AGENDA ITEM or FINAL CONTRACT REVIEW SUBMITTAL FORM

AgendaTitle:
City of Gunnison - Access Control Plan Presentation

Action Requested: Discussion

Parties to the Agreement: City of Gunnison & Gunnison County

Term Begins: **Term Ends:** **Grant Contract #:**

Summary:
City of Gunnison - Access Control Plan Presentation.

Fiscal Impact: ?

Submitted by: B. Lucero for M. Crosby **Submitter's Email Address:** Mcrosby@gunnisoncounty.org

Finance Review: (●) Required ( ) Not Required

Comments:

Reviewed by: Lnienhueser Discharge Date: 6/13/2013

County Attorney Review: (●) Required ( ) Not Required

Comments:

No legal action contemplated at this time db 6/13/13

Reviewed by: DBaumgarten Discharge Date: 6/13/2013 Certificate of Insurance Required Yes ( ) No (●)

County Manager Review:

Comments:

Reviewed by: MBirnie Discharge Date: 6/14/2013

( ) Consent Agenda ( ) Regular Agenda (●) Worksession Time Allotted: 45 Minutes

Agenda Date: 6/18/2013 Follow Up Agenda Date: N/A

Revised April 2013

Why Speed Limits?

Speed limits are supposed to do two things. The primary purpose of speed limits is to enhance safety by reducing risks imposed by drivers speed choices. The intent is to reduce disparities in speeds and reduce the potential for vehicle conflicts. A related function of speed limits is to provide the basis for enforcement and sanctions for those who drive at speeds excessive for conditions and endanger others.

LAW

Prima facie speed limits are those which, "on the face of it," are reasonable and prudent under normal conditions. Normally a driver may exceed a prima facie limit if it is safe to do so; however it is up to the driver to prove that he was driving in a safe manner under existing conditions.

In Colorado, basic prima facie speed limits are:

- 20 mph on narrow, winding mountain roads
- 25 mph in any business district
- 30 mph in any residential district
- 40 mph on open mountain highways

Absolute speed limits are those which may not be legally exceeded under any circumstances. These are:

- 65 mph on open highways
- 75 mph on rural interstate routes

Section 42-4-1102, Colorado Revised Statutes, requires that speed limits are not to be higher or lower than the basic prima facie speed limits unless a Traffic Investigation has justified the change. This law applies to all State Highways, County Roads and City Streets. For State Highways, including portions within municipal corporate limits, the Investigation to justify an increase or decrease of existing speed limits is normally conducted by, and approved by, the Safety and Traffic Engineering Branch of the Colorado Department of Transportation.

Each Investigation to determine an appropriate speed limit should consider the following factors applicable to the portion of road being studied.

- Prevailing speed data (85th percentile)
- Roadside development
- Accident experience
- Road characteristics
- Pace speed
- Parking practices/pedestrian activity

The use of vehicle speed data as one of the factors evaluated for selecting a suitable speed limit is based upon the following fundamental concepts deeply rooted in the United States system of government and law:

A) Laws cannot be effectively enforced without the consent and voluntary compliance of the public;

B) Laws are established for the protection of the public and the regulation of the unreasonable behavior of a few individuals;

C) The normally careful and competent actions of a reasonable person should be considered legal;

D) Most drivers are reasonable people who will drive carefully at a speed which is suitable for existing conditions.

MISCONCEPTIONS

It is a popular misconception that reducing the speed limit will automatically slow the speed of traffic, while raising the speed limit will automatically cause an increase in the speed of traffic.

"Before and After" speed studies show that there are no significant changes in vehicle speeds after speed limits are changed. "Before and After" accident studies usually do not show any significant change in accident rates after speed limits are increased or decreased. National studies go further and say that "it is generally at the upper boundary of a speed range where crash involvement rates are lowest."

UNREALISTIC SPEED LIMITS

Traffic investigations have shown that most people will drive the roadway as they perceive the conditions and will ignore a speed limit that is unrealistically too low or too high. A realistic speed limit is voluntarily obeyed by the reasonable majority and more enforcement effort can be applied to the unreasonable few who drive too fast or too slow.

An unrealistic speed limit that is "too low" will:

A) Make the behavior of the majority unlawful;

B) If enforced - cause antagonism toward enforcement personnel and traffic laws in general;

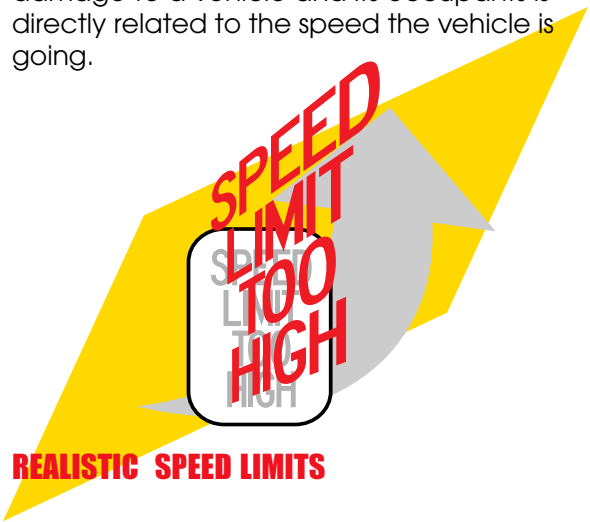
C) Create a bad image of the community for visitors and tourists;

D) Result in speed differentials in the traffic flow.

Speed as it relates to accident causality is primarily related to speed differentials. Speed differential is the range of vehicle speeds within the traffic stream. A large variation in these speeds complicates the driving task and necessitates sudden braking, multiple lane changes and other compensating driving maneuvers.

A speed limit properly set, will establish a middle ground for all drivers encouraging some to speed up while enticing others to slow down. This then reduces turbulence within the traffic stream and limits conflict points and reduces accidents.

There is no question, however, that speed plays a role in accident severity. Once an accident has begun to occur the degree of damage to a vehicle and its occupants is directly related to the speed the vehicle is going.



REALISTIC SPEED LIMITS

An appropriate, "just right" speed limit will result in the maximum number of vehicles traveling at about the same speed, thus reducing conflicts caused by speed differentials. The 85th percentile speed, that speed at or below which 85% of the traffic is moving, is widely accepted as being closest to that "just right" speed limit - a case of Majority Rule. Of course, other Traffic Investigation factors must be taken into consideration.

Following are some reasons for establishing realistic speed limits:

A) To provide guidance to the driver, especially strangers to the area, as to what is a suitable speed for normal conditions;

B) Reasonable speed limits with adequate signing tend to reduce the speed difference between vehicles. The accident rate is less when the majority of vehicles are traveling at about the same speed;

C) To furnish enforcement personnel with a guide as to what is an appropriate speed for a segment of road so that enforcement actions may be consistent and fair;

D) To improve the overall credibility of all traffic control devices.

