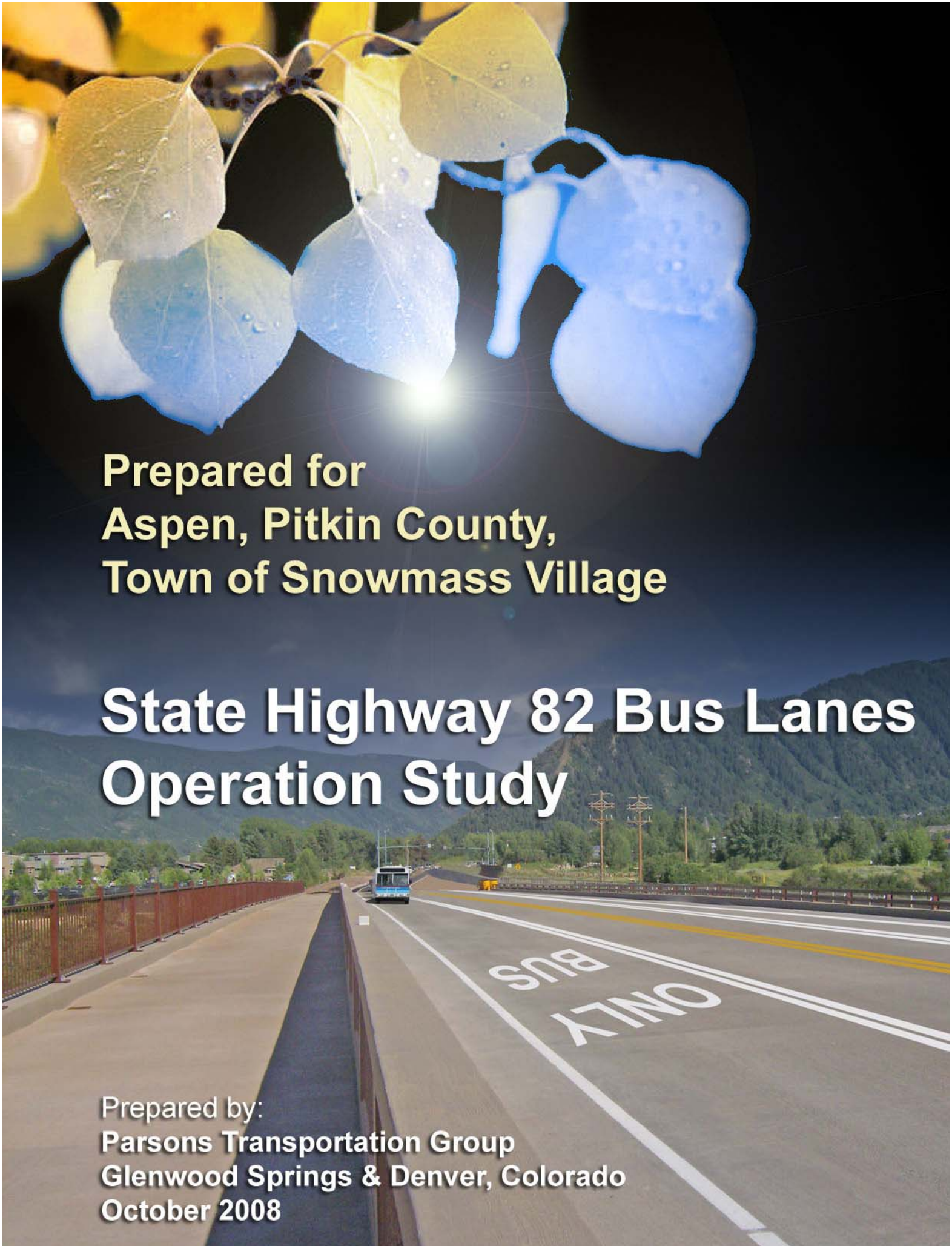

Prepared for
Aspen, Pitkin County,
Town of Snowmass Village

State Highway 82 Bus Lanes Operation Study

Prepared by:
Parsons Transportation Group
Glenwood Springs & Denver, Colorado
October 2008

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INTRODUCTION

The State Highway (SH) 82 corridor segment from Buttermilk Ski Area at Milepost (MP) 38.5 to the Maroon Creek roundabout at MP 39.8 includes two general-purpose lanes, and two exclusive bus lanes (defined as the SH 82/Aspen Busway). The roadway configuration for this segment of the SH 82 corridor is the result of recently completed transportation improvements. The SH 82/Aspen Busway includes one of the first exclusive bus lane segments implemented in a rural resort area setting in the United States.

It is assumed that reviewers of this study are already familiar with the subject matter. However, the *Definitions* section found at the end of this document includes certain terms that are industry standards and are of value for this discussion. Research materials used to prepare this study are listed in the *References* section.

BACKGROUND

The development of this segment of SH 82 began in 1994, with the *Entrance to Aspen Environmental Impact Statement* process. The process identified a Project Objective as follows:

> "….2. Transportation Capacity - Provide needed transportation capacity for the forecasted person-trips in the year 2015. In doing this, the project will identify a combination of travel modes, alignments, and transportation-management actions to seek to achieve the stated community goal of limiting the number of vehicles in the year 2015 to levels at or below those of 1994."

This Project Objective is consistent with the 1995 Elected Officials Transportation Committee (EOTC) joint resolution, to maintain traffic levels to those at or below 1994 levels.

In 1998, a Record of Decision (ROD) was issued. The ROD described the Preferred Alternative as a combination of highway and transit improvements, and a Light Rail Transit (LRT) system was identified as the transit component. The ROD allowed for phasing the transit component of the project, and took funding into consideration. The ROD states, "The transit component includes an LRT system that, if local support and/or funding are not available, will be developed initially as exclusive bus lanes."

Several components of the Entrance to Aspen project have been constructed since 1999. Improvements include relocating Owl Creek Road, reconstructing the SH 82/Owl Creek intersection, constructing the Maroon Creek roundabout, and constructing the Maroon Creek bridge. In February 2007, the EOTC directed staff to proceed with the design of the highway/busway segment from the SH 82/ Owl Creek Road intersection at Buttermilk Ski Area to the Maroon Creek roundabout.

In September 2007, the EOTC reviewed the design and cost estimate, and directed staff to work with the Colorado Department of Transportation (CDOT) to proceed with advertisement, award and construction of the project. Proceeds from the ½ cent transit tax in Pitkin County provided the project funding. The project was completed and opened to traffic in fall 2008.

Other improvements associated with this busway include a bus queue bypass in the inbound (upvalley) direction from the intersection of SH 82/ Aspen Airport Business Center (AABC, MP 37.1), and a bus/HOV pre-empt signal at that location. In the outbound (downvalley) direction, a peak hour exclusive bus lane exists on Main Street from the Aspen Street/Main Street area to 7th and Main.

The SH 82/Aspen Busway is intended to meet the Project Objectives in the *Entrance to Aspen Environmental Impact Statement*. The primary purpose of the SH 82/Aspen Busway is to both reduce travel time for long-haul Roaring Fork Transportation Authority (RFTA) routes, and to improve local RFTA bus circulation. This facility also brings a major secondary public safety benefit to the community, as the lane is available for use by emergency vehicles.

TECHNICAL DETAILS

The SH 82/Aspen Busway consists of an 11' outside lane, available for the exclusive use of buses. To minimize the width of the roadway platform, this lane is also used as a general purpose right-turn lane at certain locations in this corridor segment. Bus stops are located outside of the bus lane so stopped RFTA buses loading and unloading passengers do not block buses utilizing the through Busway.

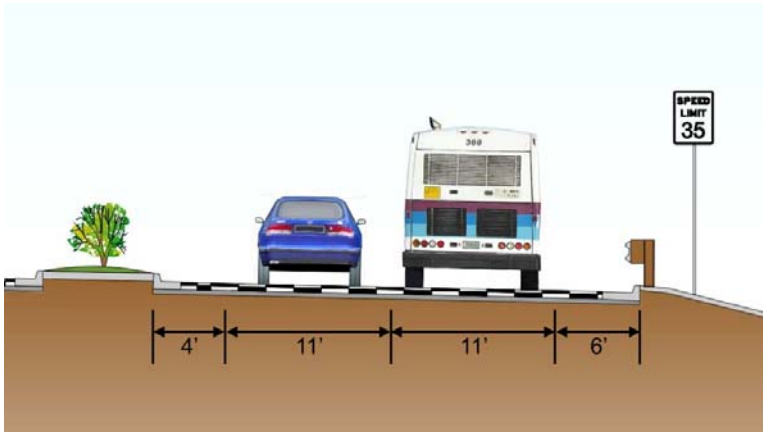

Figure 1: Inbound cross-section view of the US 82 Busway lanes.

A cross-section view of the US 82/Aspen Busway is displayed in Figure 1. A map of the Busway is included as Figure 2 on the next page. For signing, striping and other traffic control details, see Appendix A, *Plan Sheets*.

