3 | 0 | 28 | 0 | 31 | 235 |
| 07:45 AM | 6 | 68 | 0 | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 146 | 1 | 0 | 147 | 4 | 0 | 25 | 0 | 29 | 250 |
| Total | 34 | 220 | 0 | 0 | 254 | 2 | 0 | 0 | 0 | 2 | 0 | 503 | 3 | 0 | 506 | 9 | 0 | 99 | 0 | 108 | 870 |
| 08:00 AM | 8 | 65 | 0 | 0 | 73 | 0 | 0 | 0 | 0 | 0 | 0 | 110 | 1 | 0 | 111 | 4 | 0 | 14 | 2 | 20 | 204 |
| 08:15 AM | 11 | 88 | 0 | 0 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 102 | 1 | 0 | 103 | 1 | 0 | 11 | 0 | 12 | 214 |
| 08:30 AM | 7 | 90 | 0 | 0 | 97 | 0 | 0 | 0 | 0 | 0 | 0 | 147 | 1 | 0 | 148 | 5 | 0 | 18 | 0 | 23 | 268 |
| 08:45 AM | 5 | 73 | 0 | 0 | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 101 | 2 | 0 | 103 | 0 | 0 | 16 | 0 | 16 | 197 |
| Total | 31 | 316 | 0 | 0 | 347 | 0 | 0 | 0 | 0 | 0 | 0 | 460 | 5 | 0 | 465 | 10 | 0 | 59 | 2 | 71 | 883 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM | 15 | 76 | 0 | 0 | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 77 | 0 | 0 | 77 | 1 | 0 | 19 | 1 | 21 | 189 |
| 11:15 AM | 15 | 92 | 0 | 0 | 107 | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 3 | 0 | 78 | 0 | 0 | 20 | 0 | 20 | 205 |
| 11:30 AM | 10 | 74 | 0 | 0 | 84 | 0 | 0 | 0 | 0 | 0 | 0 | 69 | 1 | 0 | 70 | 0 | 0 | 12 | 1 | 13 | 167 |
| 11:45 AM | 17 | 81 | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 81 | 2 | 0 | 83 | 1 | 0 | 10 | 0 | 11 | 192 |
| Total | 57 | 323 | 0 | 0 | 380 | 0 | 0 | 0 | 0 | 0 | 0 | 302 | 6 | 0 | 308 | 2 | 0 | 61 | 2 | 65 | 753 |
| 12:00 PM | 20 | 111 | 0 | 0 | 131 | 0 | 0 | 0 | 0 | 0 | 0 | 97 | 2 | 0 | 99 | 2 | 0 | 13 | 0 | 15 | 245 |
| 12:15 PM | 15 | 91 | 0 | 0 | 106 | 0 | 0 | 0 | 0 | 0 | 0 | 104 | 2 | 0 | 106 | 2 | 0 | 16 | 1 | 19 | 231 |
| 12:30 PM | 9 | 97 | 0 | 0 | 106 | 0 | 0 | 0 | 0 | 0 | 0 | 83 | 1 | 0 | 84 | 3 | 0 | 12 | 0 | 15 | 205 |
| 12:45 PM | 14 | 92 | 0 | 0 | 106 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 2 | 0 | 102 | 2 | 0 | 25 | 1 | 28 | 236 |
| Total | 58 | 391 | 0 | 0 | 449 | 0 | 0 | 0 | 0 | 0 | 0 | 384 | 7 | 0 | 391 | 9 | 0 | 66 | 2 | 77 | 917 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 12 | 147 | 0 | 0 | 159 | 0 | 0 | 0 | 0 | 0 | 0 | 90 | 3 | 0 | 93 | 7 | 0 | 28 | 0 | 35 | 287 |
| 03:15 PM | 30 | 151 | 0 | 0 | 181 | 0 | 0 | 0 | 1 | 1 | 0 | 136 | 7 | 0 | 143 | 3 | 0 | 5 | 0 | 8 | 333 |
| 03:30 PM | 26 | 130 | 0 | 0 | 156 | 0 | 0 | 0 | 0 | 0 | 0 | 128 | 4 | 0 | 132 | 0 | 0 | 27 | 0 | 27 | 315 |
| 03:45 PM | 24 | 136 | 0 | 0 | 160 | 0 | 0 | 0 | 0 | 0 | 0 | 105 | 1 | 0 | 106 | 4 | 0 | 30 | 1 | 35 | 301 |
| Total | 92 | 564 | 0 | 0 | 656 | 0 | 0 | 0 | 1 | 1 | 0 | 459 | 15 | 0 | 474 | 14 | 0 | 90 | 1 | 105 | 1236 |
| 04:00 PM | 26 | 148 | 0 | 0 | 174 | 0 | 0 | 0 | 0 | 0 | 0 | 118 | 3 | 0 | 121 | 2 | 0 | 18 | 0 | 20 | 315 |
| 04:15 PM | 32 | 133 | 0 | 0 | 165 | 0 | 0 | 0 | 1 | 1 | 0 | 128 | 1 | 0 | 129 | 1 | 0 | 22 | 0 | 23 | 318 |
| 04:30 PM | 31 | 130 | 0 | 0 | 161 | 0 | 0 | 0 | 0 | 0 | 0 | 110 | 2 | 0 | 112 | 2 | 0 | 21 | 1 | 24 | 297 |
| 04:45 PM | 17 | 135 | 0 | 0 | 152 | 0 | 0 | 0 | 0 | 0 | 0 | 103 | 3 | 0 | 106 | 3 | 0 | 23 | 0 | 26 | 284 |
| Total | 106 | 546 | 0 | 0 | 652 | 0 | 0 | 0 | 1 | 1 | 0 | 459 | 9 | 0 | 468 | 8 | 0 | 84 | 1 | 93 | 1214 |
| 05:00 PM | 28 | 160 | 0 | 0 | 188 | 0 | 0 | 0 | 0 | 0 | 0 | 105 | 4 | 0 | 109 | 2 | 0 | 25 | 1 | 28 | 325 |
| 05:15 PM | 24 | 189 | 0 | 0 | 213 | 0 | 0 | 0 | 0 | 0 | 0 | 106 | 3 | 0 | 109 | 7 | 0 | 20 | 0 | 27 | 349 |
| 05:30 PM | 35 | 145 | 0 | 0 | 180 | 0 | 0 | 0 | 0 | 0 | 0 | 115 | 1 | 0 | 116 | 1 | 0 | 24 | 0 | 25 | 321 |
| 05:45 PM | 33 | 113 | 0 | 0 | 146 | 0 | 0 | 0 | 0 | 0 | 0 | 105 | 1 | 0 | 106 | 2 | 0 | 27 | 0 | 29 | 281 |
| Total | 120 | 607 | 0 | 0 | 727 | 0 | 0 | 0 | 0 | 0 | 0 | 431 | 9 | 0 | 440 | 12 | 0 | 96 | 1 | 109 | 1276 |
| Grand Total | 498 | 2967 | 0 | 0 | 3465 | 2 | 0 | 0 | 2 | 4 | 0 | 2998 | 54 | 0 | 3052 | 64 | 0 | 555 | 9 | 628 | 7149 |
| Apprch % | 14.4 | 85.6 | 0.0 | 0.0 | | 50.0 | 0.0 | 0.0 | 50.0 | | 0.0 | 98.2 | 1.8 | 0.0 | | 10.2 | 0.0 | 88.4 | 1.4 | | |
| Total % | 7.0 | 41.5 | 0.0 | 0.0 | 48.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 41.9 | 0.8 | 0.0 | 42.7 | 0.9 | 0.0 | 7.8 | 0.1 | 8.8 | |

Cheyenne MPO
2101 O'Neil Ave
Cheyenne WY 82001

Counter:
Counted By: JSims
Weather:Clear
Other:

File Name : Wallick Rd & Hwy 85
Site Code : 00120210
Start Date : 12/2/2010
Page No : 1