WHAT YOU CAN DO

Anyone may report a road segment where the speed limit seems to be too high or too low. If the segment is a portion of county road or city street, contact should be made with that county or municipality. If the segment is a portion of the State Highway System, including U.S. and Interstate routes, contact should be with the Region's Traffic and Safety Engineer of the Colorado Department of Transportation.

DOT
DEPARTMENT OF TRANSPORTATION

Safety and Traffic Engineering Branch
4201 East Arkansas Avenue
EP Suite 770
Denver, Colorado 80222

8/02

Establishing Realistic SPEED LIMITS

From:	Marlene Crosby
To:	Katherine Haase; Bobbie Lucero
Subject:	FW: Joint BOCC/CC Meeting - Access Control Plan
Date:	Wednesday, June 12, 2013 11:52:41 AM
Attachments:	Gunnison City Council Presentation 1.pdf Establishing_Realistic_Speed_Limits_Brochure.pdf

---

From: Michelle Hansen [mailto:michelle@stolfusandassociates.com]
Sent: Wednesday, June 12, 2013 11:50 AM
To: Marlene Crosby; Gail Davidson; Andie Ruggera
Cc: Daniel.Roussin@STATE.CO.US; Ken Coleman; Bill Fox (fox@foxtuttle.com); Steve Westbay; Kent Harbert (kent.harbert@state.co.us)
Subject: RE: Joint BOCC/CC Meeting - Access Control Plan

Marlene, Gail and Andie,

Please find attached the packet information for the joint Board of County Commissioners/City Council meeting for the US 50 Access Plan. The packet includes the slides from the powerpoint presentation, including exhibits from the Draft Access Plan. As confirmed with Steve, I plan to review the topics we covered in March to bring the new City Council members and any Commissioners that were unable to attend the March meeting up to speed on the background of the plan. I've added some information about the public process completed thus far. I've also attached CDOT's brochure on establishing realistic speed limits to include at the back of the presentation. Please let me know if you have any questions or comments or if you need anything else.

My understanding is that we are on the agenda at 8:30 am on Tuesday at the Board of County Commissioners Boardroom. I'll be coming into town on Monday night. I can bring a computer and projector or I can bring a flash drive to connect into the County's system. Let me know what's easiest on your end. I'm on the road all day Monday, so if anyone needs to get a hold of me you can reach me at 720-771-3056.

Thank you and I look forward to seeing everyone on Tuesday morning.

Michelle

Michelle R. Hansen, PE
Stolfus & Associates, Inc.
(303) 221-2330

From: Marlene Crosby [mailto:MCrosby@gunnisoncounty.org]
Sent: Friday, May 03, 2013 12:53 PM
To: Michelle Hansen; Steve Westbay
Cc: Daniel.Roussin@STATE.CO.US; Gail Davidson; Ken Coleman; Bill Fox (fox@foxtuttle.com); Andie

Ruggera
Subject: RE: Joint BOCC/CC Meeting - Access Control Plan

For the Board of County Commissioners it will be by 10:00 AM on June 13th. If you send it to me I will add the cover sheet and submit it for the packet.
Marlene

From: Michelle Hansen [mailto:michelle@stolfusandassociates.com]
Sent: Friday, May 03, 2013 12:47 PM
To: Steve Westbay
Cc: Daniel.Roussin@STATE.CO.US; Gail Davidson; Marlene Crosby; Ken Coleman; Bill Fox (fox@foxtuttle.com); Andie Ruggera
Subject: RE: Joint BOCC/CC Meeting - Access Control Plan

Thanks Steve. Can you confirm the packet submittal deadline for me when you get a chance?

Michelle

From: Steve Westbay [mailto:swestbay@cityofgunnison-co.gov]
Sent: Friday, May 03, 2013 10:36 AM
To: Michelle Hansen
Cc: Daniel.Roussin@STATE.CO.US; Gail Davidson; mcrosby@gunnisoncounty.org; Ken Coleman; Bill Fox (fox@foxtuttle.com); Andie Ruggera
Subject: Joint BOCC/CC Meeting - Access Control Plan

Michelle,

The County will be hosting the joint BOCC/CC meeting on June 18th. The meeting will be held sometime in the morning and will be scheduled for about 45 minutes. The specific meeting time has not yet been set.
Please feel free to contact me if you have any questions.

Steve Westbay
City of Gunnison
Community Development Director

970-641-8152
swestbay@cityofgunnison-co.gov

US 50 Access Study
Gunnison, CO

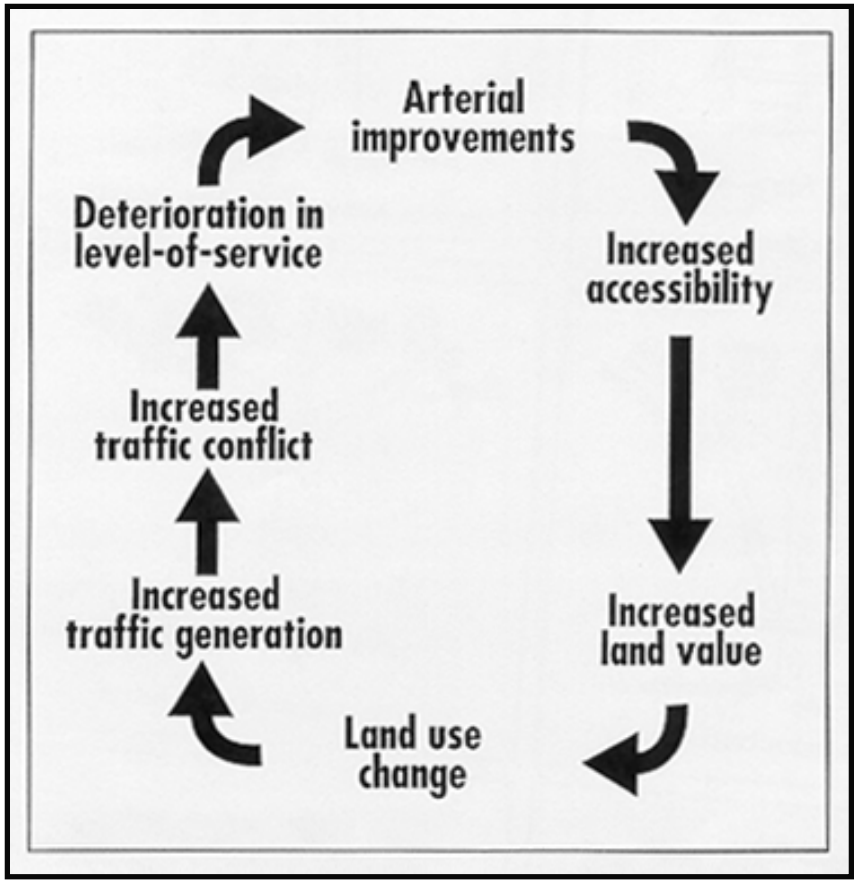
Michelle Hansen, PE
Stolfus & Associates, Inc.