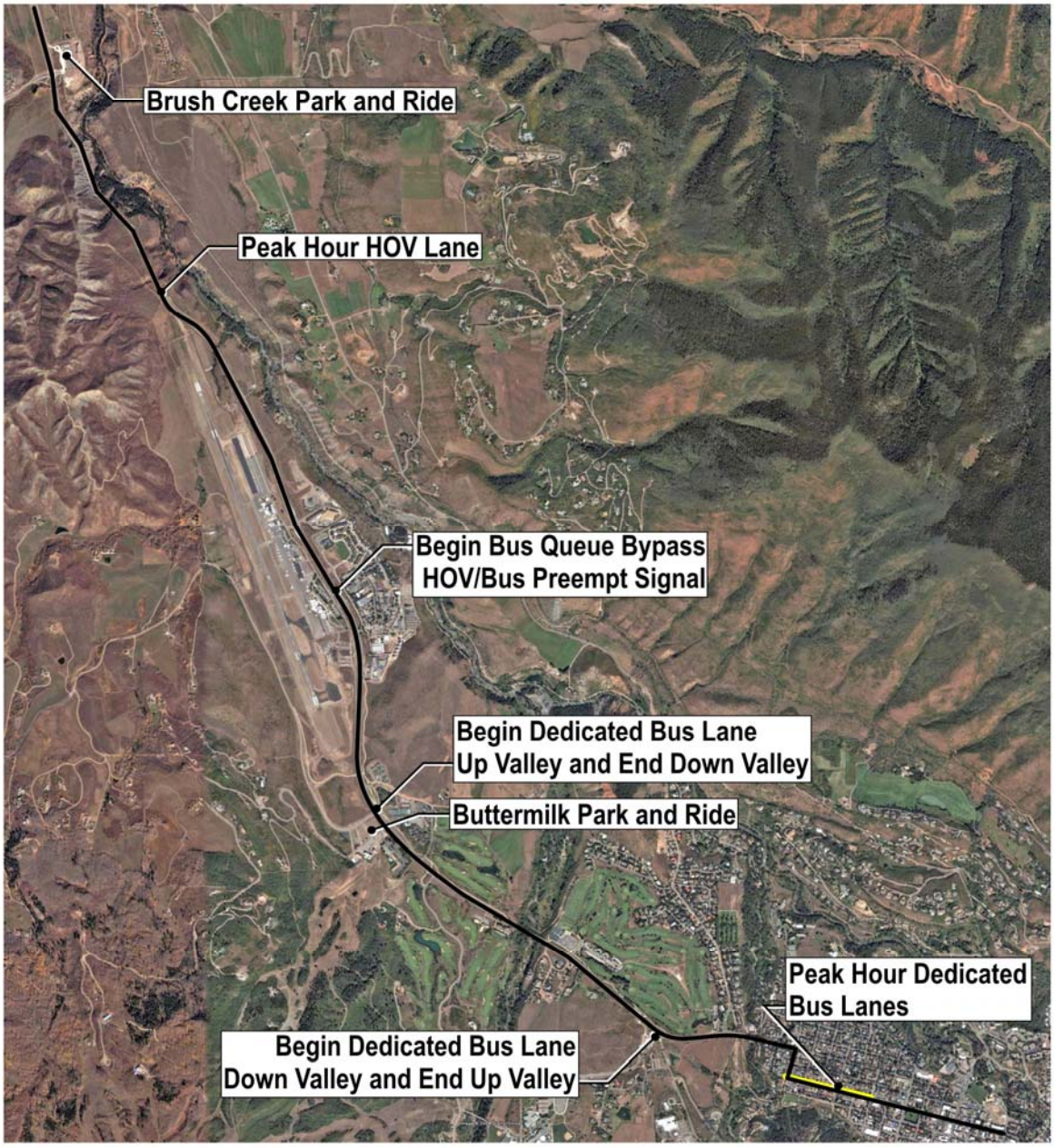
Brush Creek Park and Ride
Peak Hour HOV Lane
Begin Bus Queue Bypass
HOV/Bus Preempt Signal
Begin Dedicated Bus Lane
Up Valley and End Down Valley
Buttermilk Park and Ride
Peak Hour Dedicated
Bus Lanes
Begin Dedicated Bus Lane
Down Valley and End Up Valley

Figure 2

RFTA BUS OPERATIONS

The exclusive bus lanes are an important feature of the SH 82 Entrance to Aspen transportation improvements. The lanes are available for RFTA buses, emergency vehicles, Aspen school district buses, and right turns at designated locations. Their purpose is to lower RFTA transit times, provide more reliable transit times, and to improve local traffic circulation. Travel times and reliability for both Express routes and local circulator routes are improved.

As of the time of this study, the SH 82 Entrance to Aspen transportation system consists of the following:

Location	System Component
Inbound:	
• SH82/ AABC Intersection (mp 37.1) to SH82/ Owl Creek Road intersection (mp 38.5)	*Bus queue bypass (1.4 miles long)
• SH82/ Owl Creek Road intersection (mp 38.5) to SH82/ Maroon Creek roundabout (mp 39.8)	*Exclusive bus lane (1.3 miles long)
• SH82/ Maroon Creek roundabout (mp 39.8) to 7th and Main Street (mp 40.5)	*Mixed traffic (single lane) (0.70 miles long)
• 7th and Main Street (mp 40.5) ahead towards Central Business District	*Mixed traffic (two lanes)
Outbound:	
• Aspen Street to 7th and Main Street	*PM bus exclusive lane (about 0.4 miles long)
• 7th and Main Street to SH82/ Maroon Creek roundabout	*Mixed traffic (single lane) (0.70 miles long)
• SH82/ Maroon Creek roundabout to SH82/ Owl Creek Road	*Exclusive bus lane (1.3 miles long)
• SH82/ Owl Creek Road to SH82/ AABC intersection	*PM HOV (one lane) (1.4 miles long)

This system is complete, except for the segment from MP 39.8 to MP 40.5. With a current total of over 2.7 miles of busway, mobility at the Entrance to Aspen - especially for RFTA users - is greatly enhanced. To maintain this enhancement, it is necessary to place heavy emphasis on supporting the exclusive operations of RFTA buses in the Busway. Maintaining smooth, efficient busway operations will result in reliable travel time advantages over vehicles using the general-purpose lanes. This will allow for increased person-trips through increased RFTA mode share.

How does the Busway affect general traffic?

The Busway system expedites the flow of RFTA buses, and because buses are removed from general traffic, additional capacity is available in the general-purpose lanes.

USER DATA AND PERCEPTION

Travel data was collected during a representative summer weekday in the inbound to Aspen direction in July 2008. Busway usage estimates were based on current conditions. The data represents the 8:00 a.m. peak hour. It is estimated that 22 RFTA buses will utilize the Busway inbound to Aspen at AM peak hour. The calculated RFTA rideshare inbound to Aspen for the July 2008 AM peak hour is 36 to 40%. In 1993, CDOT estimated this rideshare to be 7%.

SH 82/Aspen Busway bus stop

Using preliminary information from the ongoing RFTA Bus Rapid Transit Study, bus transit demand is estimated for the year 2013 Winter peak hour. It is estimated that 53 RFTA buses (including skier shuttles) will utilize the Busway during the peak hour.

During the development of this study, concerns were expressed about the public perception of Busway use. The Busway facility operation may be perceived by the general public as not being adequately used when they do not see RFTA transit vehicles in it. Some practitioners refer to this as "Empty Lane Syndrome." This perception, whether correct or not, may create public pressure to modify the usage of the exclusive Busway. This perception could be the most critical issue in maintaining the viability of RFTA operations both now and in the future.

Specific guidelines for minimum ranges of flow to support a public perception of adequate use do not exist for this specific type of busway. In urban freeway settings, traffic studies cite wide ranges for minimum flows, from 400 vehicles per hour (vph) (long, continuous HOV treatments) to 100 vph (queue bypasses at ramps). In general, RFTA usages will be below these reported guidelines.

In more recent literature, (AASHTO 2004), it is reported that in urban arterial conditions, a minimum of 20 buses per hour at peak time should utilize the facility. This number is based on a facility close to a central business district, and is used more for planning purposes than as a guide to public perception.

Under any circumstances, public perception of the SH 82/Aspen Busway transportation facility is critical to its viability. Public perception should be considered from opening

day. Marketing outreach, consensus-building, and public/ elected official education are important aspects of establishing a positive perception of the Busway.

MAINTENANCE OPERATIONS

The SH 82/Aspen Busway includes a variety of transportation elements that require maintenance at some level. Landscape enhancements with irrigation require substantial maintenance. Drainage systems include curb-and-gutter, drop inlets, bridge drains, detention vaults and runs of culvert pipe in varying diameters. Signing, striping and traffic signals all require routine maintenance. Transit stops, shelters, and lighting need to be cleaned, repaired, and plowed.

Maintenance of the roadway surface is the most costly element of the highway. Maintaining a smooth, skid-resistant, well-drained surface will require pothole repair, patching and repaving. The most critical component of the roadway surface is winter snow and ice control.

Providing reliable transit travel times during winter storm events is critically dependent on snow and ice control. This is generally the responsibility of CDOT.

During snow and ice events, commuters tend to use RFTA service even more, adding additional demand on the system. In interviews with CDOT officials, it was emphasized that general traffic will use the first lane (or lanes) cleared "no matter what." CDOT will, as general procedure, run a two-plow gang (plowing from left to right) to clear a traffic lane and bus lane. As time permits, the far left lane will be cleared and snow would be removed across the two lanes previously cleared.

CDOT also stated that while the nature of some snow and ice events may prevent deployment of two-plow gangs in this area, generally it can be expected to be part of the normal snow and ice deployment plan. It should be noted that CDOT uses chemical deicer upvalley to milepost 40.0 in both directions.

In discussions with CDOT officials, it was stated that snow and ice control protocols needed to provide for a majority of users. Rideshare monitoring during snow and ice events should occur. Based on current levels, 50% or greater RFTA rideshare may soon be attained during AM peak hours during snowstorm/slippery road weather events.

Concerning maintenance responsibilities of other elements for the facility, several agreements and statutes exist to describe who is responsible. A February 23, 2006 Intergovernmental Agreement between CDOT and the City of Aspen defines certain responsibilities for SH82 within the Busway limits (relevant excerpts of the Agreement are attached as Appendix B). CRS 43-2-135, *Division of Authority*, attached as Appendix C, also defines responsibilities by statute. Jurisdictions vary through the Busway area, and from side to side along the roadway. Appendix D, *Jurisdictional Boundaries*, describes authority in the Busway area.

As responsibilities vary by jurisdictional boundary, a concise assignment of responsibility of each element is described in Appendix E, *Maintenance Responsibility Cross-Sections*.

The Buttermilk transit lot will be maintained jointly by RFTA and the Aspen Ski Company.

As established in the past, a high level of partnership and cooperation exists between CDOT, the City of Aspen, and Pitkin County. It is expected that this outstanding partnership will continue, which will ensure the proper management and maintenance of the SH82/Aspen Busway.

USE BY EMERGENCY VEHICLES

An important operational benefit of the SH 82/Aspen Busway is to provide an uncongested through-lane for emergency vehicle use. This component of the Preferred Alternative is consistent with the following Project Objective:

> "8. Emergency Access- Respond to the need for an alternate route for emergency response to incidents inside and outside of Aspen."

In Spring 2008, as planning for the construction of the Busway was underway, discussions began with law enforcement officials and emergency services providers through the established Public Safety Council. After several meetings, consensus was gained on an operating protocol for emergency vehicles in the Busway.

Allowing emergency vehicles to use the exclusive bus lanes is consistent with U.S. practice. In summary, if an emergency vehicle is using the bus lane, emergency lights and sirens will NOT be used (run "non-code"). The decision whether or not to use the bus lane will depend on each situation and is the responsibility of the responder. During periods of free-flowing traffic, it may be more effective for an emergency vehicle to run emergency lights and siren (run "code"), and use the general-purpose/ HOV lanes.

RFTA has also issued directions to drivers to yield to emergency vehicles by pulling off at the first available safe location on the side of the road and allowing the emergency vehicle to pass the bus.

LAW ENFORCEMENT

Enforcement is a critical element to the successful operation of the SH82/Aspen Busway. The purpose of the enforcement program is to ensure that operating requirements are maintained and enforced. The purpose of enforcement is to maintain a safe operating environment and ensure reliable travel time. Legal authority to enforce the operating regulations rests with the Colorado State Patrol, the Pitkin County Sheriff's Office and the City of Aspen Police Department. However, due to the complexity of jurisdictional boundaries, there are some locations where the Aspen Police Department does not have

authority. At the critical area upvalley from the SH82/ Owl Creek Road intersection where the Busway begins, Aspen Police do not have jurisdictional authority. Enforcement in that area is under the jurisdiction of the Sheriff's Office. Appendix D *Jurisdictional Boundaries*, provides a map that shows the jurisdictional authority of law enforcement, based on current Aspen City limits.