Groups Printed- 2 Axels - 3+ Axels

| | US 85 From North | | | | | Driveway From East | | | | | US 85 From South | | | | | Wallick Rd From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | |
| 07:00 AM | 16 | 19 | 0 | 0 | 35 | 2 | 0 | 0 | 0 | 2 | 0 | 63 | 3 | 0 | 66 | 1 | 0 | 9 | 0 | 10 | 113 |
| 07:15 AM | 12 | 16 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 99 | 0 | 0 | 99 | 0 | 0 | 12 | 0 | 12 | 139 |
| 07:30 AM | 14 | 28 | 2 | 0 | 44 | 3 | 0 | 0 | 0 | 3 | 0 | 144 | 3 | 0 | 147 | 2 | 0 | 18 | 0 | 20 | 214 |
| 07:45 AM | 29 | 42 | 1 | 0 | 72 | 2 | 0 | 0 | 0 | 2 | 0 | 133 | 11 | 0 | 144 | 2 | 0 | 18 | 0 | 20 | 238 |
| Total | 71 | 105 | 3 | 0 | 179 | 7 | 0 | 0 | 0 | 7 | 0 | 439 | 17 | 0 | 456 | 5 | 0 | 57 | 0 | 62 | 704 |
| 08:00 AM | 33 | 39 | 1 | 0 | 73 | 0 | 0 | 0 | 0 | 0 | 0 | 79 | 3 | 0 | 82 | 3 | 0 | 33 | 0 | 36 | 191 |
| 08:15 AM | 28 | 43 | 0 | 0 | 71 | 1 | 1 | 0 | 0 | 2 | 0 | 83 | 7 | 0 | 90 | 0 | 1 | 30 | 0 | 31 | 194 |
| 08:30 AM | 34 | 40 | 0 | 0 | 74 | 1 | 0 | 0 | 0 | 1 | 0 | 73 | 10 | 0 | 83 | 8 | 0 | 40 | 0 | 48 | 206 |
| 08:45 AM | 6 | 44 | 4 | 0 | 54 | 2 | 0 | 0 | 0 | 2 | 0 | 88 | 0 | 0 | 88 | 2 | 0 | 9 | 0 | 11 | 155 |
| Total | 101 | 166 | 5 | 0 | 272 | 4 | 1 | 0 | 0 | 5 | 0 | 323 | 20 | 0 | 343 | 13 | 1 | 112 | 0 | 126 | 746 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM | 7 | 60 | 2 | 0 | 69 | 2 | 0 | 0 | 0 | 2 | 0 | 62 | 0 | 0 | 62 | 0 | 0 | 6 | 0 | 6 | 139 |
| 11:15 AM | 13 | 56 | 3 | 0 | 72 | 1 | 0 | 0 | 0 | 1 | 1 | 66 | 0 | 0 | 67 | 2 | 0 | 7 | 0 | 9 | 149 |
| 11:30 AM | 12 | 58 | 5 | 0 | 75 | 2 | 0 | 0 | 0 | 2 | 1 | 55 | 0 | 0 | 56 | 0 | 0 | 11 | 0 | 11 | 144 |
| 11:45 AM | 11 | 70 | 3 | 0 | 84 | 4 | 0 | 0 | 0 | 4 | 0 | 71 | 2 | 0 | 73 | 0 | 0 | 9 | 0 | 9 | 170 |
| Total | 43 | 244 | 13 | 0 | 300 | 9 | 0 | 0 | 0 | 9 | 2 | 254 | 2 | 0 | 258 | 2 | 0 | 33 | 0 | 35 | 602 |
| 12:00 PM | 15 | 66 | 2 | 0 | 83 | 1 | 0 | 0 | 0 | 1 | 1 | 69 | 1 | 0 | 71 | 1 | 0 | 15 | 0 | 16 | 171 |
| 12:15 PM | 10 | 78 | 3 | 0 | 91 | 4 | 0 | 1 | 0 | 5 | 0 | 70 | 1 | 0 | 71 | 0 | 0 | 7 | 0 | 7 | 174 |
| 12:30 PM | 10 | 75 | 3 | 0 | 88 | 7 | 0 | 0 | 0 | 7 | 0 | 61 | 1 | 0 | 62 | 1 | 0 | 12 | 0 | 13 | 170 |
| 12:45 PM | 9 | 67 | 2 | 0 | 78 | 5 | 0 | 0 | 0 | 5 | 0 | 54 | 0 | 0 | 54 | 1 | 0 | 8 | 0 | 9 | 146 |
| Total | 44 | 286 | 10 | 0 | 340 | 17 | 0 | 1 | 0 | 18 | 1 | 254 | 3 | 0 | 258 | 3 | 0 | 42 | 0 | 45 | 661 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 17 | 88 | 3 | 0 | 108 | 0 | 0 | 0 | 0 | 0 | 0 | 71 | 0 | 0 | 71 | 0 | 0 | 9 | 0 | 9 | 188 |
| 03:15 PM | 25 | 89 | 1 | 0 | 115 | 0 | 0 | 0 | 0 | 0 | 0 | 53 | 5 | 0 | 58 | 1 | 0 | 8 | 0 | 9 | 182 |
| 03:30 PM | 42 | 103 | 3 | 0 | 148 | 2 | 0 | 0 | 0 | 2 | 0 | 63 | 9 | 0 | 72 | 4 | 0 | 31 | 1 | 36 | 258 |
| 03:45 PM | 37 | 118 | 4 | 0 | 159 | 1 | 0 | 0 | 0 | 1 | 1 | 86 | 0 | 0 | 87 | 7 | 0 | 52 | 0 | 59 | 306 |
| Total | 121 | 398 | 11 | 0 | 530 | 3 | 0 | 0 | 0 | 3 | 1 | 273 | 14 | 0 | 288 | 12 | 0 | 100 | 1 | 113 | 934 |
| 04:00 PM | 24 | 104 | 1 | 0 | 129 | 1 | 0 | 1 | 0 | 2 | 0 | 79 | 1 | 0 | 80 | 5 | 0 | 21 | 0 | 26 | 237 |
| 04:15 PM | 23 | 117 | 2 | 0 | 142 | 1 | 2 | 1 | 0 | 4 | 0 | 73 | 1 | 0 | 74 | 1 | 0 | 20 | 1 | 22 | 242 |
| 04:30 PM | 26 | 92 | 2 | 0 | 120 | 4 | 0 | 0 | 0 | 4 | 1 | 75 | 8 | 0 | 84 | 2 | 1 | 24 | 0 | 27 | 235 |
| 04:45 PM | 29 | 109 | 3 | 0 | 141 | 1 | 0 | 0 | 0 | 1 | 0 | 96 | 1 | 0 | 97 | 7 | 0 | 25 | 0 | 32 | 271 |
| Total | 102 | 422 | 8 | 0 | 532 | 7 | 2 | 2 | 0 | 11 | 1 | 323 | 11 | 0 | 335 | 15 | 1 | 90 | 1 | 107 | 985 |
| 05:00 PM | 12 | 151 | 1 | 0 | 164 | 3 | 0 | 1 | 0 | 4 | 0 | 78 | 2 | 0 | 80 | 1 | 0 | 12 | 0 | 13 | 261 |
| 05:15 PM | 23 | 167 | 1 | 0 | 191 | 0 | 0 | 0 | 0 | 0 | 0 | 70 | 0 | 0 | 70 | 1 | 0 | 9 | 0 | 10 | 271 |
| 05:30 PM | 13 | 92 | 1 | 0 | 106 | 2 | 1 | 0 | 0 | 3 | 0 | 65 | 0 | 0 | 65 | 2 | 0 | 12 | 0 | 14 | 188 |
| 05:45 PM | 10 | 83 | 0 | 0 | 93 | 3 | 0 | 0 | 0 | 3 | 0 | 62 | 2 | 0 | 64 | 0 | 0 | 15 | 0 | 15 | 175 |
| Total | 58 | 493 | 3 | 0 | 554 | 8 | 1 | 1 | 0 | 10 | 0 | 275 | 4 | 0 | 279 | 4 | 0 | 48 | 0 | 52 | 895 |
| Grand Total | 540 | 2114 | 53 | 0 | 2707 | 55 | 4 | 4 | 0 | 63 | 5 | 2141 | 71 | 0 | 2217 | 54 | 2 | 482 | 2 | 540 | 5527 |
| Apprch % | 19.9 | 78.1 | 2.0 | 0.0 | | 87.3 | 6.3 | 6.3 | 0.0 | | 0.2 | 96.6 | 3.2 | 0.0 | | 10.0 | 0.4 | 89.3 | 0.4 | | |
| Total % | 9.8 | 38.2 | 1.0 | 0.0 | 49.0 | 1.0 | 0.1 | 0.1 | 0.0 | 1.1 | 0.1 | 38.7 | 1.3 | 0.0 | 40.1 | 1.0 | 0.0 | 8.7 | 0.0 | 9.8 | |