Purpose of Presentation

- Review access management
- Discuss the Draft Access Plan
- Request consent to present the Final Draft Plan to the Public

Access Management is a tool that can help a community achieve their goals by managing the

Transportation / Land Use Cycle



Legislation in 1979

- Our Legislature Passed the Highway Access Law in 1979 (§ 43-2-147 CRS)

•Gave authority to counties & municipalities to adopt access management standards and procedures for roads under their jurisdiction.

•Ordered the State Transportation Commission to adopt new access rules.

City of Gunnison
Municipal Code

"Provides safe, easy access to parcels
while controlling access onto the road network"

(Section 15.10.030, B., 5.)

Gunnison County
Access Permits

Access permits are required for driveways accessing a County, State or Federal Road.

<u>Driveways Accessing a County Road:</u>

Obtain a Gunnison County Access Permit from the Gunnison County Public Works Department

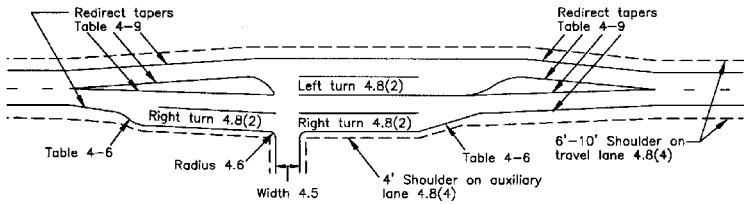
<u>Driveways Accessing a State or Federal Road:</u>

Obtain a Highway Access Permit from CDOT

State Highway Access Code

- Assigns access category to each highway.
- Sets procedures and standards.
- Requires Permits for <u>each</u> access.
- Requires developers to fund mitigation of their impact to the public road at each access.
- State Highway Access Code is LAW

Figure 4 - 1: Information Guide to Basic Auxiliary Lane Elements



(2) Necessary Components Determining Speed Change Lane Length

(a) The components of an auxiliary turn lane consists of transition taper, full width auxiliary lane, and storage length. The use of these three components varies according to the assigned access category and to some extent, site specific conditions. Table 4 - 5 summarizes the components of speed change lanes when such lanes are required by the category standards. Read the category requirements and subsection 3.5 to determine if any speed change lanes are required. Table 4 - 5 is provided to be used in conjunction with table 4 - 6.

Table 4 - 5: Components of Speed Change Lane Length

Access Category	Left turn deceleration lane	Right turn deceleration lane	Acceleration lane
F-W	Design must meet federal interstate standards, and no less then E-X		
E-X	taper + decel.length+storage	taper + decel. length	accel.length + taper
R-A	* decel. length + storage	* decel. length	* accel. length
R-B	* decel. length + storage	* decel. length	* accel. length
NR-A	* decel. length + storage	* decel. length	* accel. length
NR-B	taper + storage	taper + storage	* accel. length
NR-B >40mph	* decel. length	*decel. length	* accel. length
NR-C	taper + storage	taper + storage	* accel. length
NR-C >40mph	* decel. length	* decel. length	* accel. length

Gunnison and Gunnison County's Role in Access Management

- Require developers to apply for an Access Permit.
- Consider access management when developing a community land use plan.

CDOT's Role in Access Management

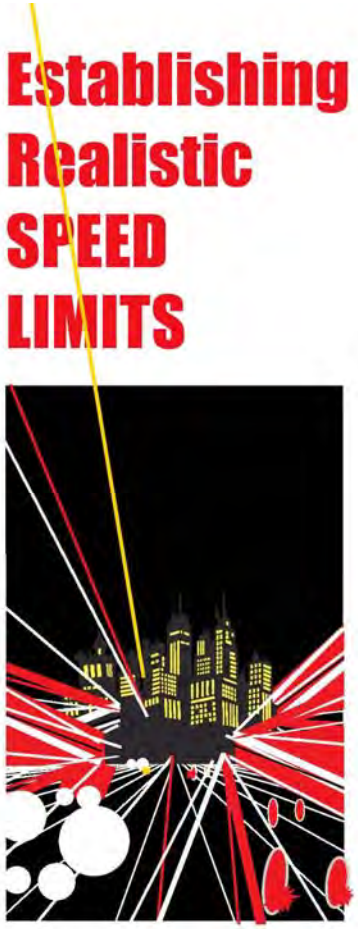
- Enforce the State Highway Access Code.
- Require improvements that are consistent with the SHAC AND the City's and County's vision.

Access Control Plans

- Defined by State Highway Access Code (SHAC)
- Corridor-wide analysis vs. isolated individual access point analysis (i.e. first come-first served)
- Flexibility for corridor specific conditions
- When adopted replaces the criteria for location and movements allowed as defined by SHAC
- Requires an IGA by all governing entities
- Implemented over time – no immediate changes
- Can be amended

Relationship between Access Control Plans and Speed Limits

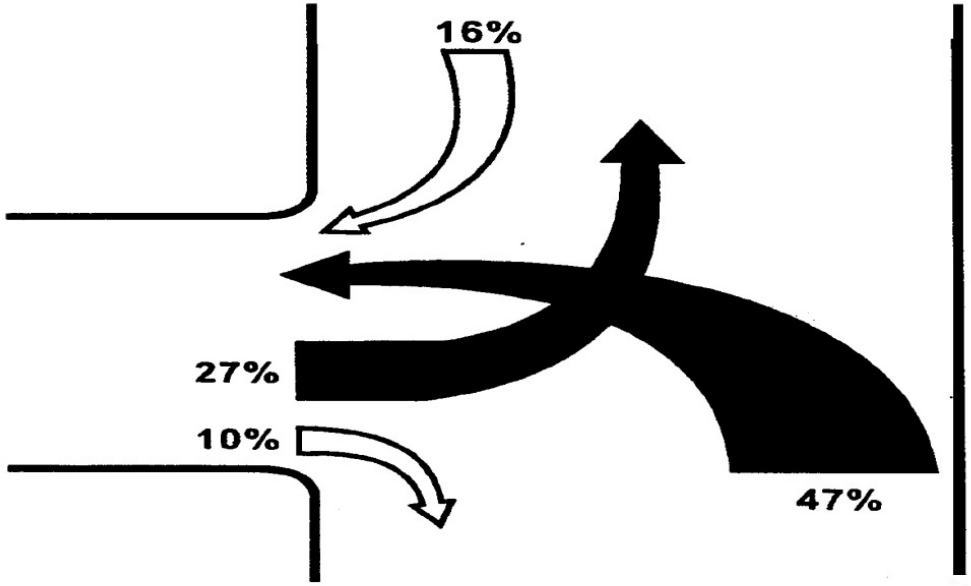
- Access Control Plans cannot establish speed limits.
- Speed studies are used to establish speed limits.
  - Considerations include prevailing speed, roadside development, roadway geometry, user types, accident history, etc.
- ACP's use existing speed limits to:
  - Define physical limits of intersection infrastructure.
  - Understand progression through the corridor.
- Refer to CDOT's Establishing Realistic Speed Limits Brochure