Exclusive bus lanes on the SH 82/Aspen Busway have no physical separation from the adjacent general-purpose lane. Separation is accomplished through roadway striping, signing, and pavement markings. As a result, enforcement of regulations associated with the bus lane can be challenging.

A pad has been included on the facility adjacent to the upvalley travel lanes, at approximately MP 39. This will allow law enforcement to observe a lane violator and pull the violator over to a safe area off the traveled way.

City and County law enforcement officers will cite violators for "Failure to drive in a designated lane." That violation includes a $100 penalty and 3 points.

USE BY OTHER VEHICLES

The SH82/Aspen Busway is signed and striped to allow RFTA buses, Aspen school district buses, and emergency vehicles only. The Busway is also striped to allow right turns at designated intersections by vehicles exiting from the general-purpose lanes. This usage plan was clearly contemplated by the parties when the Preferred Alternative was developed. This usage is consistent with the exclusive bus lane component of the Preferred Alternative described in the ROD and Re-evaluation.

Transportation improvements along SH 82 have been discussed and decisions have been formalized through the voting process over the past several years.

The successful Open Space Vote of May 2007 clears use of City of Aspen Open Space specifically for "construction, operation and maintenance of a two-lane parkway and two exclusive bus lanes" (City of Aspen 2007A). Additionally, the local funding component for project design and construction came from revenues generated by a ½ cent sales and use tax to fund mass transportation improvements as passed by Pitkin County voters in November 1993. The EOTC "agreed that the funds could be used to increase and improve bus service, for park and ride facilities, to acquire Rights-of-Way for transportation and for additional projects which fit the general framework of financing, constructing, operating or maintaining a mass transportation system in the county" (City of Aspen 2007B). Furthermore, the State passed legislation that authorizes the collection and use of the ½ cent mass transportation sales and use tax and specifies that it may be used only "…for the purpose of financing, constructing, operating, or maintaining a mass transportation system within the county" (CRS 29-2-103.5).

The decision to exclusively use the Busway for RFTA transit, school buses, and emergency vehicles is based on the above commitments and financing constraints.

Any change in this policy will require extensive Federal Highway Administration (FHWA), CDOT, and local coordination. Additional local votes, replacement funding for the busway construction cost, and National Environmental Policy Act (NEPA) documentation will likely be required. Besides regulatory and statutory constraints, practical considerations exist if changing the lane usage policy was to be deliberated. Safety is a primary consideration. Including paratransit vehicles, hotel van shuttles and other non-public vehicles adds non-DOT certified drivers and equipment in the Busway, and raises safety concerns. Potential delays to the RFTA system are another factor. Increased traffic density in the Busway will cause impedance of RFTA buses. Additionally, since the bus leaving the stop must yield to through traffic in the Busway, RFTA buses entering and leaving stops will experience significant delays as lane density increases.

National practice is to allow public transit vehicles only in bus-exclusive lanes. When non-public transit vehicles are introduced, the lane is typically converted to an HOV/ managed lane. This HOV operational scenario was considered during the NEPA process, but was screened out because it did not meet the project objectives.

State and federal regulations are silent on the definition of buses and regulations concerning busways. While the Colorado law CRS 42-4-1012 describes HOV lanes, it is silent on exclusive bus lanes. The only other public transit provider with busways, RTD in Colorado, is not operating under any special state or local statutes. The RTD bus lanes are designated with signage and lane markings that serve as official traffic control devices. Citations are issued for violations related to ignoring those devices.

In summary, allowing use by paratransit vehicles, hotel van shuttles and other non-public vehicles will likely require the following actions:

- Coordination with FHWA and CDOT;
- NEPA documentation;
- Additional local votes; and
- Replacement funding for the busway construction costs.

DEFINITIONS

NOTE: all definitions are taken from AASHTO, Reference 3, unless otherwise noted.

Aspen Busway- The State Highway (SH) 82 corridor segment from Buttermilk Ski Area at Milepost (MP) 38.5 to the Maroon Creek roundabout at MP 39.8, which includes two general-purpose lanes, and two exclusive bus lanes

Bus- A self-propelled, rubber-tired road vehicle designed to carry a substantial number of passengers, commonly operated on streets and highways. A bus has enough head room to allow passengers to stand upright after entering (definition listed in the TRB, Urban Public Transportation Glossary, 1989).

Emergency Vehicle- Any vehicle generally used in responding to an incident that has caused or may lead to life- or injury- threatening conditions or destruction of property. Examples are police, fire, and ambulance vehicles as well as tow trucks and maintenance vehicles.

General-Purpose Lanes- Travel lanes that are open to all vehicle types and/or occupancy levels along the roadway.

High-Occupancy Vehicle (HOV)- Motor vehicles carrying at least two or more occupants, including the driver. An HOV could be a transit bus, vanpool, carpool, or any other vehicle that meets the minimum occupancy requirements, usually expressed as either two or more, three or more, or four or more persons per vehicle.

Paratransit Vehicle- Any form of intraurban demand-responsive vehicle such as taxis, carpools, etc., that are available for hire to the public. They are distinct from conventional transit as they generally do not operate on a fixed schedule.

Peak Hour- That hour during which the maximum demand occurs for a given transportation corridor of region, generally specified as the morning peak hour or the evening peak hour.

Peak Period- A portion of the day in which the heaviest demand occurs for a given transportation corridor or region, usually defined as a morning or evening period of two or more hours.

Public Transit (or Public Transportation)- Passenger transportation service to the public on a regular basis using vehicles that transport more than one person for compensation, usually but not exclusively over a set route or routes from one fixed point to another. Routes or schedules of this service may be predetermined by the operator or may be determined through a cooperative arrangement.

Roaring Fork Transportation Authority (RFTA)- The Roaring Fork Transportation Authority has been in operation since 1983, and is operated as a Regional Transportation Authority. The RTA includes the communities of Aspen, Snowmass Village, Pitkin County, Basalt, a portion of Eagle County, Carbondale, New Castle, and Glenwood Springs (http://www.rfta.com).

Transit, Light Rail (LRT)- An urban railway system characterized by its ability to operate single cars or short trains in streets or exclusive right-of-way, capable of discharging passengers at track or car floor level (TRB, Public Transportation Glossary, 1989).

Travel Time- The length of time it takes to travel between two points.

Travel-Time Reliability- Term referring to the lack of variability in travel time that can be expected using different facilities.

Travel-Time Savings- Time saved by using an HOV facility rather than the general-purpose lanes.

Vanpool- A prearranged ridesharing function in which a number of people travel together on a regular basis in a van, usually designed to carry six or more persons.

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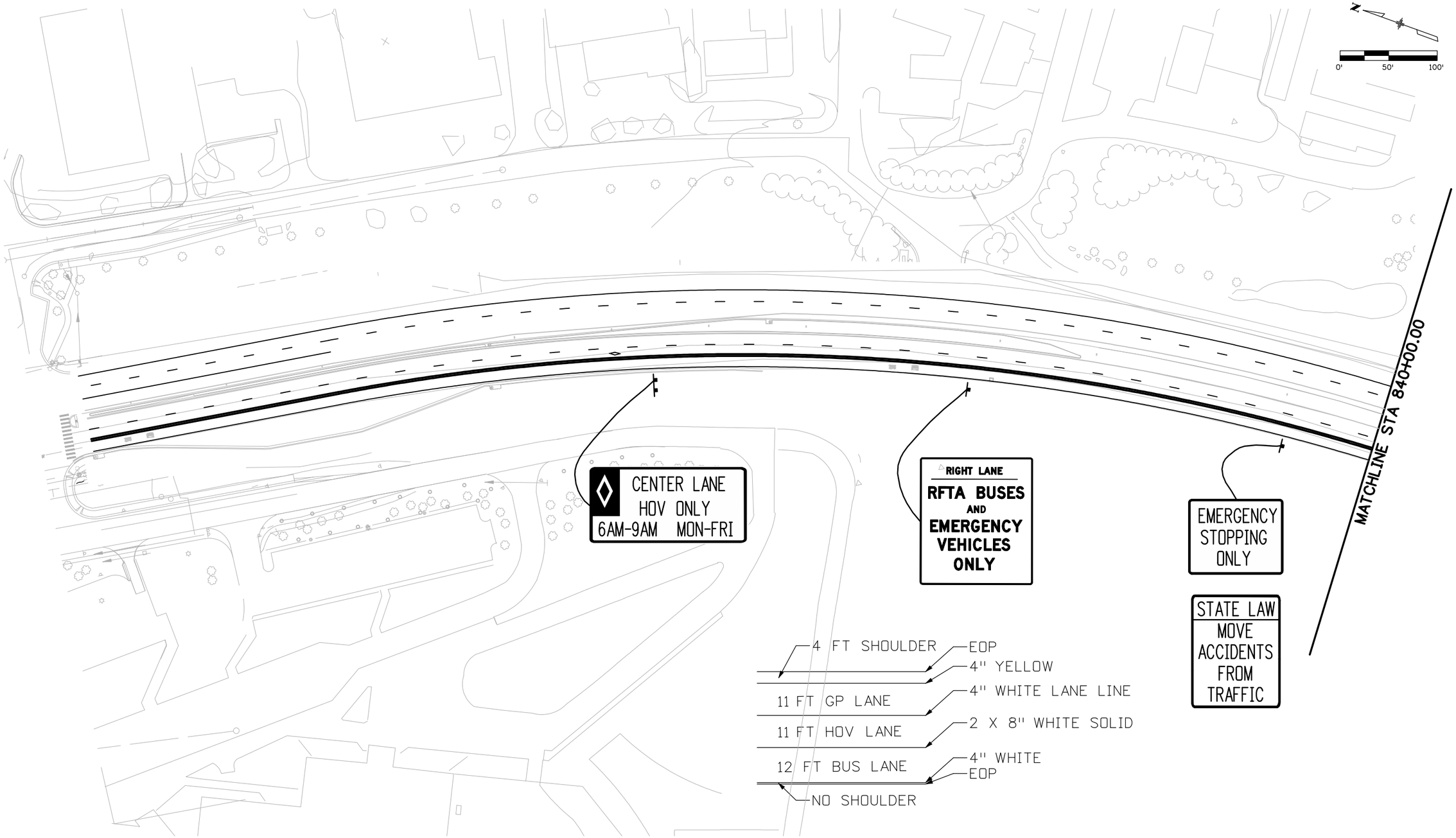
APPENDIX A PLAN SHEETS