Cheyenne MPO
2101 O'Neil Ave
Cheyenne WY 82001

Counter:
Counted By:Jsims
Weather:Clear
Other:

File Name : TERRYR~1
Site Code : 00111810
Start Date : 11/18/2010
Page No : 1

Groups Printed- Light Vehicles - Heavy Trucks

| | South Greeley From North | | | | | Port of Entry From East | | | | | South Greeley From South | | | | | Terry Ranch Rd From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | | |
| 07:00 AM | 2 | 10 | 1 | 0 | 13 | 0 | 0 | 1 | 0 | 1 | 0 | 19 | 1 | 0 | 20 | 0 | 0 | 15 | 0 | 15 | 49 |
| 07:15 AM | 2 | 14 | 1 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 2 | 22 | 0 | 0 | 24 | 0 | 0 | 12 | 0 | 12 | 53 |
| 07:30 AM | 4 | 11 | 4 | 0 | 19 | 0 | 0 | 2 | 0 | 2 | 3 | 29 | 1 | 0 | 33 | 0 | 0 | 22 | 0 | 22 | 76 |
| 07:45 AM | 5 | 16 | 1 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 2 | 37 | 3 | 0 | 42 | 0 | 0 | 19 | 0 | 19 | 83 |
| Total | 13 | 51 | 7 | 0 | 71 | 0 | 0 | 3 | 0 | 3 | 7 | 107 | 5 | 0 | 119 | 0 | 0 | 68 | 0 | 68 | 261 |
| 08:00 AM | 3 | 8 | 4 | 0 | 15 | 0 | 1 | 1 | 0 | 2 | 1 | 17 | 1 | 0 | 19 | 0 | 0 | 10 | 0 | 10 | 46 |
| 08:15 AM | 8 | 14 | 3 | 0 | 25 | 0 | 0 | 3 | 0 | 3 | 0 | 19 | 1 | 0 | 20 | 0 | 0 | 13 | 0 | 13 | 61 |
| 08:30 AM | 8 | 15 | 0 | 0 | 23 | 1 | 0 | 1 | 0 | 2 | 1 | 22 | 2 | 0 | 25 | 0 | 0 | 11 | 0 | 11 | 61 |
| 08:45 AM | 7 | 20 | 1 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 1 | 17 | 0 | 0 | 18 | 0 | 0 | 16 | 0 | 16 | 62 |
| Total | 26 | 57 | 8 | 0 | 91 | 1 | 1 | 5 | 0 | 7 | 3 | 75 | 4 | 0 | 82 | 0 | 0 | 50 | 0 | 50 | 230 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 11:00 AM | 14 | 18 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 5 | 16 | 1 | 0 | 22 | 3 | 0 | 8 | 0 | 11 | 65 |
| 11:15 AM | 13 | 27 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 3 | 16 | 0 | 0 | 19 | 1 | 0 | 10 | 0 | 11 | 70 |
| 11:30 AM | 12 | 22 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 5 | 30 | 1 | 0 | 36 | 0 | 0 | 10 | 0 | 10 | 80 |
| 11:45 AM | 9 | 19 | 2 | 0 | 30 | 0 | 0 | 4 | 0 | 4 | 3 | 23 | 0 | 0 | 26 | 0 | 0 | 10 | 0 | 10 | 70 |
| Total | 48 | 86 | 2 | 0 | 136 | 0 | 0 | 4 | 0 | 4 | 16 | 85 | 2 | 0 | 103 | 4 | 0 | 38 | 0 | 42 | 285 |
| 12:00 PM | 15 | 15 | 1 | 0 | 31 | 0 | 0 | 1 | 0 | 1 | 5 | 12 | 0 | 0 | 17 | 0 | 1 | 3 | 0 | 4 | 53 |
| 12:15 PM | 13 | 22 | 4 | 0 | 39 | 1 | 0 | 2 | 0 | 3 | 4 | 25 | 0 | 0 | 29 | 1 | 0 | 8 | 0 | 9 | 80 |
| 12:30 PM | 14 | 20 | 2 | 0 | 36 | 0 | 0 | 1 | 0 | 1 | 2 | 19 | 0 | 0 | 21 | 0 | 0 | 10 | 0 | 10 | 68 |
| 12:45 PM | 12 | 17 | 2 | 0 | 31 | 1 | 0 | 3 | 0 | 4 | 0 | 24 | 0 | 0 | 24 | 1 | 0 | 7 | 0 | 8 | 67 |
| Total | 54 | 74 | 9 | 0 | 137 | 2 | 0 | 7 | 0 | 9 | 11 | 80 | 0 | 0 | 91 | 2 | 1 | 28 | 0 | 31 | 268 |
| BREAK | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 10 | 17 | 2 | 0 | 29 | 1 | 0 | 1 | 0 | 2 | 2 | 19 | 0 | 0 | 21 | 0 | 0 | 15 | 0 | 15 | 67 |
| 03:15 PM | 13 | 40 | 2 | 0 | 55 | 1 | 0 | 2 | 0 | 3 | 2 | 22 | 1 | 0 | 25 | 0 | 0 | 6 | 0 | 6 | 89 |
| 03:30 PM | 9 | 20 | 1 | 0 | 30 | 1 | 0 | 3 | 0 | 4 | 4 | 17 | 1 | 0 | 22 | 1 | 0 | 7 | 0 | 8 | 64 |
| 03:45 PM | 14 | 36 | 1 | 0 | 51 | 0 | 1 | 2 | 0 | 3 | 2 | 25 | 1 | 0 | 28 | 2 | 1 | 8 | 0 | 11 | 93 |
| Total | 46 | 113 | 6 | 0 | 165 | 3 | 1 | 8 | 0 | 12 | 10 | 83 | 3 | 0 | 96 | 3 | 1 | 36 | 0 | 40 | 313 |
| 04:00 PM | 20 | 34 | 3 | 0 | 57 | 1 | 0 | 1 | 0 | 2 | 2 | 18 | 0 | 0 | 20 | 0 | 0 | 5 | 0 | 5 | 84 |
| 04:15 PM | 18 | 36 | 1 | 0 | 55 | 0 | 0 | 2 | 0 | 2 | 3 | 23 | 0 | 0 | 26 | 2 | 0 | 8 | 0 | 10 | 93 |
| 04:30 PM | 20 | 30 | 2 | 0 | 52 | 0 | 0 | 1 | 0 | 1 | 2 | 21 | 1 | 0 | 24 | 0 | 0 | 7 | 0 | 7 | 84 |
| 04:45 PM | 15 | 39 | 2 | 0 | 56 | 0 | 0 | 1 | 0 | 1 | 1 | 20 | 3 | 1 | 25 | 1 | 0 | 8 | 1 | 10 | 92 |
| Total | 73 | 139 | 8 | 0 | 220 | 1 | 0 | 5 | 0 | 6 | 8 | 82 | 4 | 1 | 95 | 3 | 0 | 28 | 1 | 32 | 353 |
| 05:00 PM | 17 | 36 | 1 | 0 | 54 | 1 | 0 | 1 | 0 | 2 | 3 | 18 | 1 | 0 | 22 | 1 | 0 | 10 | 0 | 11 | 89 |
| 05:15 PM | 17 | 42 | 1 | 0 | 60 | 1 | 0 | 1 | 0 | 2 | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 11 | 0 | 11 | 95 |
| 05:30 PM | 19 | 38 | 0 | 0 | 57 | 0 | 0 | 2 | 0 | 2 | 1 | 21 | 1 | 0 | 23 | 0 | 0 | 9 | 0 | 9 | 91 |
| 05:45 PM | 12 | 32 | 2 | 0 | 46 | 1 | 0 | 0 | 0 | 1 | 2 | 17 | 0 | 0 | 19 | 1 | 0 | 7 | 1 | 9 | 75 |
| Total | 65 | 148 | 4 | 0 | 217 | 3 | 0 | 4 | 0 | 7 | 6 | 78 | 2 | 0 | 86 | 2 | 0 | 37 | 1 | 40 | 350 |
| Grand Total | 325 | 668 | 44 | 0 | 1037 | 10 | 2 | 36 | 0 | 48 | 61 | 590 | 20 | 1 | 672 | 14 | 2 | 285 | 2 | 303 | 2060 |
| Apprch % | 31.3 | 64.4 | 4.2 | 0.0 | | 20.8 | 4.2 | 75.0 | 0.0 | | 9.1 | 87.8 | 3.0 | 0.1 | | 4.6 | 0.7 | 94.1 | 0.7 | | |
| Total % | 15.8 | 32.4 | 2.1 | 0.0 | 50.3 | 0.5 | 0.1 | 1.7 | 0.0 | 2.3 | 3.0 | 28.6 | 1.0 | 0.0 | 32.6 | 0.7 | 0.1 | 13.8 | 0.1 | 14.7 | |