Benefits of Access Management

Safety

- Conflict points & decision points reduced
- Crashes reduced by up to 30% to 60%
- Severe crashes reduced by 25% to 31%



Percentage of Driveway Crashes by Movement

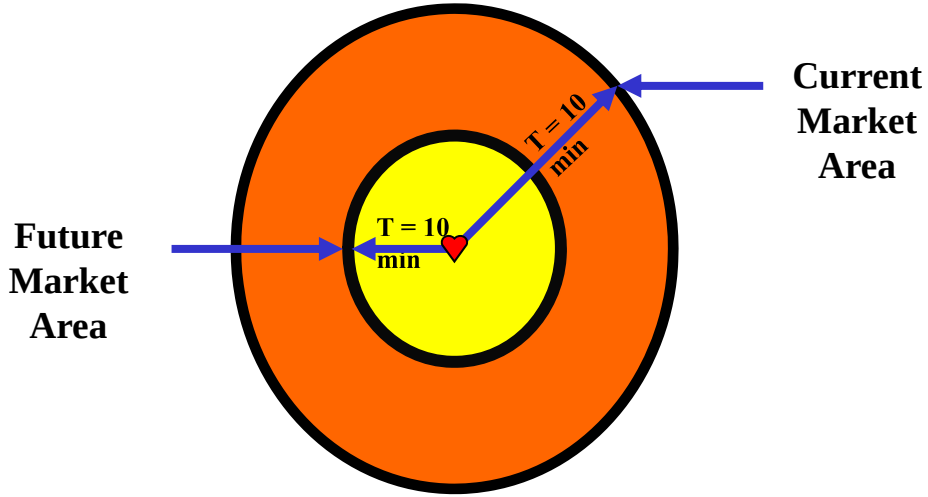
Benefits of Access Management

Preserve Traffic Flow

- Capacity increased by 20% to 40%
- Less delay and reduced travel times
- Greater fuel efficiency – less air pollution

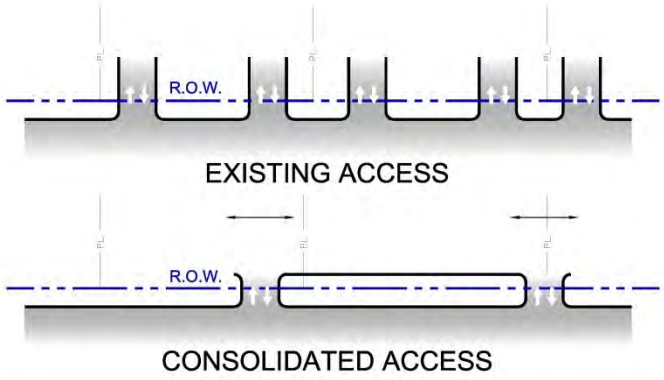
Good Access Control is Good for Business

- Retain the original retail market area as traffic volumes increase.
- Safe & predictable access for customers.
- Consistent application of requirements.
- Enhanced corridor appearance

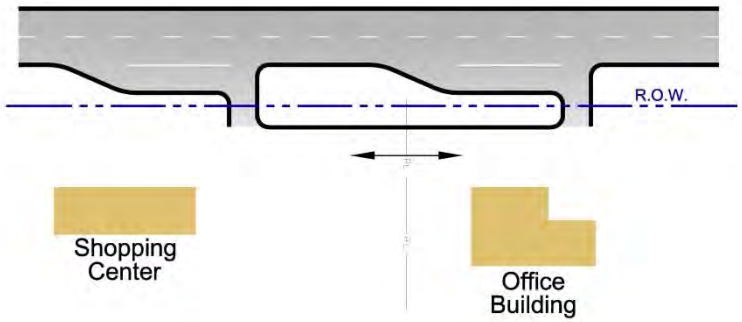


Access Management Principles & Techniques

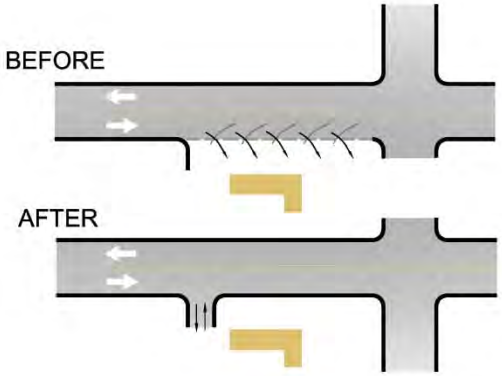
- Consolidate direct access to major roadways



Consolidate Access Points X



Connect adjacent properties



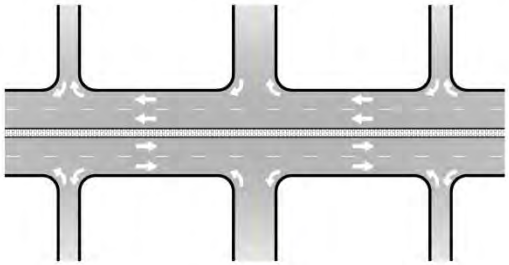
Define Driveways

Access Management Principles & Techniques

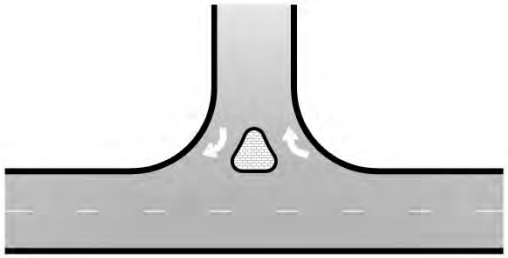
- Locate Signals/Intersections to provide efficient traffic flow
  - Space intersections for efficient signal progression
  - As traffic volumes increase, preserve cycle time for side street traffic to enter US 50
  - Turning movements are located at predictable locations resulting in smoother traffic flow
- Remove turning vehicles from through traffic lanes
  - Provide left and right turn lanes, if warranted