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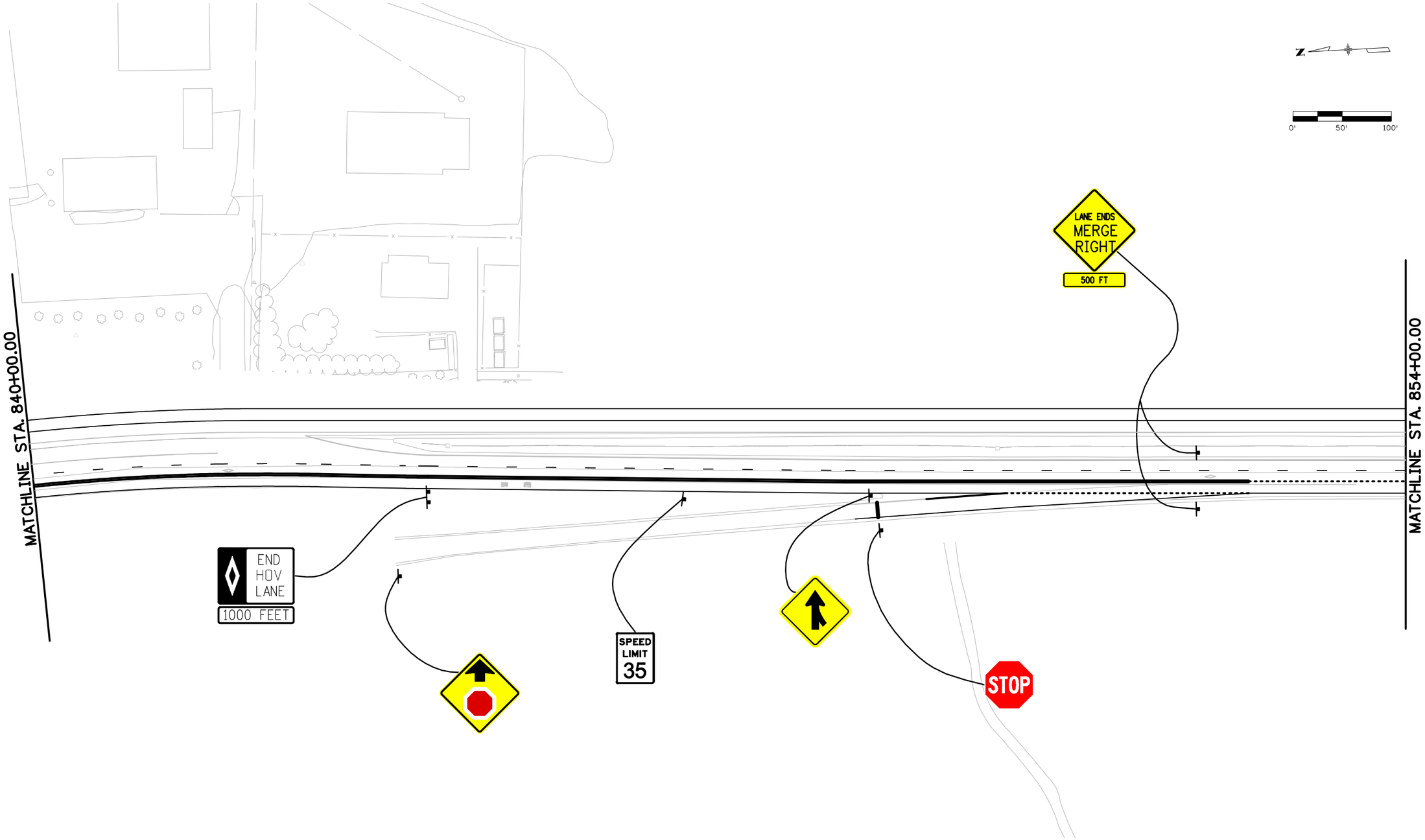

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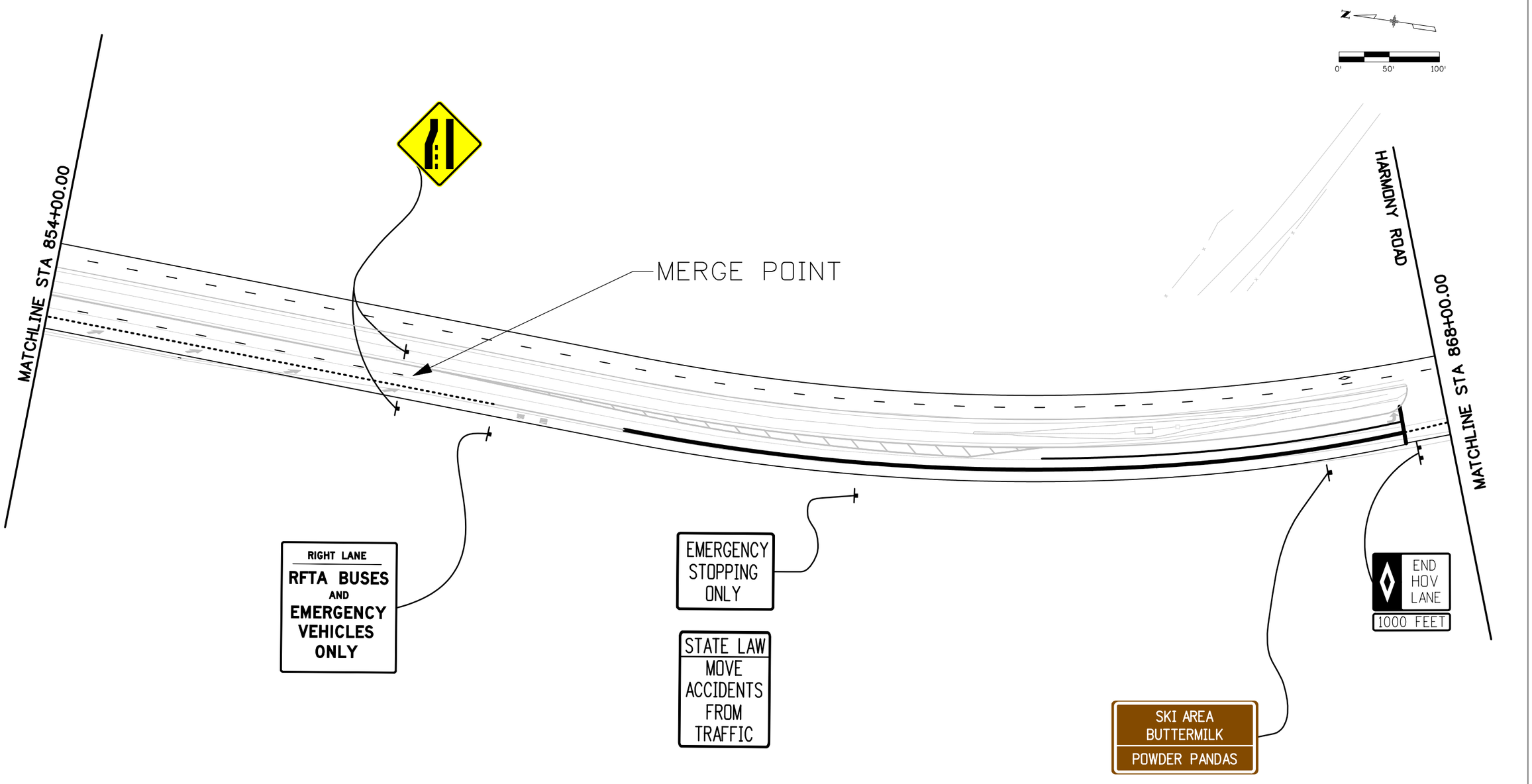

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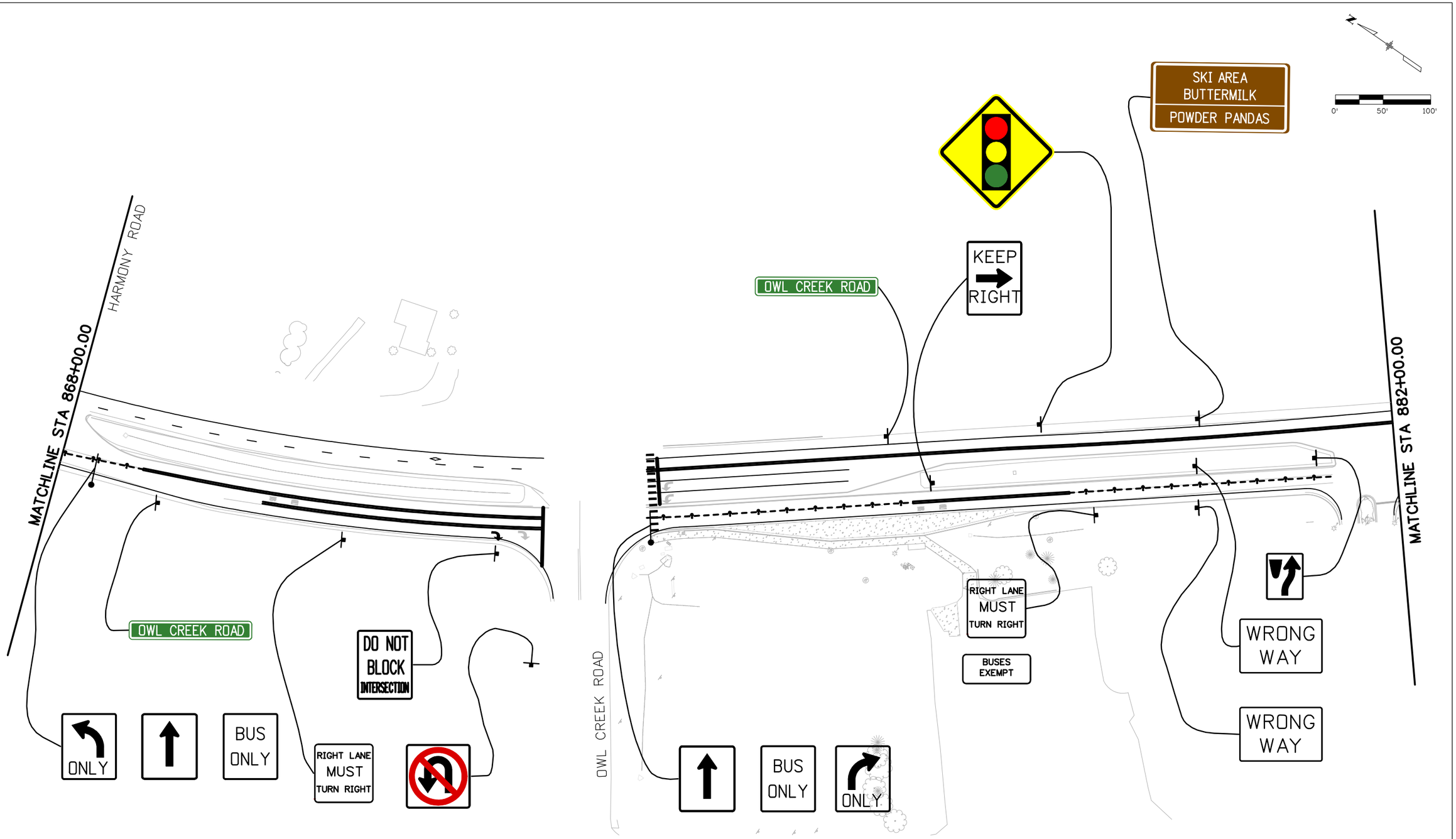