STA. NO.=LA06011
DAY=WEDNESDAY
DATE=01-05-2011
ROAD=8-1
WEATHER=9-1
HOURS=1000-1800
NAME=JERRY
LOCATION=S OF CHEYENNE US85/S GREELEY HWY BYWN 5TH & 9TH ST
ROUTE=ML180
MILEPOST=9,0

MOVEMENT 1 to 3

| | CLASS | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOUR | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | TOTAL |
| 1000 | 0 | 315 | 147 | 0 | 6 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 473 |
| 1100 | 0 | 413 | 200 | 1 | 4 | 2 | 0 | 1 | 3 | 1 | 0 | 0 | 0 | 625 |
| 1200 | 1 | 512 | 222 | 1 | 1 | 2 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 743 |
| 1300 | 0 | 519 | 200 | 2 | 7 | 2 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 733 |
| 1400 | 1 | 505 | 189 | 2 | 11 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 711 |
| 1500 | 0 | 590 | 207 | 3 | 4 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 0 | 809 |
| 1600 | 0 | 635 | 230 | 2 | 4 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 873 |
| 1700 | 0 | 758 | 240 | 0 | 4 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1004 |
| TOTAL | 2 | 4247 | 1635 | 11 | 41 | 11 | 0 | 5 | 17 | 2 | 0 | 0 | 0 | 5971 |

MOVEMENT 3 to 1

| | CLASS | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOUR | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | TOTAL |
| 1000 | 0 | 403 | 155 | 0 | 4 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 567 |
| 1100 | 0 | 480 | 174 | 0 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 659 |
| 1200 | 0 | 525 | 227 | 1 | 2 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 760 |
| 1300 | 0 | 604 | 211 | 1 | 15 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 834 |
| 1400 | 0 | 447 | 189 | 1 | 11 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 651 |
| 1500 | 0 | 471 | 181 | 5 | 5 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 665 |
| 1600 | 0 | 562 | 201 | 2 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 769 |
| 1700 | 0 | 529 | 181 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 713 |
| TOTAL | 0 | 4021 | 1519 | 10 | 45 | 8 | 0 | 7 | 7 | 1 | 0 | 0 | 0 | 5618 |

GRAND TOTAL: 11589

STA. NO.=LA05811
DAY=TUESDAY
DATE=01-04-2011
ROAD=8-1
WEATHER=9-1
HOURS=1000-1800
NAME=JERRY
LOCATION=S OF CHEY, JCT US85 & WILLIAMS ST.
ROUTE=ML180
MILEPOST=6.73

MOVEMENT 1 to 4

| | CLASS | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOUR | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | TOTAL |
| 1000 | 0 | 29 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 |
| 1100 | 0 | 33 | 15 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| 1200 | 0 | 43 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 |
| 1300 | 0 | 46 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 |
| 1400 | 0 | 51 | 22 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 |
| 1500 | 0 | 52 | 18 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 |
| 1600 | 0 | 62 | 35 | 8 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 107 |
| 1700 | 0 | 64 | 35 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 |
| TOTAL | 0 | 380 | 178 | 13 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 576 |

MOVEMENT 1 to 3

| | CLASS | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOUR | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | TOTAL |
| 1000 | 0 | 169 | 111 | 1 | 4 | 2 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 294 |
| 1100 | 0 | 214 | 132 | 1 | 2 | 3 | 0 | 0 | 7 | 0 | 0 | 0 | 1 | 360 |
| 1200 | 0 | 228 | 148 | 2 | 5 | 3 | 1 | 0 | 3 | 0 | 0 | 0 | 1 | 391 |
| 1300 | 0 | 249 | 131 | 2 | 3 | 1 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 393 |
| 1400 | 0 | 288 | 176 | 2 | 4 | 1 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 478 |
| 1500 | 0 | 365 | 182 | 18 | 1 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 572 |
| 1600 | 0 | 420 | 220 | 2 | 1 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 647 |
| 1700 | 0 | 449 | 179 | 2 | 7 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 639 |
| TOTAL | 0 | 2382 | 1279 | 30 | 27 | 13 | 1 | 3 | 37 | 0 | 0 | 0 | 2 | 3774 |

MOVEMENT 3 to 1

| | CLASS | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOUR | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | TOTAL |
| 1000 | 0 | 191 | 112 | 2 | 1 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 1 | 315 |
| 1100 | 0 | 233 | 139 | 2 | 4 | 1 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 387 |
| 1200 | 0 | 235 | 135 | 3 | 1 | 2 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 385 |
| 1300 | 0 | 210 | 134 | 2 | 6 | 2 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 361 |
| 1400 | 0 | 216 | 136 | 2 | 5 | 1 | 0 | 0 | 7 | 1 | 0 | 0 | 0 | 368 |
| 1500 | 0 | 328 | 125 | 17 | 6 | 1 | 0 | 1 | 7 | 0 | 0 | 0 | 0 | 485 |
| 1600 | 0 | 356 | 170 | 9 | 3 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 544 |
| 1700 | 0 | 293 | 150 | 2 | 3 | 1 | 0 | 1 | 7 | 0 | 0 | 0 | 0 | 457 |
| TOTAL | 0 | 2062 | 1101 | 39 | 29 | 9 | 0 | 4 | 56 | 1 | 0 | 0 | 1 | 3302 |

MOVEMENT 3 to 4

| | CLASS | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOUR | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | TOTAL |
| 1000 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 1100 | 0 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 1200 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 1300 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 1400 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 1500 | 0 | 13 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| 1600 | 0 | 8 | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| 1700 | 0 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| TOTAL | 0 | 46 | 22 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 69 |

MOVEMENT 4 to 3

| HOUR | CLASS 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1000 | 0 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 1100 | 0 | 5 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 1200 | 0 | 7 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 1300 | 0 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 1400 | 0 | 4 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 1500 | 0 | 13 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 1600 | 0 | 8 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| 1700 | 0 | 5 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| TOTAL | 0 | 51 | 20 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 81 |