Access Management Principles & Techniques

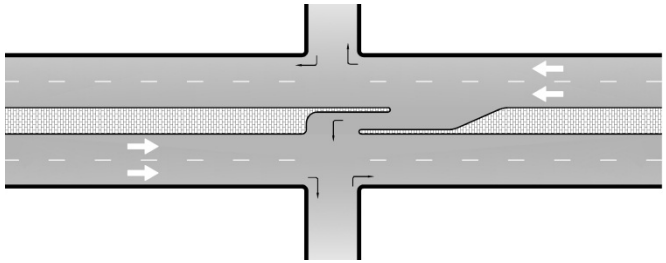
- Minimize locations where vehicles merge, split, or cross



Right-in/Right-out with Raised Median *

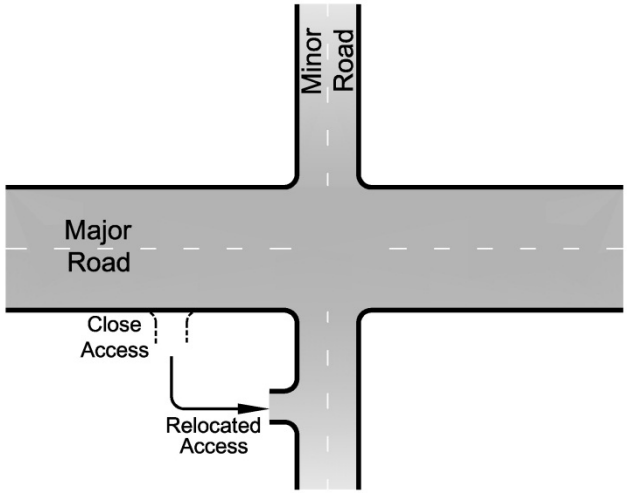


Right-in/Right-out with Channelizing Island *



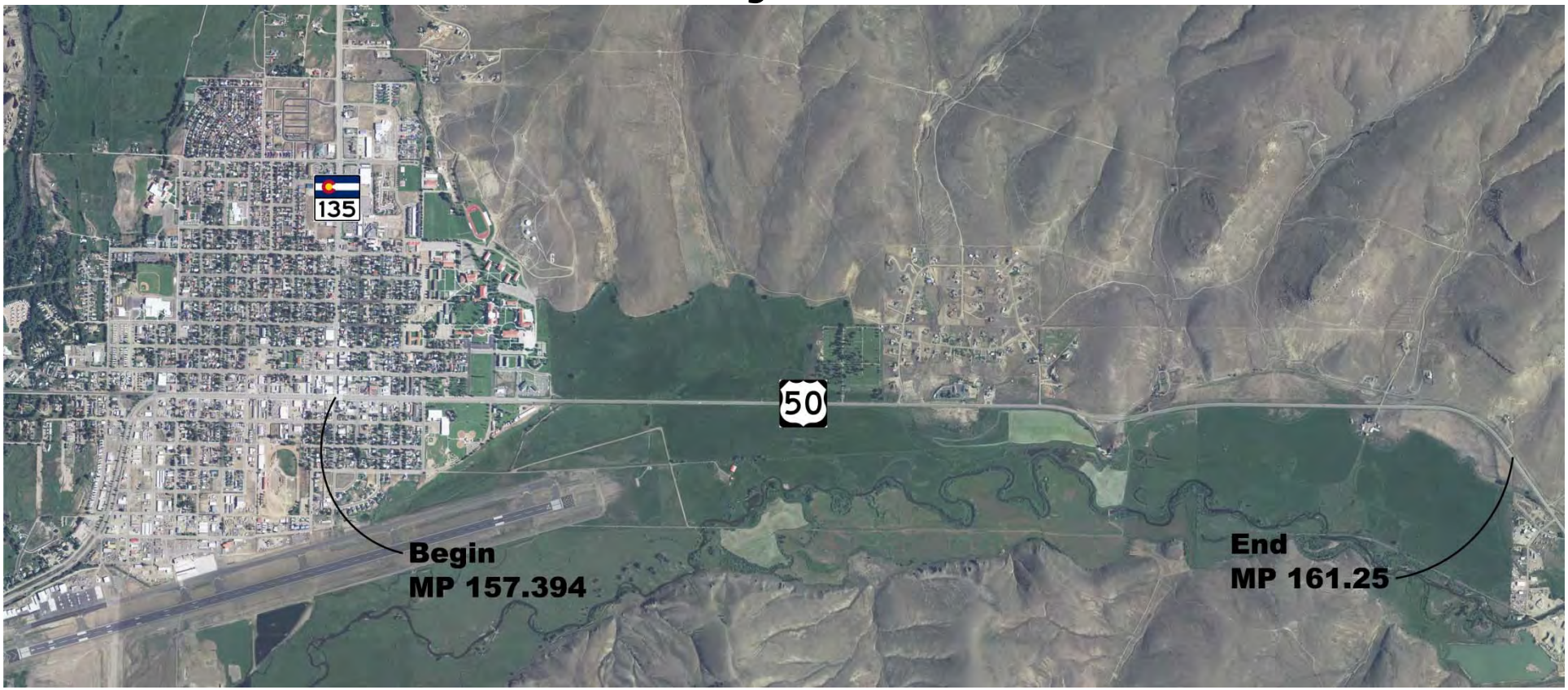
Directional Median Opening or ¾ Movement ▲

- Provide a supporting street and circulation system



Relocate Access to Side Street (consider impacts to side street – do no harm)