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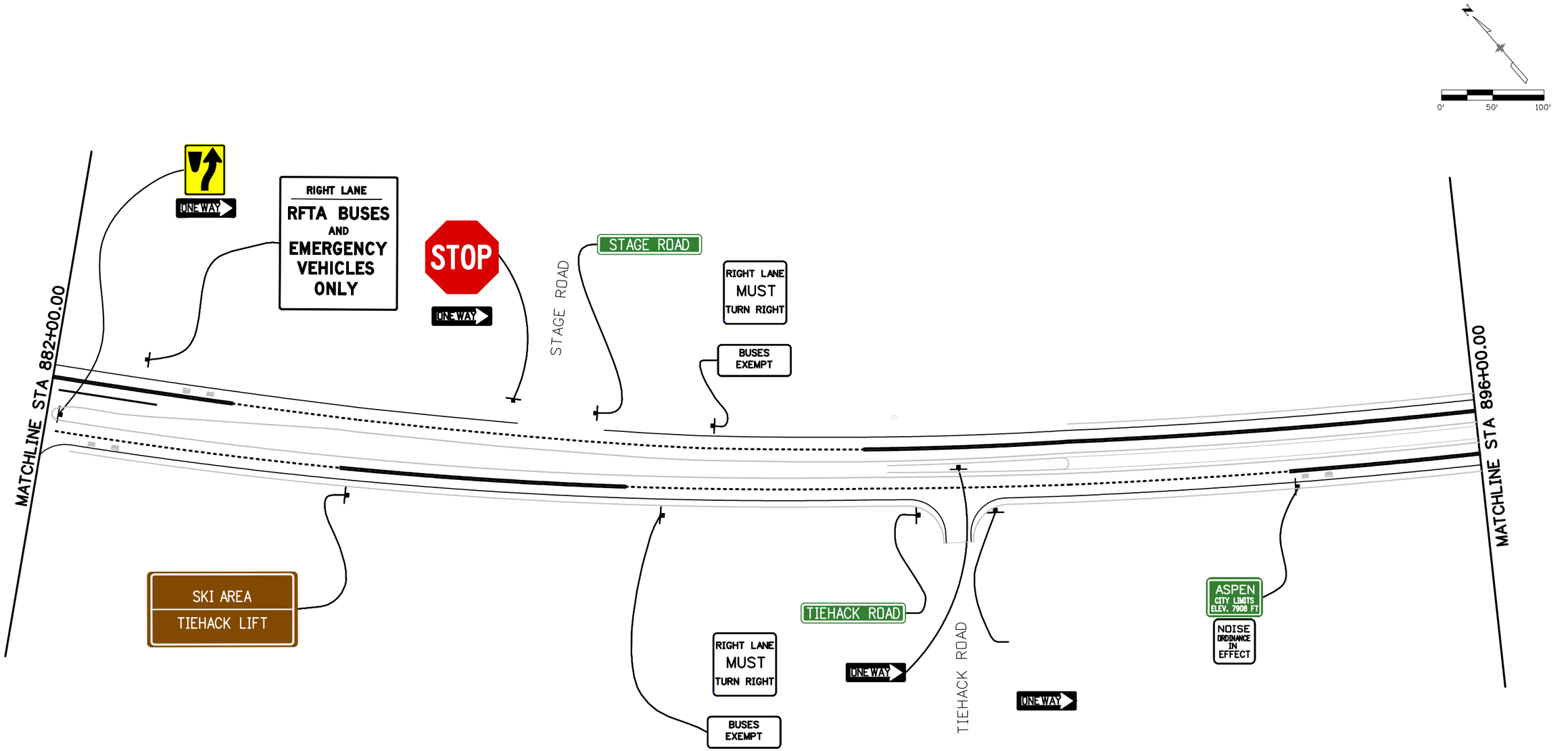

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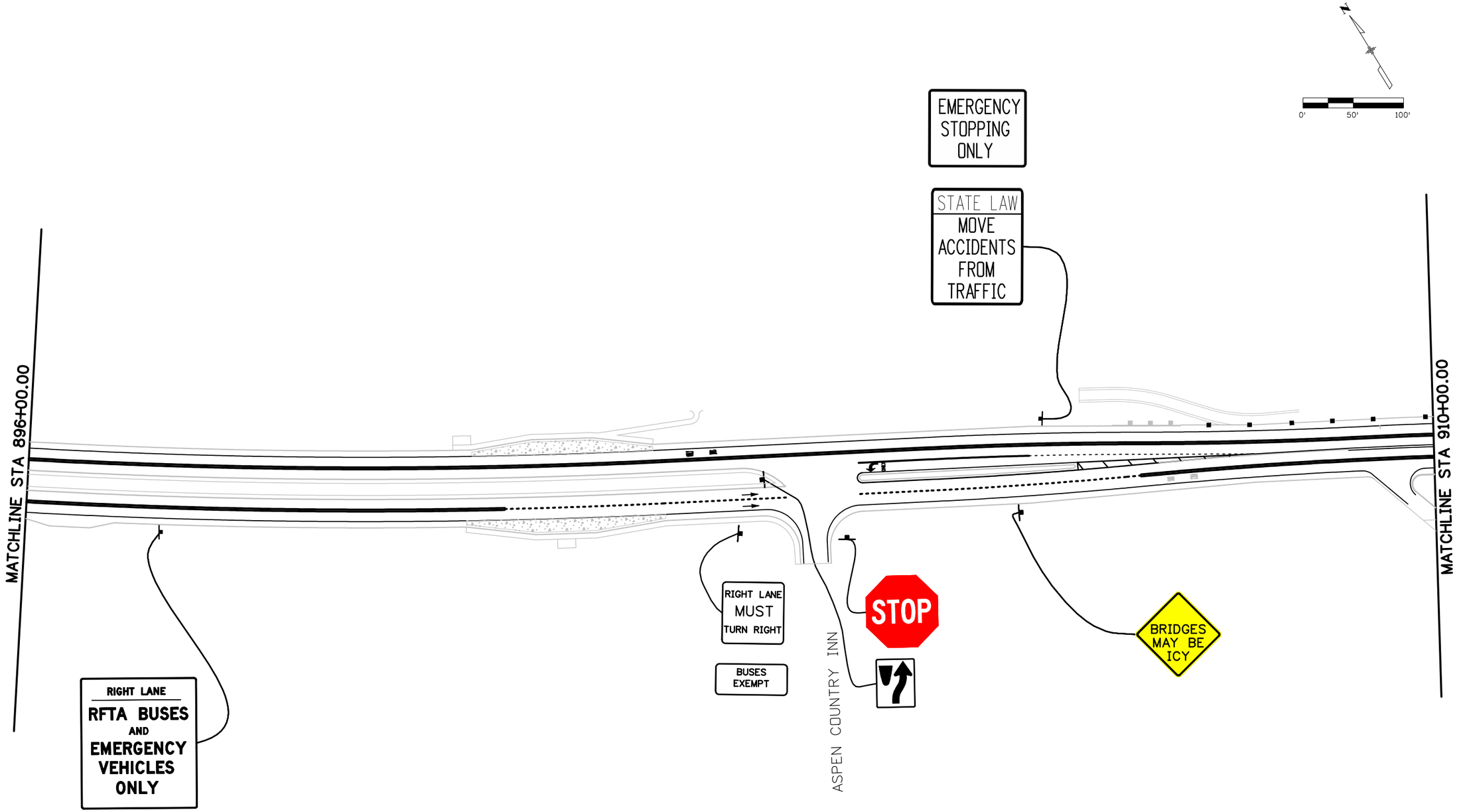

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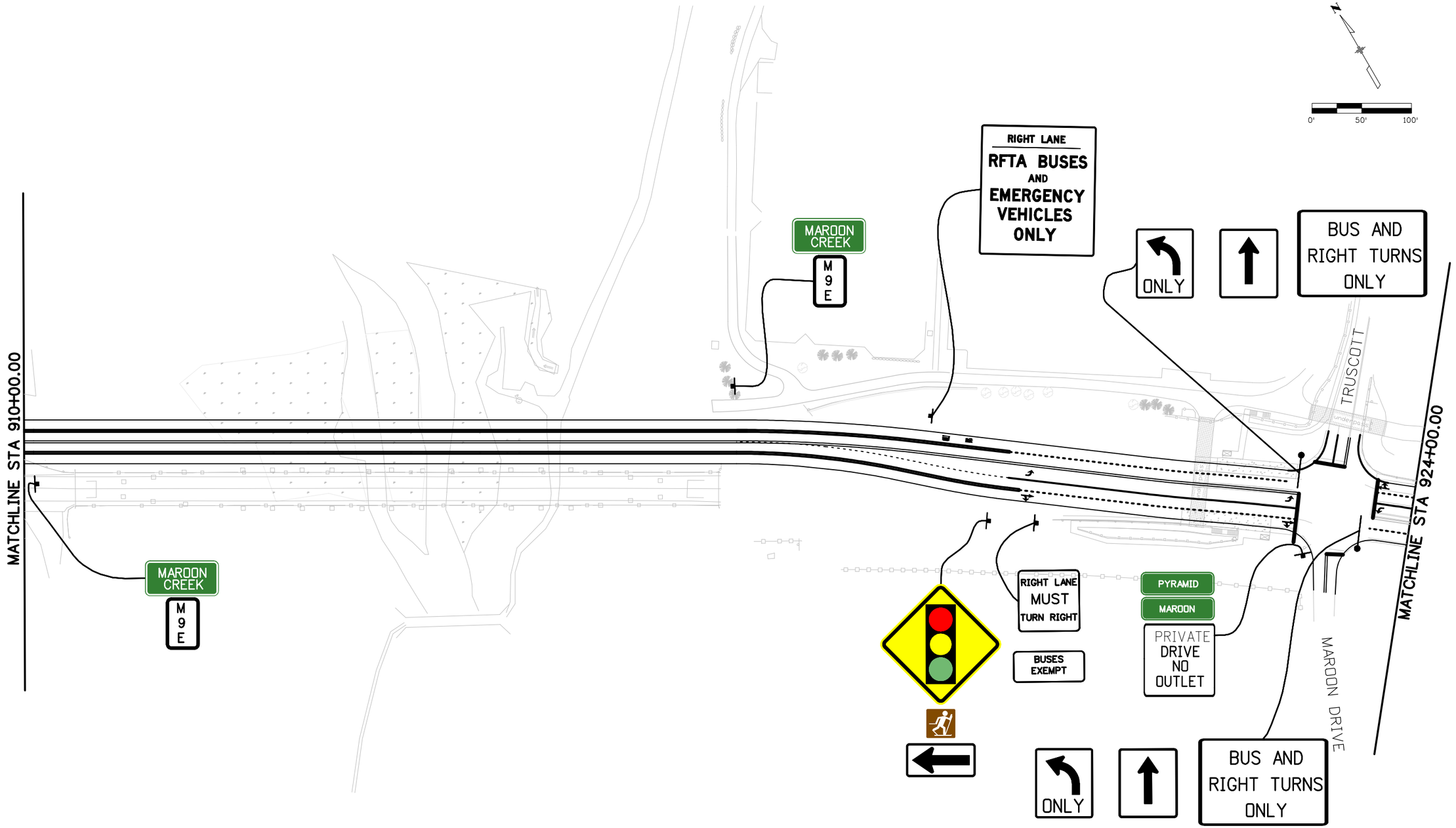