MOVEMENT 4 to 1

| HOUR | CLASS 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1000 | 0 | 39 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 |
| 1100 | 0 | 34 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 |
| 1200 | 0 | 45 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 |
| 1300 | 0 | 43 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54 |
| 1400 | 0 | 40 | 18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 |
| 1500 | 0 | 44 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61 |
| 1600 | 0 | 50 | 26 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 81 |
| 1700 | 0 | 52 | 19 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 |
| TOTAL | 0 | 347 | 146 | 5 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 502 |

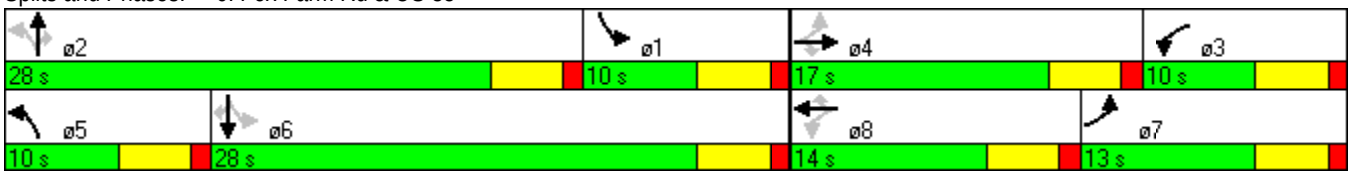
GRAND TOTAL: 8304

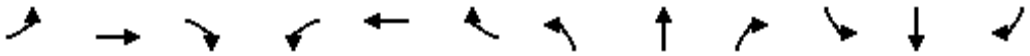
# APPENDIX B EXISTING CONDITIONS LEVEL OF SERVICE ANALYSES

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 182 | 67 | 57 | 50 | 59 | 110 | 42 | 643 | 82 | 91 | 355 | 86 |
| Turn Type | pm+pt | | Perm | pm+pt | | Perm | pm+pt | | Perm | pm+pt | | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 8.5 | 20.9 | 20.9 | 15.0 | 27.0 | 27.0 | 8.9 | 20.9 | 20.9 | 8.9 | 21.4 | 21.4 |
| Total Split (s) | 13.0 | 17.0 | 17.0 | 10.0 | 14.0 | 14.0 | 10.0 | 28.0 | 28.0 | 10.0 | 28.0 | 28.0 |
| Total Split (%) | 20.0% | 26.2% | 26.2% | 15.4% | 21.5% | 21.5% | 15.4% | 43.1% | 43.1% | 15.4% | 43.1% | 43.1% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lag | Lead | Lead | Lag | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | C-Max | C-Max | None | C-Max | C-Max |
| Act Effct Green (s) | 15.0 | 10.4 | 10.4 | 12.9 | 7.6 | 7.6 | 30.7 | 30.7 | 30.7 | 32.2 | 32.2 | 32.2 |
| Actuated g/C Ratio | 0.23 | 0.16 | 0.16 | 0.20 | 0.12 | 0.12 | 0.47 | 0.47 | 0.47 | 0.50 | 0.50 | 0.50 |
| v/c Ratio | 0.56 | 0.24 | 0.20 | 0.18 | 0.29 | 0.41 | 0.10 | 0.42 | 0.11 | 0.22 | 0.22 | 0.11 |
| Control Delay | 26.0 | 26.5 | 9.4 | 17.6 | 29.3 | 10.6 | 12.1 | 11.8 | 4.0 | 16.2 | 12.3 | 4.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 26.0 | 26.5 | 9.4 | 17.6 | 29.3 | 10.6 | 12.1 | 11.8 | 4.0 | 16.2 | 12.3 | 4.2 |
| LOS | C | C | A | B | C | B | B | B | A | B | B | A |
| Approach Delay | | 23.0 | | | 17.2 | | | 10.9 | | | 11.7 | |
| Approach LOS | | C | | | B | | | B | | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 65 | |
| Actuated Cycle Length: 65 | |
| Offset: 32 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.56 | |
| Intersection Signal Delay: 13.9 | Intersection LOS: B |
| Intersection Capacity Utilization 50.8% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Fox Farm Rd & US 85





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 5 | 0 | 4 | 11 | 1 | 14 | 4 | 808 | 21 | 2 | 461 | 7 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 5 | 0 | 4 | 12 | 1 | 15 | 4 | 878 | 23 | 2 | 501 | 8 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | | | | | | | None | | | None | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | 1290 | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 973 | 1419 | 254 | 1158 | 1411 | 451 | 509 | | | 901 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 973 | 1419 | 254 | 1158 | 1411 | 451 | 509 | | | 901 | | |
| tC, single (s) | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 97 | 100 | 99 | 92 | 99 | 97 | 100 | | | 100 | | |
| cM capacity (veh/h) | 199 | 135 | 745 | 150 | 136 | 556 | 1053 | | | 750 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
|---|---|---|---|---|---|---|---|---|
| Volume Total | 10 | 28 | 4 | 586 | 316 | 2 | 334 | 175 |
| Volume Left | 5 | 12 | 4 | 0 | 0 | 2 | 0 | 0 |
| Volume Right | 4 | 15 | 0 | 0 | 23 | 0 | 0 | 8 |
| cSH | 295 | 245 | 1053 | 1700 | 1700 | 750 | 1700 | 1700 |
| Volume to Capacity | 0.03 | 0.12 | 0.00 | 0.34 | 0.19 | 0.00 | 0.20 | 0.10 |
| Queue Length 95th (ft) | 3 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 17.6 | 21.6 | 8.4 | 0.0 | 0.0 | 9.8 | 0.0 | 0.0 |
| Lane LOS | C | C | A | | | A | | |
| Approach Delay (s) | 17.6 | 21.6 | 0.0 | | | 0.0 | | |
| Approach LOS | C | C | | | | | | |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 0.6 | | | |
| Intersection Capacity Utilization | 33.0% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Volume (vph) | 31 | 16 | 7 | 14 | 19 | 581 | 14 | 14 | 341 | 23 |
| Turn Type | Perm | | Perm | | Perm | | Perm | Perm | | Perm |
| Protected Phases | | 4 | | 8 | | 2 | | | 6 | |
| Permitted Phases | 4 | | 8 | | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 8 | 8 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 20.5 | 20.5 | 20.5 | 20.5 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| Total Split (s) | 26.0 | 26.0 | 26.0 | 26.0 | 39.0 | 39.0 | 39.0 | 39.0 | 39.0 | 39.0 |
| Total Split (%) | 40.0% | 40.0% | 40.0% | 40.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | |
| Recall Mode | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effct Green (s) | | 7.8 | | 7.8 | 50.7 | 50.7 | 50.7 | 50.7 | 50.7 | 50.7 |
| Actuated g/C Ratio | | 0.12 | | 0.12 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| v/c Ratio | | 0.39 | | 0.19 | 0.03 | 0.23 | 0.01 | 0.03 | 0.13 | 0.02 |
| Control Delay | | 23.8 | | 19.0 | 2.2 | 2.2 | 1.3 | 10.5 | 8.5 | 8.0 |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 23.8 | | 19.0 | 2.2 | 2.2 | 1.3 | 10.5 | 8.5 | 8.0 |
| LOS | | C | | B | A | A | A | B | A | A |
| Approach Delay | | 23.8 | | 19.0 | | 2.1 | | | 8.6 | |
| Approach LOS | | C | | B | | A | | | A | |

## Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 37 (57%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 6.3 — Intersection LOS: A
Intersection Capacity Utilization 32.2% — ICU Level of Service A
Analysis Period (min) 15