Study Area



PROJECT FACTS

- SH 135 to MP 161.25
- 3.9 miles

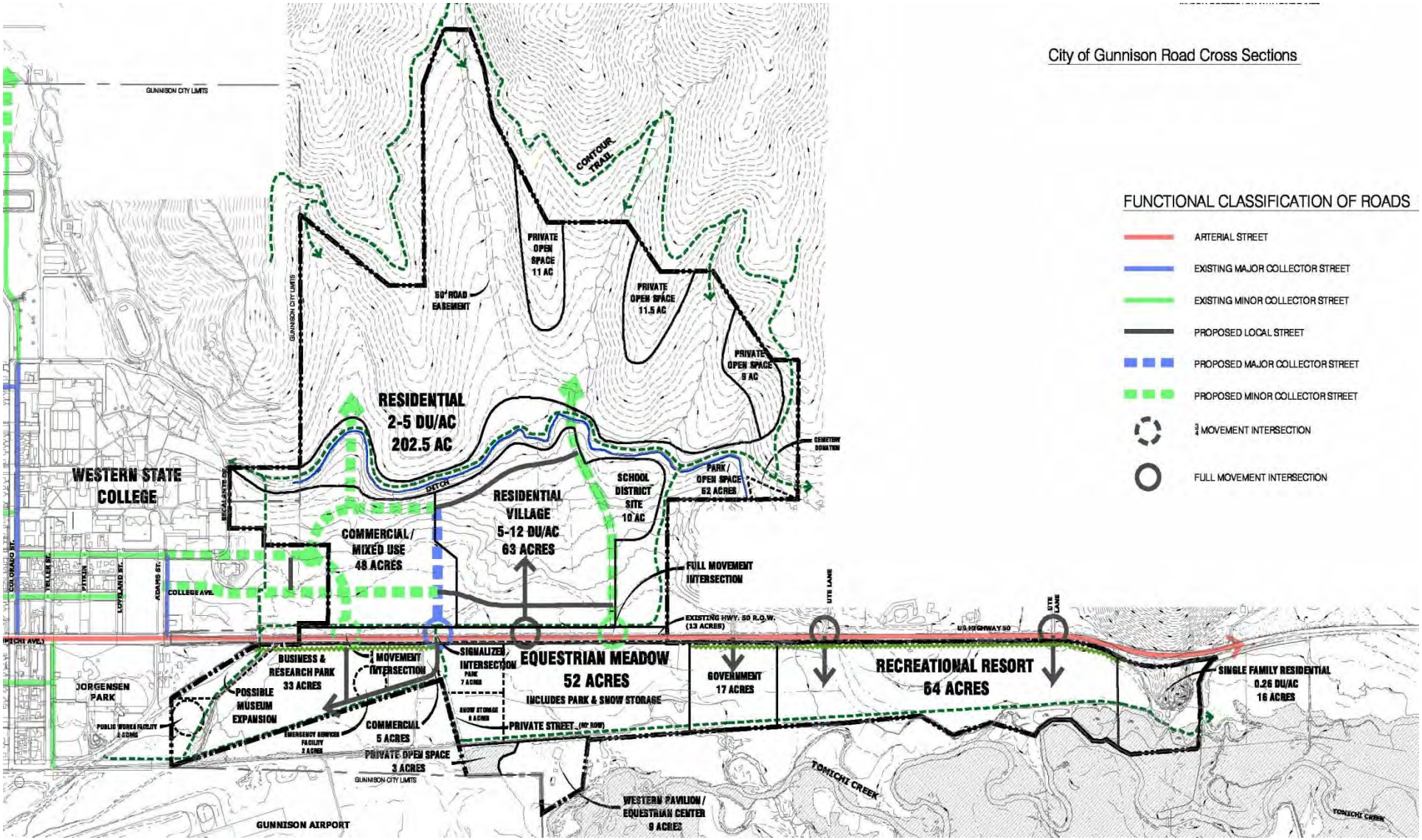
- Existing ADT: 5,700 – 12,300
- Projected ADT: 10,800 – 33,700

Tomichi Avenue

Today
12,000
Vehicles
per day

Projected
34,000
Vehicles
per day

Gunnison Rising Roadway Master Plan



Project Goals

- Identify locations and level of access for existing and future highway intersections that balance state and local transportation planning objectives.
- Provide a plan that is adoptable by all entities through a respectful and collaborative partnership.
- Provide safe and efficient access to and from US 50 for businesses and residents.
- Provide safe, effective, and efficient travel for traffic on US 50.

Project Goals

- Support the economic viability of the project area.
- Maintain compatibility with the intent of previous local planning efforts.
- Allow for phased implementation of improvements.
- Support the accommodation of alternative modes, including City and County trail systems.
- Maintain compatibility with existing and proposed off-highway circulation routes.

Implementation

If nothing changes, nothing changes.

The plan will be implemented in phases as changes occur in the City/County that generate the need. Construction of improvements may be publicly and/or privately funded.

The following cases trigger implementation:

1. Redevelopment that increases traffic by 20% or more.
2. Publicly funded project by the City, County, or CDOT
3. Safety or operational issue develops

The plan is a living document that can be amended.

Public Process

Open House

- Wednesday, April 3, 2013 from 4:00 to 7:00 p.m.
- Fred R Field Western Heritage Center, Gunnison County Fairgrounds
- Advertised: mailed approx. 120 post cards, public notice in the Gunnison Country Times, advertisement in the Gunnison County Shopper
- 15 people attended

Public Process

Staff Preview Open House

- Wednesday, April 3, 2013 from 2:30 to 3:30 p.m.
- 7 people attended

One-on-One Meetings

- Wednesday, April 24th
  Thursday, April 25th
- Contacted 21 people
- 9 meetings held