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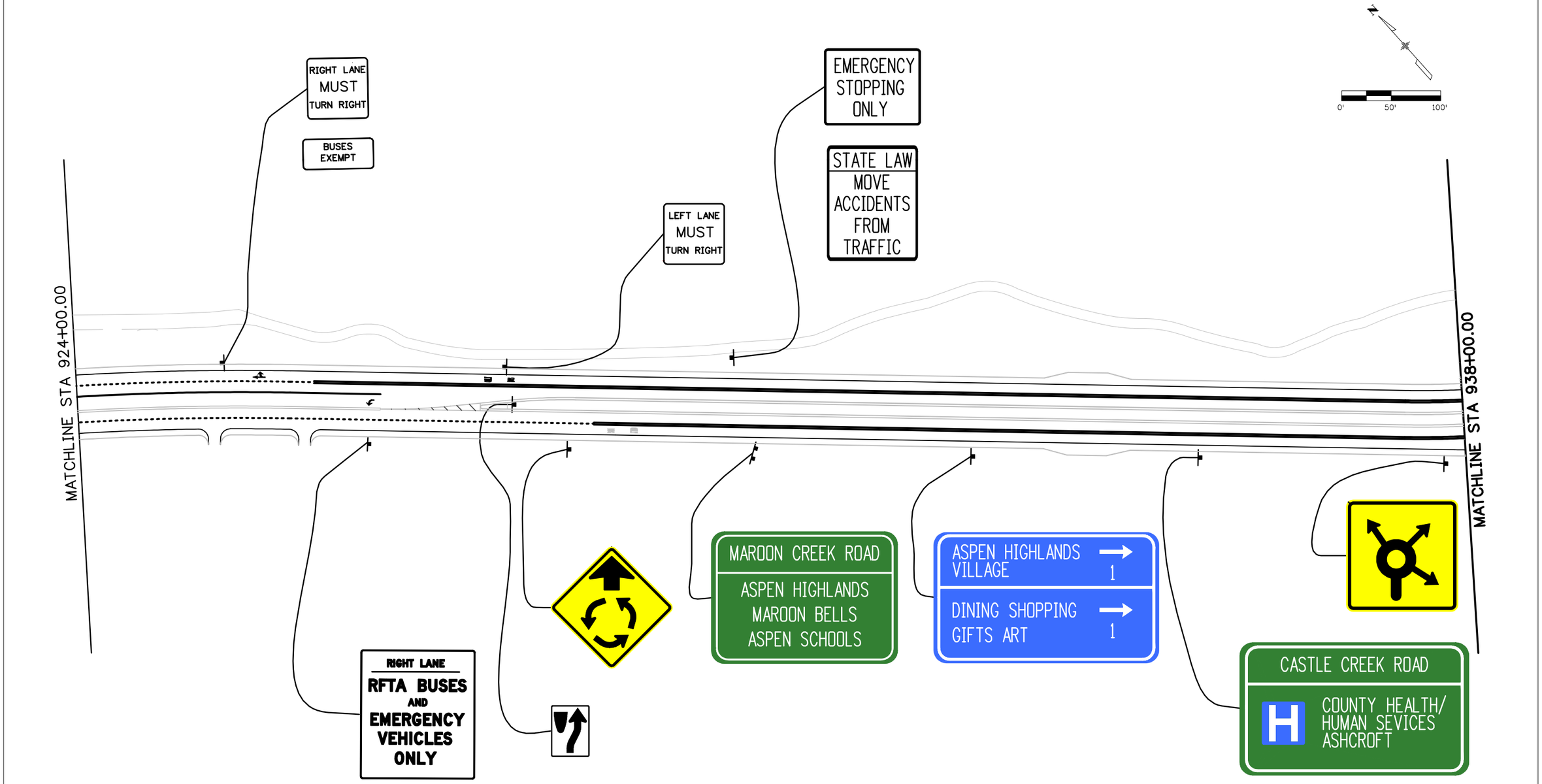
Unit Information Unit Leader Initials					Glenwood Springs, CO 81601	Void:	Designer: BWD / Structure Numbers:	16416
PARSONS 1700 Broadway Suite 900 Denver, CO 80290 (303) 863-7900					Phone: 970-945-8187 FAX: 970-945-6889		Detailer: SEH	
					Region 3 Glenwood Springs Residency PLM		Sheet Subset: SIGNING / Subset Sheets: 7 of 9	Sheet Number 143



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Unit Information Unit Leader Initials	(CR-1) 05-19-08	ADDED EMERGENCY PULLOUT	BWD	
PARSONS 1700 Broadway Suite 900 Denver, CO 80290 (303) 863-7900				

Colorado Department of Transportation
DEPARTMENT OF TRANSPORTATION
202 Centennial Street
Glenwood Springs, CO 81601
Phone: 970-945-8187 FAX: 970-945-6889
Region 3 Glenwood Springs Residency PLM

As Constructed
No Revisions:
Revised:
Void:

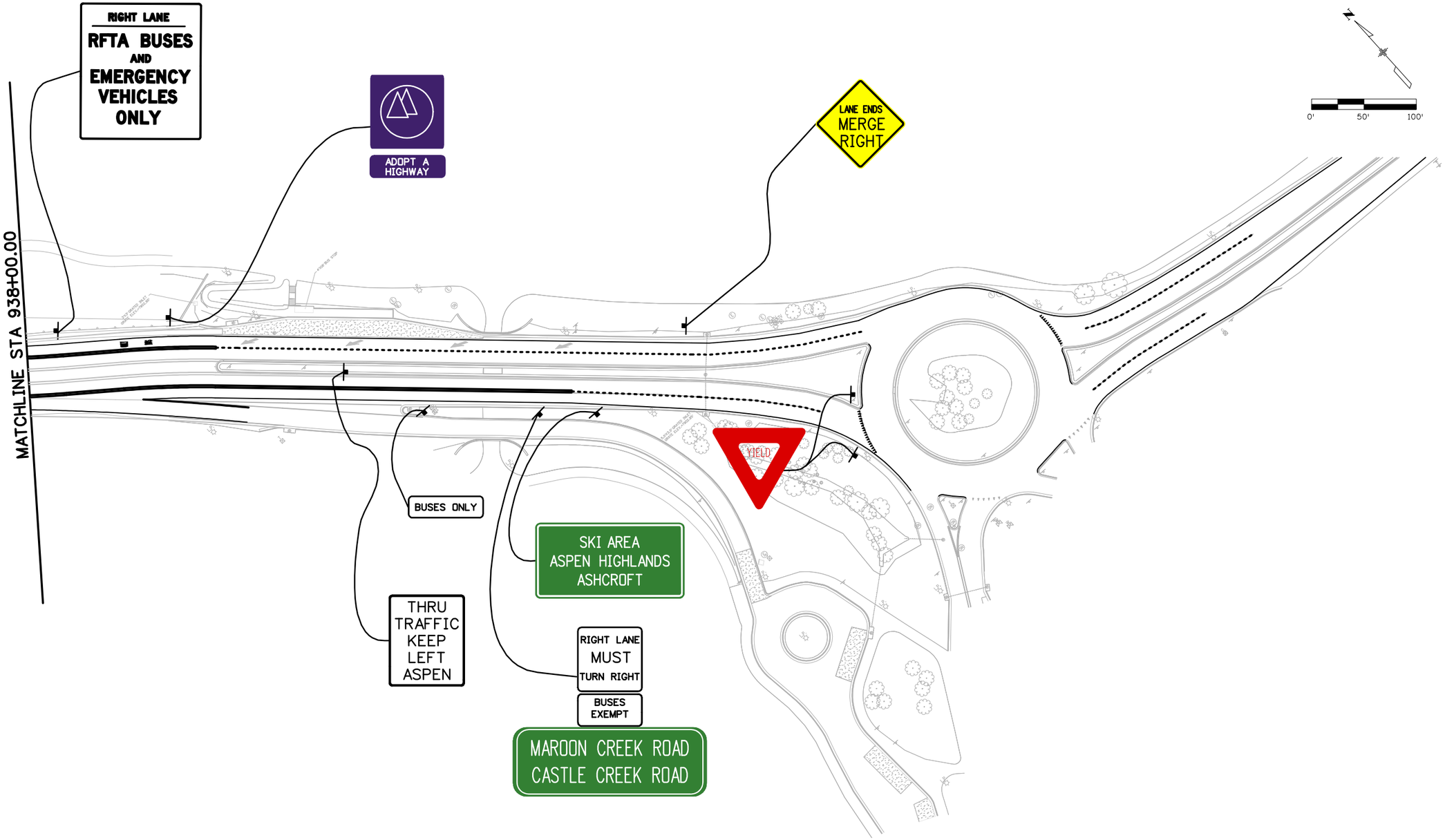
SH 82 BUS LANE EXTENSION

SIGNING AND STRIPING

STA 924+00 TO 938+00

Designer:	BWD	Structure Numbers	
Detailer:	SEH		
Sheet Subset:	SIGNING	Subset Sheets:	8 of 9

Project No./Code	
CC 0821-084	
16416	
Sheet Number	144



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Unit Information Unit Leader Initials				
PARSONS 1700 Broadway Suite 900 Denver, CO 80290 (303) 863-7900				

Colorado Department of Transportation
DEPARTMENT OF TRANSPORTATION
202 Centennial Street
Glenwood Springs, CO 81601
Phone: 970-945-8187 FAX: 970-945-6889
Region 3 Glenwood Springs Residency PLM

As Constructed
No Revisions:
Revised:
Void:

SH 82 BUS LANE EXTENSION
SIGNING AND STRIPING
STA 938+00 TO PROJECT END

Designer:	BWD	Structure Numbers	
Detailer:	SEH		
Sheet Subset:	SIGNING	Subset Sheets:	9 of 9

Project No./Code
CC 0821-084
16416
Sheet Number 145

APPENDIX B AGREEMENT BETWEEN CDOT AND THE CITY OF ASPEN

THE PARTIES NOW AGREE THAT:

Section 1. Scope of Work

The Contractor shall perform all "maintenance services" for the certain State Highway System segments described herein, located within the Contractor's jurisdiction, for a total length of 3.44 miles ("the Highways")

3.44 _ miles on State Highway 82 from MP 39.0 to MP 42.44

Such services and highways are further detailed in Section 5.