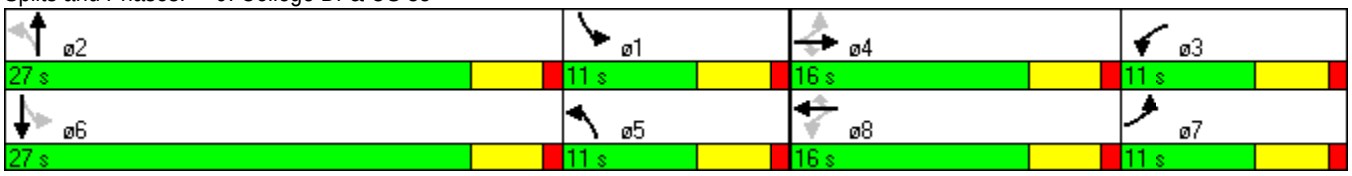
Splits and Phases: 3: Allison Rd & US 85

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Volume (vph) | 107 | 107 | 74 | 92 | 96 | 48 | 85 | 425 | 69 | 185 |
| Turn Type | pm+pt | | Perm | pm+pt | | Perm | pm+pt | | pm+pt | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 8.5 | 20.5 | 20.5 | 8.5 | 20.5 | 20.5 | 8.5 | 20.5 | 8.5 | 20.5 |
| Total Split (s) | 11.0 | 16.0 | 16.0 | 11.0 | 16.0 | 16.0 | 11.0 | 27.0 | 11.0 | 27.0 |
| Total Split (%) | 16.9% | 24.6% | 24.6% | 16.9% | 24.6% | 24.6% | 16.9% | 41.5% | 16.9% | 41.5% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lag | Lead | Lead | Lag | Lead | Lead | Lag | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | C-Max | None | C-Max |
| Act Effct Green (s) | 14.0 | 9.2 | 9.2 | 13.5 | 8.9 | 8.9 | 38.0 | 35.4 | 37.1 | 33.3 |
| Actuated g/C Ratio | 0.22 | 0.14 | 0.14 | 0.21 | 0.14 | 0.14 | 0.58 | 0.54 | 0.57 | 0.51 |
| v/c Ratio | 0.36 | 0.44 | 0.27 | 0.32 | 0.41 | 0.20 | 0.13 | 0.32 | 0.15 | 0.15 |
| Control Delay | 20.5 | 30.3 | 9.1 | 19.8 | 29.8 | 9.7 | 6.6 | 9.6 | 10.5 | 7.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.5 | 30.3 | 9.1 | 19.8 | 29.8 | 9.7 | 6.6 | 9.6 | 10.5 | 7.4 |
| LOS | C | C | A | B | C | A | A | A | B | A |
| Approach Delay | | 21.2 | | | 21.8 | | | 9.2 | | 8.1 |
| Approach LOS | | C | | | C | | | A | | A |

## Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 5 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.44
Intersection Signal Delay: 13.4 Intersection LOS: B
Intersection Capacity Utilization 43.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: College Dr & US 85

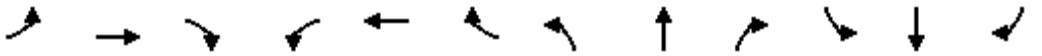


| Lane Group | EBL | NBL | NBT | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Volume (vph) | 68 | 4 | 505 | 311 |
| Turn Type | | Perm | | |
| Protected Phases | 4 | | 2 | 6 |
| Permitted Phases | | 2 | | |
| Detector Phase | 4 | 2 | 2 | 6 |
| Switch Phase | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 20.5 | 20.5 | 20.5 | 20.5 |
| Total Split (s) | 20.0 | 45.0 | 45.0 | 45.0 |
| Total Split (%) | 30.8% | 69.2% | 69.2% | 69.2% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | | | | |
| Lead-Lag Optimize? | | | | |
| Recall Mode | None | C-Max | C-Max | C-Max |
| Act Effct Green (s) | 8.3 | 50.6 | 50.6 | 50.6 |
| Actuated g/C Ratio | 0.13 | 0.78 | 0.78 | 0.78 |
| v/c Ratio | 0.38 | 0.01 | 0.20 | 0.14 |
| Control Delay | 26.4 | 3.0 | 3.0 | 1.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 26.4 | 3.0 | 3.0 | 1.6 |
| LOS | C | A | A | A |
| Approach Delay | 26.4 | | 3.0 | 1.6 |
| Approach LOS | C | | A | A |

**Intersection Summary**

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 31 (48%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.38
Intersection Signal Delay: 4.5 — Intersection LOS: A
Intersection Capacity Utilization 26.1% — ICU Level of Service A
Analysis Period (min) 15

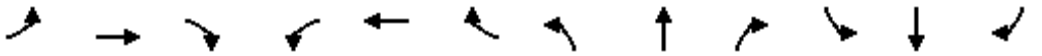
Splits and Phases: 12: Williams St & US 85



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 99 | 1 | 7 | 0 | 1 | 6 | 24 | 439 | 0 | 4 | 104 | 152 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 108 | 1 | 8 | 0 | 1 | 7 | 26 | 477 | 0 | 4 | 113 | 165 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | | | | | | | None | | | None | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 420 | 651 | 57 | 603 | 816 | 239 | 278 | | | 477 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 420 | 651 | 57 | 603 | 816 | 239 | 278 | | | 477 | | |
| tC, single (s) | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 79 | 100 | 99 | 100 | 100 | 99 | 98 | | | 100 | | |
| cM capacity (veh/h) | 502 | 377 | 998 | 372 | 302 | 763 | 1281 | | | 1081 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 | SB 4 |
|---|---|---|---|---|---|---|---|---|---|
| Volume Total | 116 | 8 | 26 | 318 | 159 | 4 | 57 | 57 | 165 |
| Volume Left | 108 | 0 | 26 | 0 | 0 | 4 | 0 | 0 | 0 |
| Volume Right | 8 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 165 |
| cSH | 518 | 626 | 1281 | 1700 | 1700 | 1081 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.22 | 0.01 | 0.02 | 0.19 | 0.09 | 0.00 | 0.03 | 0.03 | 0.10 |
| Queue Length 95th (ft) | 21 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 14.0 | 10.8 | 7.9 | 0.0 | 0.0 | 8.3 | 0.0 | 0.0 | 0.0 |
| Lane LOS | B | B | A | | | A | | | |
| Approach Delay (s) | 14.0 | 10.8 | 0.4 | | | 0.1 | | | |
| Approach LOS | B | B | | | | | | | |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 2.1 | | | |
| Intersection Capacity Utilization | 31.4% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 68 | 0 | 0 | 3 | 0 | 0 | 5 | 107 | 7 | 7 | 51 | 13 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 74 | 0 | 0 | 3 | 0 | 0 | 5 | 116 | 8 | 8 | 55 | 14 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | | | | | | | None | | | None | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 140 | 205 | 28 | 170 | 212 | 58 | 70 | | | 124 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 140 | 205 | 28 | 170 | 212 | 58 | 70 | | | 124 | | |
| tC, single (s) | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 91 | 100 | 100 | 100 | 100 | 100 | 100 | | | 99 | | |
| cM capacity (veh/h) | 811 | 684 | 1041 | 772 | 678 | 996 | 1529 | | | 1461 | | |