Plan Symbols

Full movement intersection

Right-in

Right-in/Right-out

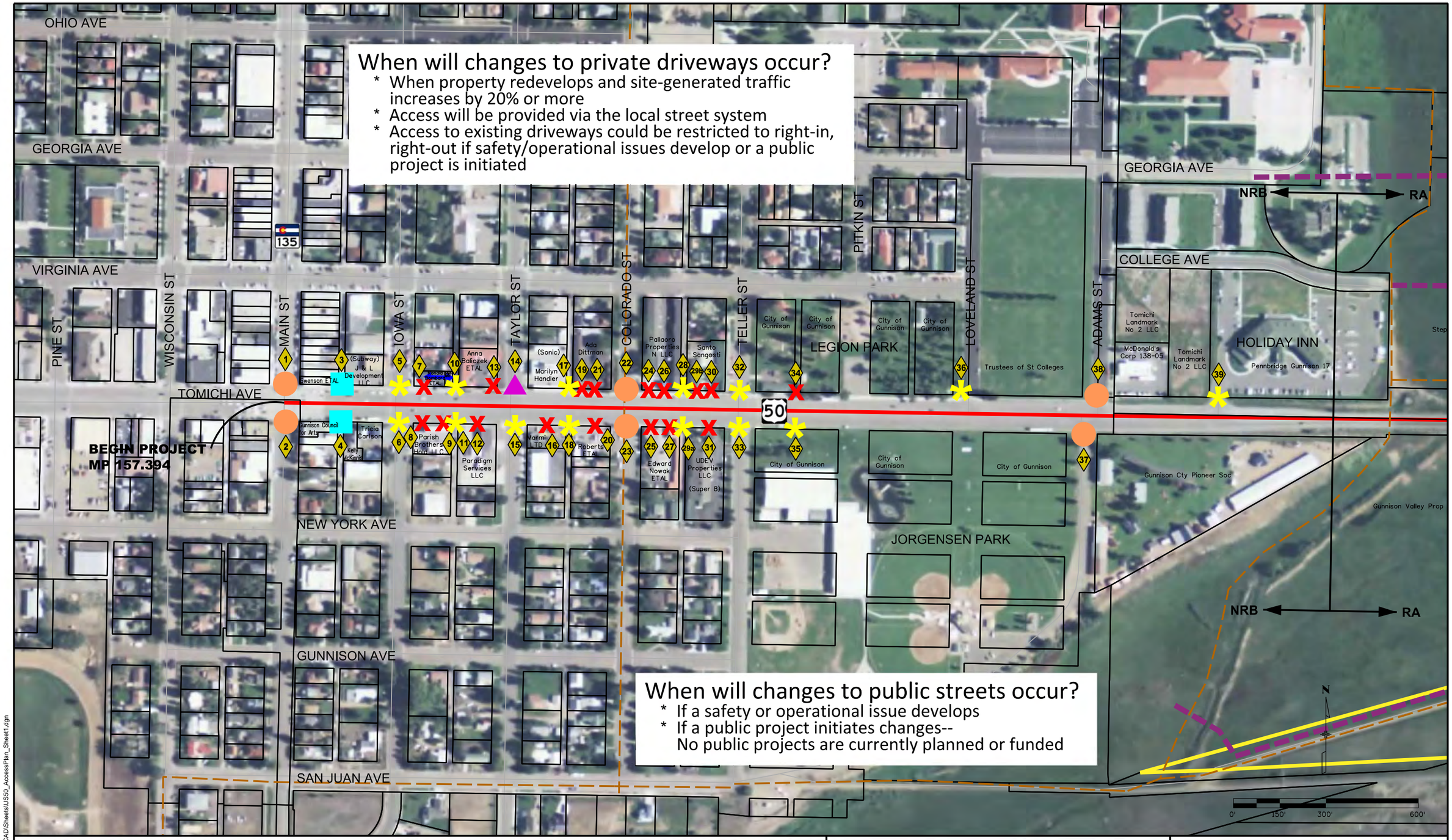
Three-quarter movement

X Closed access

Cross access required

Proposed street network

Trail network



LEGEND:

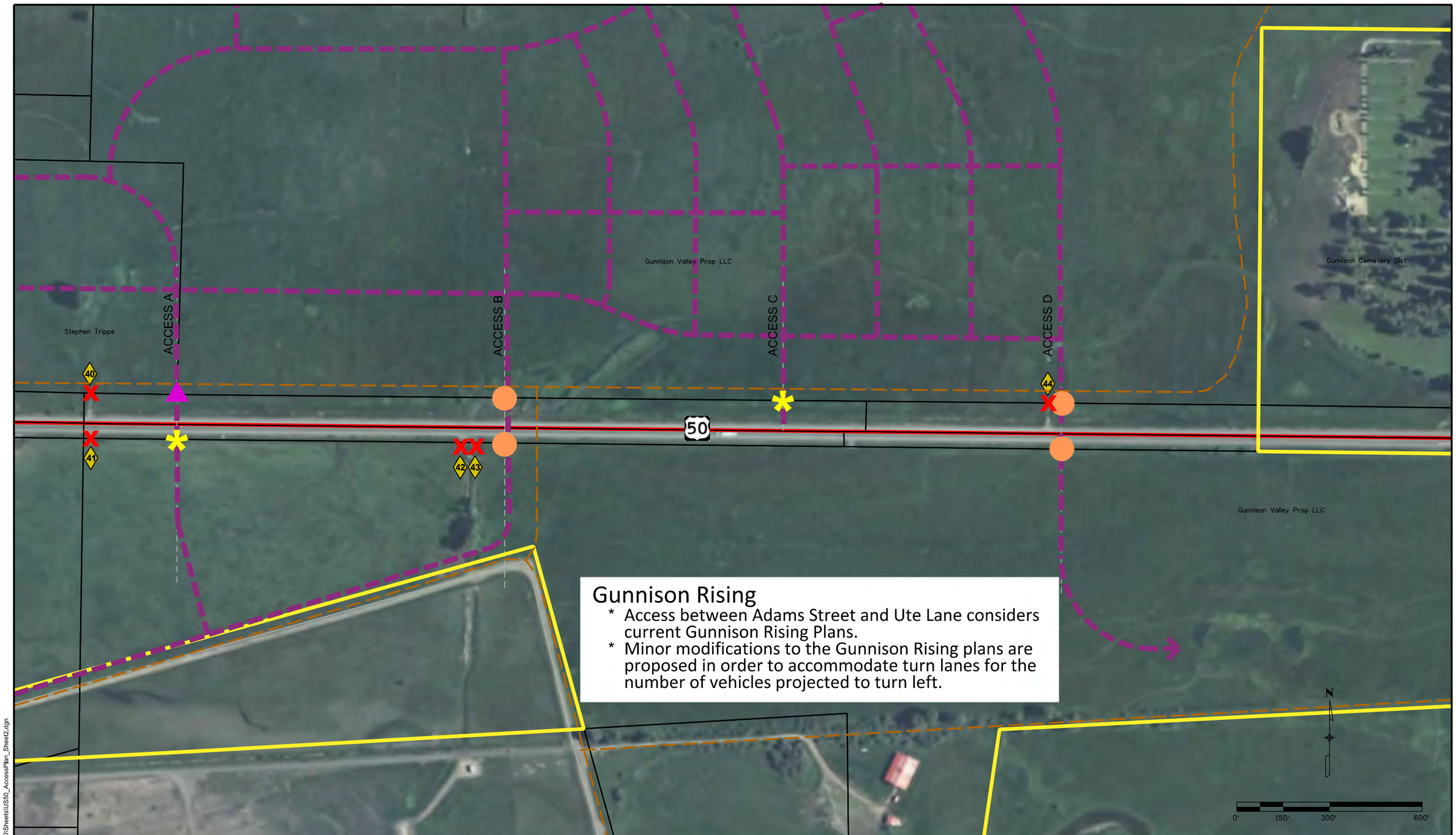
- Access Point
- Full Movement
- Right-In
- Right-In, Right-Out
- 3/4 Movement Left-In
- Close Existing Access Point
- Cross Access for Shared Access Point
- City Boundary
- Parcel Line
- Proposed Street Network
- Trail Network

Denotes changes to Access Plan since last open house held April 3, 2013.

US 50
ACCESS CONTROL PLAN

Print Date:	6/11/2013
File Name:	US50_AccessPlan_Sheet1.dgn
Horiz. Scale:	1:300

sarah 10:58:11 AM P:\12026\CAD\Sheets\US50_AccessPlan_Sheet1.dgn



LEGEND:

- Access Point
- Full Movement
- Right-In
- Right-In, Right-Out
- 3/4 Movement Left-In
- Close Existing Access Point
- Cross Access for Shared Access Point
- City Boundary
- Parcel Line
- Proposed Street Network
- Trail Network

Denotes changes to Access Plan since last open house held April 3, 2013.