In addition, the parties agree to provide maintenance services specifically for the Maroon Creek Bridge (MP 39.071 to MP 39.409) as outlined in Exhibit A.

Section 2. Order of Precedence

In the event of conflicts or inconsistencies between this contract and its exhibits, such conflicts or inconsistencies shall be resolved by reference to the documents in the following order of priority:

1. Special Provisions contained in section 22 of this contract
2. This contract
3. Exhibit A (Scope of Work)
4. Exhibits C and D (Contract Modification Tools)
5. Other Exhibits in descending order of their attachment.

Section 3. Term

This contract shall be effective upon approval of the State Controller or designee, or on the date made, whichever is later. The term of this contract shall be for **a term of FIVE (5) years.** Provided, however, that the State's financial obligation for each subsequent, consecutive fiscal year of that term after the first fiscal year shall be subject to and contingent upon funds for each subsequent year being appropriated, budgeted, and otherwise made available therefore.

Section 4. Project Funding and Payment Provisions

A. The Local Agency has estimated the total cost of the work and is prepared to accept the state funding for the work, as evidenced by an appropriate ordinance or resolution duly passed and adopted by the authorized representatives of the Local Agency, which expressly authorizes the Local Agency to enter into this contract and to complete the work under the project. A copy of this ordinance or resolution is attached hereto and incorporated herein as Exhibit B.

B. Subject to the terms of this Contract, for the satisfactory performance of the maintenance services on the Highways, as described in Section 5, the State shall pay the Contractor on a lump sum basis,

a copy of that Manual from the State before it performs any maintenance services under this Contract. ("Maintenance services" do not include reconstruction of portions of the highways destroyed by major disasters, fires, floods, or Acts of God. Provided, however, that the Contractor shall give the State immediate notice of the existence of any such conditions on the Highways.)

1. Maintenance services to be performed by the Contractor, at State expense, for the Highways under this Contract shall include (without limitation) the following services:

   a. MP 39.00 – MP 40.00
      Pot Hole Repair only
   b. MP 40.00 – MP 42.44
      Pot Hole Repair, Snow Removal, Sanding and Salting
   c. Warning the State's representative of any "dangerous condition" (as that term is defined in §24-10-103(1) C.R.S., as amended), and/or repairing that condition.
   d. Inspecting State Highway signing and regulatory devices on the Highways at least weekly and notifying the State's Region Transportation Director as soon as the Contractor has notice of any State Highway signing and regulatory devices in need of repair.

2. From MP 40.0 to MP 42.44 the contractor shall also continue to perform, at its own expense, all activities/duties on the Highways that Contractor is required to perform by §43-2-135 (1) (a) and (e), C.R.S., as amended, including, but not limited to: cutting weeds and grasses within the State's right of way; fence maintenance; cleaning of roadways, including storm sewer inlets and catch basins; cleaning of ditches; and repairing of drainage structures, excluding storm sewers.

C. The Contractor shall perform all maintenance services on an annual basis. The Contractor's performance of such services shall comply with the same standards that are currently used by the State for the State's performance of such services, for similar type highways with similar use, in that year, as determined by the State. The State's Regional Transportation Director, or his representative, shall determine the then current applicable maintenance standards for the maintenance services. Any standards/directions provided by the State's representative to the Contractor concerning the maintenance services shall be in writing. The Contractor shall contact the State Region office and obtain those standards before the Contractor performs such services.

D. The Contractor shall perform the maintenance services in a satisfactory manner and in accordance with the terms of this Contract. The State reserves the right to determine the proper quantity and quality of the maintenance services performed by the Contractor, as well as the adequacy of such services, under this Contract. The State may withhold payment, if necessary, until Contractor performs the maintenance services to the State's satisfaction. The State will notify the Contractor in writing of any deficiency in the maintenance services. The Contractor shall commence corrective action within 24 hours of receiving actual or constructive notice of

MAROON CREEK BRIDGE
SCOPE OF SERVICES

I. NEW HIGHWAY BRIDGE

1. BRIDGE DRAINAGE SYSTEM
   a. CDOT Responsibility
      - Maintain the Hydro carbon separator, per manufacturers recommendations (Up valley end).
      - Maintain inlet, pipes, ditch, and drywell (Down valley end).

   b. City of Aspen Responsibility
      - Maintain inlets, pipes, and forebay pond (Up valley end).

2. STRUCTURE/MAINLINE
   a. CDOT responsibility
      - Maintain bridge and all highway bridge related facilities.
      - Provide snow plowing, deicing and trash removal.
      - Making safe, repairing, spot reconditioning, spot stabilization and spot seal coating including shoulders and damage caused by ordinary washouts.

   b. City of Aspen responsibility
      - Provide snow hauling and sweeping.
      - Provide Pothole Patching.

3. PEDESTRIAN TRAIL (ON NEW HIGHWAY BRIDGE)
   a. CDOT Responsibility
      - Maintain Type 7 concrete barrier.
      - Maintain bridge railing and surface.

   b. City of Aspen Responsibility
      - Provide snow removal.
      - Provide sweeping, trash removal.
      - Maintain pedestrian lighting.

4. UTILITIES
   a. City of Aspen responsibility
      - Maintain Waterline installed through bridge structure.

II. OLD HIGHWAY BRIDGE

a. CDOT is responsible for maintaining all aspects of the old highway bridge.

III. TRAIL SYSTEM

a. The City of Aspen will maintain the trail system on the highway bridge and trail connections including snow removal pedestrian lighting, trail surface repair, trash removal, sweeping and striping.

IV. DRAINAGE PONDS AND WETLANDS

a. The City of Aspen will maintain the drainage ponds and wetlands.

V. MAROON CREEK BRIDGE ITEMS COVERED UNDER SEPARATE AGREEMENTS

1. CDOT maintenance access to new and old bridges.
   - Covered by separate License or Easement Agreement.

2. Landscape and Irrigation maintenance
   - Covered by separate Landscape Agreement.

3. Golf Course Parking Lot
   - Already in Project P, S, & E.

APPENDIX C CRS 43-2-135, DIVISION OF AUTHORITY

43-2-135. Division of authority over streets.

(1) The jurisdiction, control, and duty of the state, cities, cities and counties, and incorporated towns with respect to streets which are a part of the state highway system is as follows:

(a) The city, city and county, and incorporated town shall exercise full responsibility for and control over any such street beyond and including the curbs and, if no curb is installed, beyond the traveled way, its contiguous shoulders, and appurtenances; except that the regulation and control of driveways shall be subject to the provisions of section 43-2-147.

(b) The department of transportation has authority to prohibit the suspension of signs, banners, or decorations above the portion of such streets between the curbs or portion used for highway purposes up to a vertical height of twenty feet above the surface of the roadway.

(c) The city, city and county, or incorporated town at its own expense shall maintain all underground facilities in such streets and has the right to construct such underground facilities as may be necessary in such streets.

(d) The city, city and county, or incorporated town has the right to grant the privilege to open the surface of any such street, but all damages occasioned thereby shall promptly be repaired either by the city, city and county, or incorporated town itself or at its direction.

(e) The city, city and county, or incorporated town at its own expense shall provide street illumination and shall clean all such streets, including storm sewer inlets and catch basins.

(f) The department of transportation has the right to utilize all storm sewers on such highways without cost; and if new storm sewer facilities are necessary in construction of streets by the department of transportation, the cost of such facilities shall be borne by the state and municipality as may be mutually agreed upon between the department of transportation and the local governing body of the city, city and county, or incorporated town.

(g) Cities, cities and counties, and incorporated towns shall regulate and enforce all traffic and parking restrictions on streets which are state highways, but all regulations adopted after December 31, 1979, shall be approved in writing by the department of transportation before becoming effective on such streets; except that such regulations shall become effective on such streets sixty days after receipt for review by the department of transportation if not disapproved in writing by said department during that sixty-day period.

(h) The department of transportation shall erect, control, and maintain at state expense all route markers and directional signs, except street signs on those streets.

(i) The department of transportation shall install, operate, maintain, and control at state expense all traffic control signals, signs, and traffic control devices on state highways in cities, the city and county of Denver, the city and county of Broomfield, and incorporated towns. No local authority shall erect or maintain any stop sign or traffic control signal at any location so as to require the traffic on any state highway to stop before entering or crossing any intersecting highway unless approval in writing has first been obtained from the department of transportation. For the purpose of this paragraph (i), striping, lane-marking, and channelization are considered traffic control devices.

(j) Rights-of-way for such street shall be acquired by either the city, city and county, or incorporated town or by the state as is mutually agreed upon. Costs of acquiring such rights-of-way may be at the sole expense of the state or the city, city and county, or incorporated town, or both, as may be mutually agreed. Title to all rights-of-way so acquired shall vest in the city, city and county, or incorporated town, or the state, according to the agreement under which said rights-of-way were secured.

(k) The department of transportation is authorized to acquire rights-of-way by purchase, gift, or condemnation for any such streets, highways, and bridges. Any such condemnation proceeding shall be exercised in the manner provided by law for condemnation proceedings to acquire lands required for state highways. Nothing in this section shall be construed as abrogating the rights of home rule cities to acquire lands for state purposes in the manner set forth in the charter of said cities.

Source: L. 53: p. 526, § 35. **CRS 53:** § 120-13-35. **C.R.S. 1963:** § 120-13-35. **L. 71:** p. 202, § 10. **L. 74:** (1)(i) amended, p. 358, § 1, effective July 1. **L. 79:** (1)(g) amended, p. 1598, § 2, effective May 18. **L. 80:** (1)(a) amended, p. 798, § 66, effective June 5. **L. 91:** (1)(b), (1)(f) to (1)(i), and (1) (k) amended, p. 1105, § 147, effective July 1. **L. 2001:** (1)(i) amended, p. 273, § 27, effective November 15.

ANNOTATION

Municipal regulations relating to traffic and parking on highway-streets subject to approval by highway department. This section declares that cities, cities and counties, and incorporated towns shall regulate and enforce traffic and parking restrictions on all highway-streets within the municipal boundaries, but provides that all regulations shall be subject to approval of the department of highways before becoming effective. This section also purports to divide authority over streets which are part of the state highway system. It defines in detail the obligations of cities, cities and counties, and incorporated towns with respect to streets which are a part of the state highway system. City & County of Denver v. Pike, 140 Colo. 17, 342 P.2d 688 (1959).