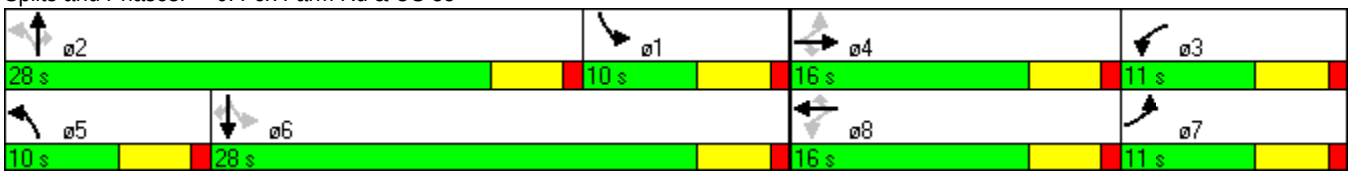
| Direction, Lane # | EB 1 | WB 1 | NB 1 | NB 2 | NB 3 | NB 4 | SB 1 | SB 2 | SB 3 | SB 4 |
|---|---|---|---|---|---|---|---|---|---|---|
| Volume Total | 74 | 3 | 5 | 58 | 58 | 8 | 8 | 28 | 28 | 14 |
| Volume Left | 74 | 3 | 5 | 0 | 0 | 0 | 8 | 0 | 0 | 0 |
| Volume Right | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 14 |
| cSH | 811 | 772 | 1529 | 1700 | 1700 | 1700 | 1461 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.09 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.02 | 0.02 | 0.01 |
| Queue Length 95th (ft) | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 9.9 | 9.7 | 7.4 | 0.0 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 | 0.0 |
| Lane LOS | A | A | A | | | | A | | | |
| Approach Delay (s) | 9.9 | 9.7 | 0.3 | | | | 0.7 | | | |
| Approach LOS | A | A | | | | | | | | |

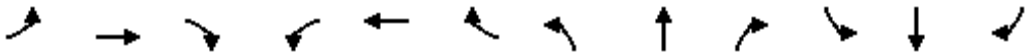
| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 3.0 | | | |
| Intersection Capacity Utilization | 20.2% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 176 | 77 | 95 | 177 | 85 | 116 | 46 | 650 | 147 | 109 | 855 | 193 |
| Turn Type | pm+pt | | Perm | pm+pt | | Perm | pm+pt | | Perm | pm+pt | | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 8.5 | 20.9 | 20.9 | 15.0 | 27.0 | 27.0 | 8.9 | 20.9 | 20.9 | 8.9 | 21.4 | 21.4 |
| Total Split (s) | 11.0 | 16.0 | 16.0 | 11.0 | 16.0 | 16.0 | 10.0 | 28.0 | 28.0 | 10.0 | 28.0 | 28.0 |
| Total Split (%) | 16.9% | 24.6% | 24.6% | 16.9% | 24.6% | 24.6% | 15.4% | 43.1% | 43.1% | 15.4% | 43.1% | 43.1% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lag | Lead | Lead | Lag | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | C-Max | C-Max | None | C-Max | C-Max |
| Act Effct Green (s) | 13.9 | 8.3 | 8.3 | 14.3 | 8.5 | 8.5 | 30.3 | 30.3 | 30.3 | 31.9 | 31.9 | 31.9 |
| Actuated g/C Ratio | 0.21 | 0.13 | 0.13 | 0.22 | 0.13 | 0.13 | 0.47 | 0.47 | 0.47 | 0.49 | 0.49 | 0.49 |
| v/c Ratio | 0.59 | 0.35 | 0.35 | 0.57 | 0.38 | 0.40 | 0.18 | 0.43 | 0.19 | 0.27 | 0.53 | 0.24 |
| Control Delay | 27.1 | 29.3 | 9.7 | 26.2 | 29.5 | 9.4 | 14.4 | 13.3 | 4.0 | 17.0 | 15.5 | 3.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 27.1 | 29.3 | 9.7 | 26.2 | 29.5 | 9.4 | 14.4 | 13.3 | 4.0 | 17.0 | 15.5 | 3.3 |
| LOS | C | C | A | C | C | A | B | B | A | B | B | A |
| Approach Delay | | 22.8 | | | 21.8 | | | 11.7 | | | 13.6 | |
| Approach LOS | | C | | | C | | | B | | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 65 | |
| Actuated Cycle Length: 65 | |
| Offset: 32 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.59 | |
| Intersection Signal Delay: 15.3 | Intersection LOS: B |
| Intersection Capacity Utilization 54.7% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Fox Farm Rd & US 85





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 15 | 1 | 6 | 15 | 2 | 19 | 9 | 811 | 16 | 34 | 1072 | 26 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 16 | 1 | 7 | 16 | 2 | 21 | 10 | 882 | 17 | 37 | 1165 | 28 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | | | | | | | None | | | None | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 1735 | 2172 | 597 | 1573 | 2177 | 449 | 1193 | | | 899 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 1735 | 2172 | 597 | 1573 | 2177 | 449 | 1193 | | | 899 | | |
| tC, single (s) | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 67 | 97 | 99 | 76 | 95 | 96 | 98 | | | 95 | | |
| cM capacity (veh/h) | 49 | 43 | 446 | 68 | 43 | 557 | 581 | | | 751 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
|---|---|---|---|---|---|---|---|---|
| Volume Total | 24 | 39 | 10 | 588 | 311 | 37 | 777 | 417 |
| Volume Left | 16 | 16 | 10 | 0 | 0 | 37 | 0 | 0 |
| Volume Right | 7 | 21 | 0 | 0 | 17 | 0 | 0 | 28 |
| cSH | 65 | 120 | 581 | 1700 | 1700 | 751 | 1700 | 1700 |
| Volume to Capacity | 0.37 | 0.33 | 0.02 | 0.35 | 0.18 | 0.05 | 0.46 | 0.25 |
| Queue Length 95th (ft) | 35 | 32 | 1 | 0 | 0 | 4 | 0 | 0 |
| Control Delay (s) | 90.4 | 49.1 | 11.3 | 0.0 | 0.0 | 10.0 | 0.0 | 0.0 |
| Lane LOS | F | E | B | | | B | | |
| Approach Delay (s) | 90.4 | 49.1 | 0.1 | | | 0.3 | | |
| Approach LOS | F | E | | | | | | |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 2.1 | | | |
| Intersection Capacity Utilization | 40.5% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Volume (vph) | 39 | 11 | 10 | 14 | 42 | 539 | 6 | 41 | 728 | 43 |
| Turn Type | Perm | | Perm | | Perm | | Perm | Perm | | Perm |
| Protected Phases | | 4 | | 8 | | 2 | | | 6 | |
| Permitted Phases | 4 | | 8 | | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 8 | 8 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 20.5 | 20.5 | 20.5 | 20.5 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| Total Split (s) | 26.0 | 26.0 | 26.0 | 26.0 | 39.0 | 39.0 | 39.0 | 39.0 | 39.0 | 39.0 |
| Total Split (%) | 40.0% | 40.0% | 40.0% | 40.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | |
| Recall Mode | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effct Green (s) | | 8.0 | | 8.0 | 50.5 | 50.5 | 50.5 | 50.5 | 50.5 | 50.5 |
| Actuated g/C Ratio | | 0.12 | | 0.12 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| v/c Ratio | | 0.41 | | 0.23 | 0.09 | 0.21 | 0.01 | 0.07 | 0.29 | 0.04 |
| Control Delay | | 24.3 | | 17.7 | 2.4 | 2.0 | 1.3 | 8.5 | 8.9 | 5.5 |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 24.3 | | 17.7 | 2.4 | 2.0 | 1.3 | 8.5 | 8.9 | 5.5 |
| LOS | | C | | B | A | A | A | A | A | A |
| Approach Delay | | 24.3 | | 17.7 | | 2.0 | | | 8.7 | |
| Approach LOS | | C | | B | | A | | | A | |

## Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 37 (57%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 7.2 Intersection LOS: A
Intersection Capacity Utilization 44.8% ICU Level of Service A
Analysis Period (min) 15

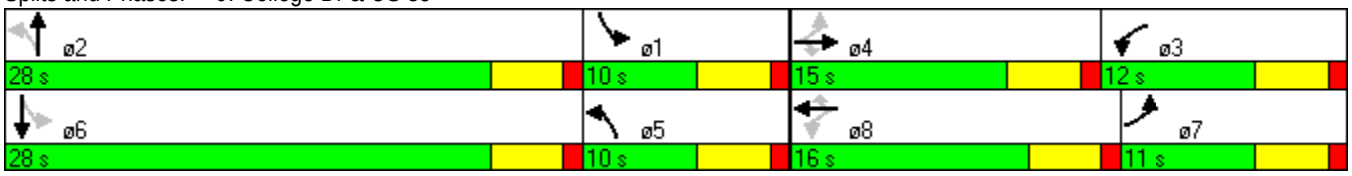
Splits and Phases: 3: Allison Rd & US 85