Gunnison County COLORADO

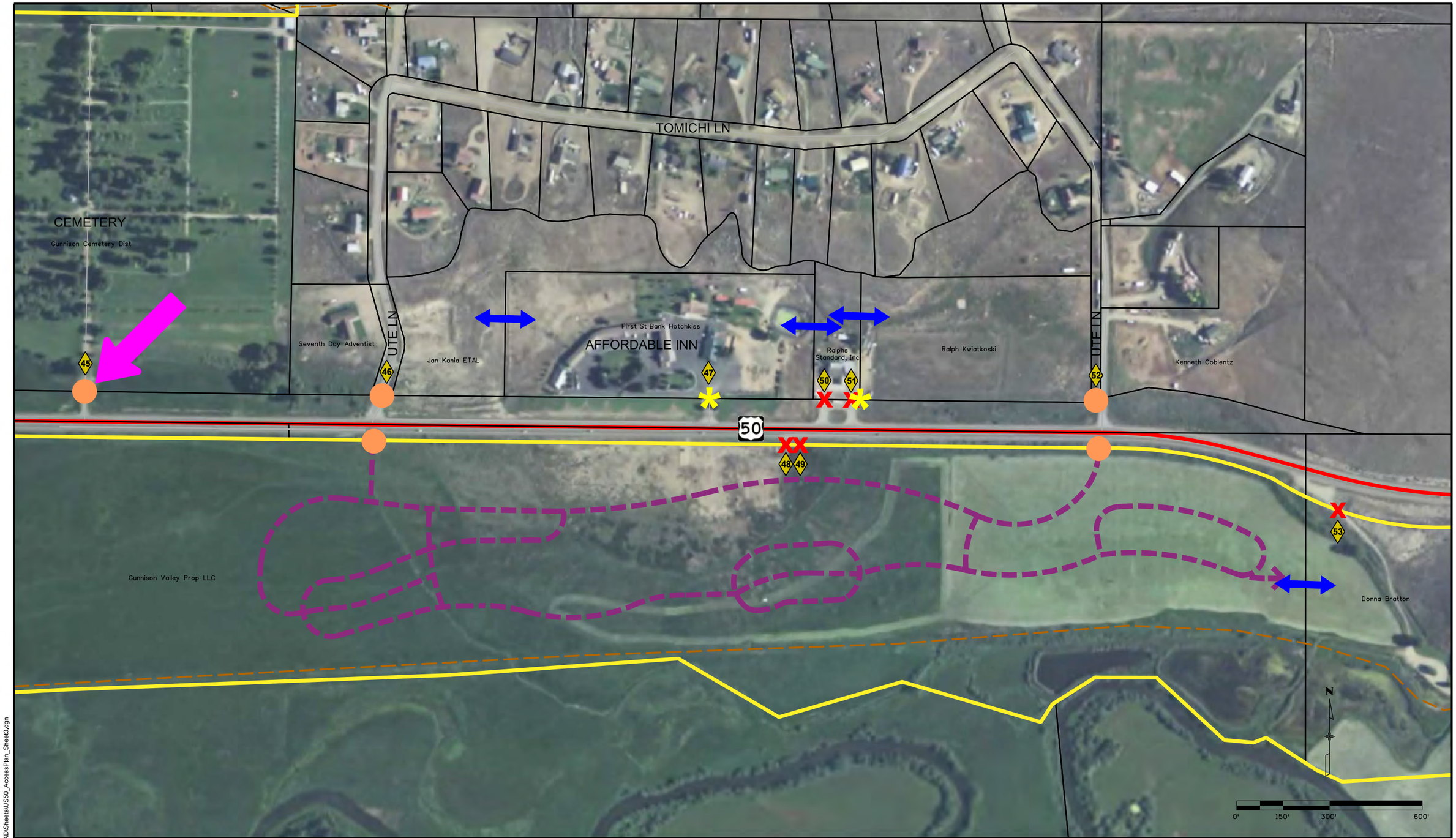
DOT Colorado Department of Transportation

Stolfus & associates INC.

US 50
ACCESS CONTROL PLAN

Print Date:	6/11/2013
File Name:	US50_AccessPlan_Sheet2.dgn
Horiz. Scale:	1:300

sarah 10:59:15 AM P:\12026\CAD\Sheets\US50_AccessPlan_Sheet2.dgn



LEGEND:

- Access Point
- Full Movement
- Right-In
- Right-In, Right-Out
- 3/4 Movement Left-In
- Close Existing Access Point
- Cross Access for Shared Access Point
- City Boundary
- Parcel Line
- Proposed Street Network
- Trail Network

Denotes changes to Access Plan since last open house held April 3, 2013.

Gunnison County COLORADO

DOT Colorado Department of Transportation

Stolfus & associates INC.

US 50
ACCESS CONTROL PLAN

Print Date:	6/11/2013
File Name:	US50_AccessPlan_Sheet3.dgn
Horiz. Scale:	1:300

sarah 10:47:59 AM P:\12026\CAD\Sheets\US50_AccessPlan_Sheet3.dgn

LEGEND:

- Access Point
- Full Movement
- Right-In
- Right-In, Right-Out
- 3/4 Movement Left-In
- Close Existing Access Point
- Cross Access for Shared Access Point
- City Boundary
- Parcel Line
- Proposed Street Network
- Trail Network

Denotes changes to Access Plan since last open house held April 3, 2013.

Gunnison County COLORADO

DOT Colorado Department of Transportation

Stolfus & associates

US 50
ACCESS CONTROL PLAN

Print Date:	6/11/2013
File Name:	US50_AccessPlan_Sheet4.dgn
Horiz. Scale:	1:300

sarah 10:59:59 AM P:\12026\CAD\Sheets\US50_AccessPlan_Sheet4.dgn

sarah 11:30:52 AM P:\12026\CAD\Sheets\US50_AccessPlan_Sheet5.dgn

LEGEND:

- Access Point
- Full Movement
- Right-In
- Right-In, Right-Out
- 3/4 Movement Left-In
- Close Existing Access Point
- Cross Access for Shared Access Point
- City Boundary
- Parcel Line
- Proposed Street Network
- Trail Network

Denotes changes to Access Plan since last open house held April 3, 2013.

US 50
ACCESS CONTROL PLAN

Print Date:	6/11/2013
File Name:	US50_AccessPlan_Sheet5.dgn
Horiz. Scale:	1:300

Next Steps

- Final Open House – August
- Documentation – September/October
- Adoption – November

Questions?