Where state has recognized right to regulate, no prior approval required. Where the right of a city to regulate speed on a freeway bisecting a city has been recognized by the state, allowing the city to post the highway and enforce its ordinances, it is not necessary for the city to obtain prior approval of its regulations before they could become effective. City & County of Denver v. Pike, 140 Colo. 17, 342 P.2d 688 (1959).

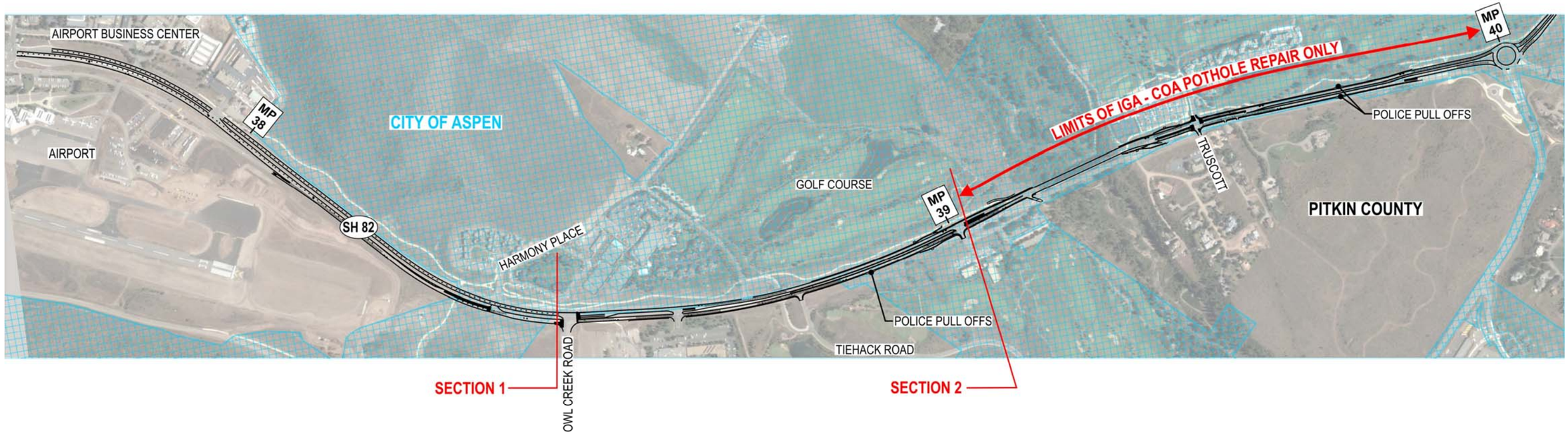
This section authorizes resort to agreement concerning the acquisition of property; however, it is only an optional method and is permissible as a substitute for proceedings in condemnation. Town of Greenwood Village v. District Court, 138 Colo. 283, 332 P.2d 210 (1958).

Considering paragraphs (j) and (k) of subsection (1) together, paragraph (j) is permissive only and does not make consent of a town a prerequisite to condemnation of private property within its corporate limits, or to condemnation of public property already in use for street purposes, the fee title to which lies in a town. Town of Greenwood Village v. District Court, 138 Colo. 283, 332 P.2d 210 (1958).

The department of highways can lawfully condemn public or private property within a municipality for the purpose of continuing state highways into or through cities or towns. The principle is identical as far as acquisition of park lands by the state is concerned. Welch v. City & County of Denver, 141 Colo. 587, 349 P.2d 352 (1960).

State not compelled to condemn where city and state have agreement. Where agreement was reached between the state and the city where the city granted the state the right to construct a highway on park land, the state was not compelled to institute condemnation proceedings. By enacting the ordinances authorizing the use of park lands for highway purposes, all was accomplished by agreement that would otherwise have had to be accomplished by condemnation proceedings. Welch v. City & County of Denver, 141 Colo. 587, 349 P.2d 352 (1960).

APPENDIX D JURISDICTIONAL BOUNDARIES



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Jurisdictional Boundaries

APPENDIX E MAINTENANCE RESPONSIBILITIES CROSS-SECTIONS

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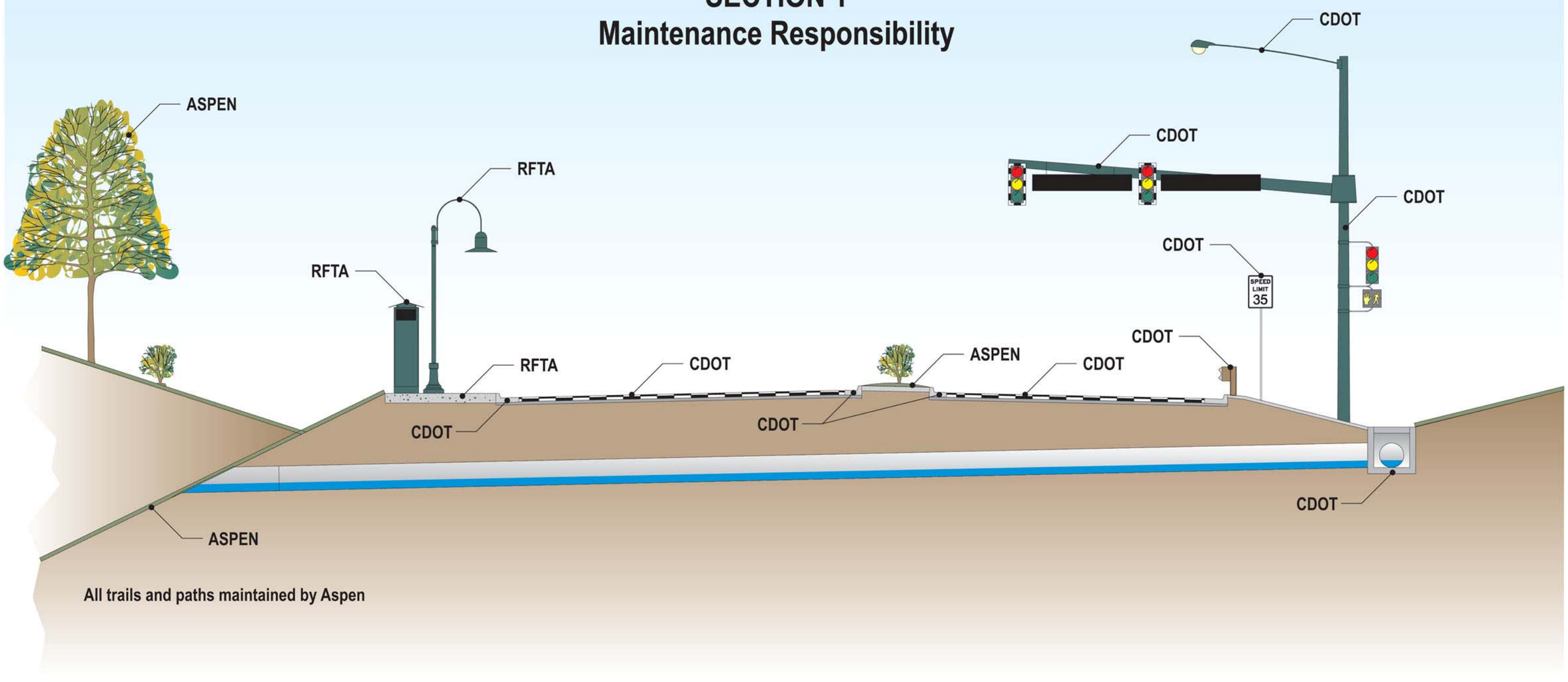
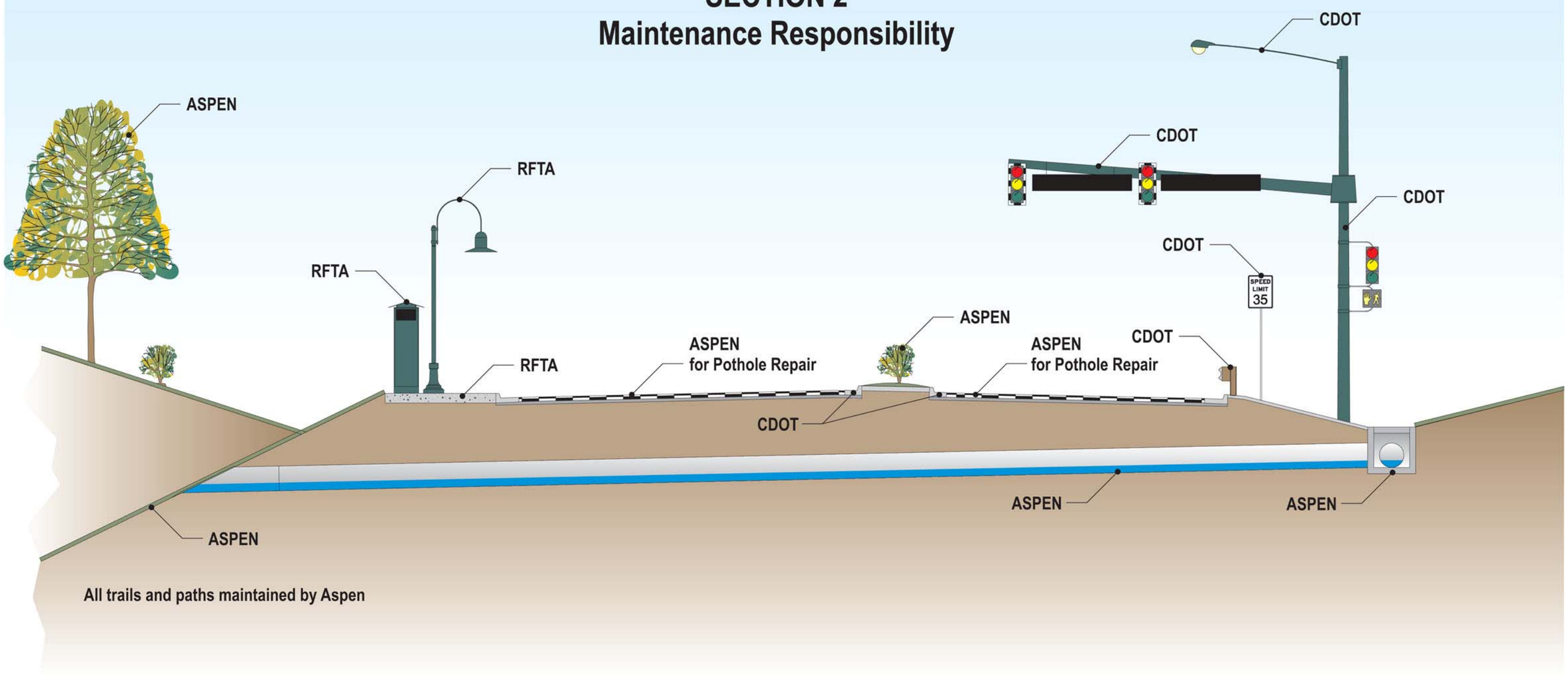
Maintenance Responsibility



Typical Section

SECTION 2
Maintenance Responsibility



Typical Section