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Volume (vph) | 118 | 115 | 150 | 166 | 128 | 74 | 84 | 466 | 54 | 565 |
| Turn Type | pm+pt | | Perm | pm+pt | | Perm | pm+pt | | pm+pt | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 8.5 | 20.5 | 20.5 | 8.5 | 20.5 | 20.5 | 8.5 | 20.5 | 8.5 | 20.5 |
| Total Split (s) | 11.0 | 15.0 | 15.0 | 12.0 | 16.0 | 16.0 | 10.0 | 28.0 | 10.0 | 28.0 |
| Total Split (%) | 16.9% | 23.1% | 23.1% | 18.5% | 24.6% | 24.6% | 15.4% | 43.1% | 15.4% | 43.1% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lag | Lead | Lead | Lag | Lead | Lead | Lag | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | C-Max | None | C-Max |
| Act Effct Green (s) | 13.8 | 9.0 | 9.0 | 16.9 | 11.6 | 11.6 | 34.4 | 30.0 | 33.5 | 28.0 |
| Actuated g/C Ratio | 0.21 | 0.14 | 0.14 | 0.26 | 0.18 | 0.18 | 0.53 | 0.46 | 0.52 | 0.43 |
| v/c Ratio | 0.41 | 0.49 | 0.45 | 0.47 | 0.42 | 0.23 | 0.24 | 0.38 | 0.13 | 0.50 |
| Control Delay | 21.5 | 32.1 | 9.3 | 22.5 | 28.7 | 8.4 | 10.6 | 11.6 | 6.3 | 10.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.5 | 32.1 | 9.3 | 22.5 | 28.7 | 8.4 | 10.6 | 11.6 | 6.3 | 10.9 |
| LOS | C | C | A | C | C | A | B | B | A | B |
| Approach Delay | | 19.9 | | | 21.9 | | | 11.4 | | 10.6 |
| Approach LOS | | B | | | C | | | B | | B |

## Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 5 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 14.4 Intersection LOS: B
Intersection Capacity Utilization 54.8% ICU Level of Service A
Analysis Period (min) 15

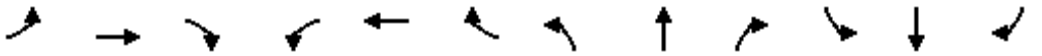
Splits and Phases: 9: College Dr & US 85



| Lane Group | EBL | NBL | NBT | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Volume (vph) | 92 | 11 | 429 | 629 |
| Turn Type | | Perm | | |
| Protected Phases | 4 | | 2 | 6 |
| Permitted Phases | | 2 | | |
| Detector Phase | 4 | 2 | 2 | 6 |
| Switch Phase | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 20.5 | 20.5 | 20.5 | 20.5 |
| Total Split (s) | 20.0 | 45.0 | 45.0 | 45.0 |
| Total Split (%) | 30.8% | 69.2% | 69.2% | 69.2% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | | | | |
| Lead-Lag Optimize? | | | | |
| Recall Mode | None | C-Max | C-Max | C-Max |
| Act Effct Green (s) | 9.2 | 49.7 | 49.7 | 49.7 |
| Actuated g/C Ratio | 0.14 | 0.76 | 0.76 | 0.76 |
| v/c Ratio | 0.45 | 0.02 | 0.17 | 0.30 |
| Control Delay | 28.0 | 3.5 | 3.3 | 1.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 28.0 | 3.5 | 3.3 | 1.2 |
| LOS | C | A | A | A |
| Approach Delay | 28.0 | | 3.3 | 1.2 |
| Approach LOS | C | | A | A |

| Intersection Summary | |
|---|---|
| Cycle Length: 65 | |
| Actuated Cycle Length: 65 | |
| Offset: 31 (48%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | |
| Natural Cycle: 45 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.45 | |
| Intersection Signal Delay: 4.1 | Intersection LOS: A |
| Intersection Capacity Utilization 34.1% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 12: Williams St & US 85



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 124 | 0 | 17 | 2 | 2 | 5 | 11 | 301 | 2 | 10 | 442 | 126 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 135 | 0 | 18 | 2 | 2 | 5 | 12 | 327 | 2 | 11 | 480 | 137 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | | | | | | | None | | | None | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 696 | 855 | 240 | 633 | 991 | 165 | 617 | | | 329 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 696 | 855 | 240 | 633 | 991 | 165 | 617 | | | 329 | | |
| tC, single (s) | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 58 | 100 | 98 | 99 | 99 | 99 | 99 | | | 99 | | |
| cM capacity (veh/h) | 318 | 288 | 761 | 350 | 239 | 851 | 959 | | | 1227 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 | SB 4 |
|---|---|---|---|---|---|---|---|---|---|
| Volume Total | 153 | 10 | 12 | 218 | 111 | 11 | 240 | 240 | 137 |
| Volume Left | 135 | 2 | 12 | 0 | 0 | 11 | 0 | 0 | 0 |
| Volume Right | 18 | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 137 |
| cSH | 342 | 451 | 959 | 1700 | 1700 | 1227 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.45 | 0.02 | 0.01 | 0.13 | 0.07 | 0.01 | 0.14 | 0.14 | 0.08 |
| Queue Length 95th (ft) | 56 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| Control Delay (s) | 23.8 | 13.2 | 8.8 | 0.0 | 0.0 | 8.0 | 0.0 | 0.0 | 0.0 |
| Lane LOS | C | B | A | | | A | | | |
| Approach Delay (s) | 23.8 | 13.2 | 0.3 | | | 0.1 | | | |
| Approach LOS | C | B | | | | | | | |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 3.5 | | | |
| Intersection Capacity Utilization | 33.5% | ICU Level of Service | | A |
| Analysis Period (min) | 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 38 | 0 | 2 | 5 | 0 | 2 | 5 | 81 | 5 | 4 | 155 | 68 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 41 | 0 | 2 | 5 | 0 | 2 | 5 | 88 | 5 | 4 | 168 | 74 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | | | | | | | None | | | None | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 234 | 282 | 84 | 194 | 350 | 44 | 242 | | | 93 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 234 | 282 | 84 | 194 | 350 | 44 | 242 | | | 93 | | |
| tC, single (s) | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 94 | 100 | 100 | 99 | 100 | 100 | 100 | | | 100 | | |
| cM capacity (veh/h) | 695 | 621 | 958 | 742 | 569 | 1016 | 1321 | | | 1499 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | NB 2 | NB 3 | NB 4 | SB 1 | SB 2 | SB 3 | SB 4 |
|---|---|---|---|---|---|---|---|---|---|---|
| Volume Total | 43 | 8 | 5 | 44 | 44 | 5 | 4 | 84 | 84 | 74 |
| Volume Left | 41 | 5 | 5 | 0 | 0 | 0 | 4 | 0 | 0 | 0 |
| Volume Right | 2 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 74 |
| cSH | 705 | 804 | 1321 | 1700 | 1700 | 1700 | 1499 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.06 | 0.01 | 0.00 | 0.03 | 0.03 | 0.00 | 0.00 | 0.05 | 0.05 | 0.04 |
| Queue Length 95th (ft) | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 10.4 | 9.5 | 7.7 | 0.0 | 0.0 | 0.0 | 7.4 | 0.0 | 0.0 | 0.0 |
| Lane LOS | B | A | A | | | | A | | | |
| Approach Delay (s) | 10.4 | 9.5 | 0.4 | | | | 0.1 | | | |
| Approach LOS | B | A | | | | | | | | |

| Intersection Summary | | | | | |
|---|---|---|---|---|---|
| Average Delay | 1.5 | | | | |
| Intersection Capacity Utilization | 20.9% | ICU Level of Service | | A | |
| Analysis Period (min) | 15 | | | | |