



# STAPLETON CORRIDOR STUDY

## SUMMARY REPORT Stapleton Corridor Access Control Plan

December 2003



**SUMMARY REPORT**  
**Stapleton Corridor Access Control Plan**

**December 2003**

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## **1.0 INTRODUCTION**

In April 2003, El Paso County completed a process to identify a preferred alignment for the segment of Stapleton Road/ Judge Orr Road Corridor located to the east of Meridian Road. The selected alignment was designed to provide an efficient major roadway, while minimizing adverse impacts to the community and environments.

A formally adopted Stapleton Corridor Access Control Plan will provide the necessary framework to protect both the functionality and future capacity of the new roadway. To support development of an access control plan, existing access to private property was analyzed and potential impacts to property access as a result of the proposed alignment were identified. Based on the analysis, conceptual alternatives were explored to ensure that all property adjacent to the proposed roadway, and all property and private driveways maintain reasonable access, be that from Judge Orr Road, U.S. Highway 24, and /or proposed Stapleton Road. The study process was supported by an extensive stakeholder involvement process designed to assure that the input of those most directly impacted by the new facility was solicited and addressed.

### **1.1 Project Purpose and Need**

A formally adopted Stapleton Corridor Access Control Plan will provide a blueprint for safe and efficient operations for all modes of transportation along the recommended alignment for future Stapleton Road/Judge Orr Road. In the revenue constrained environment of El Paso County effective management of proposed facility is essential. By adhering to this Access Control Plan, El Paso County will be able to extend the life of the road, increase safety, reduce traffic congestion, as well as improve the appearance and quality of the built environment. The long-term property value of the surrounding land will be preserved and the economic viability of the abutting development will actually increase. Finally, strictly limited access along this road will be much less damaging to the rural landscape than individual private drives.

### **1.2 Consistency with Local, Regional and State Policy**

The Stapleton Corridor Access Control Plan developed for Stapleton Road/Judge Orr Road is consistent with:

#### **El Paso County's Policy Plan**

- Goal 9.2.1 - Promote land use planning which maximizes transportation efficiency.
- Policy 9.2.3 - Strictly limit direct access onto major transportation corridors in order to preserve their functional capacity.

#### **Pikes Peak Area Council of Governments Regional Transportation Plan**

- Implementation Goal 4.4 - Implement and maintain the planned transportation system in a coordinated and cost-effective manner.
- Implementation Goal Objective - Require advance right-of-way reservation, corridor preservation and dedication for transportation facilities through the local government and land development process and other means.

## **State of Colorado State Highway Access Law**

Access to Public Highways 43-2-147 (1) (a) - The department of transportation and local governments are authorized to regulate vehicular access to or from any public highway under their respective jurisdiction from or to property adjoining a public highway in order to protect the public health, safety, and welfare, to maintain smooth traffic flow, to maintain highway right-of-way drainage, and to protect the functional level of public highways.

### **1.3 Related Projects**

#### **US 24 Access Control Plan**

The Colorado Department of Transportation (CDOT) has completed a draft access control plan for US 24, south of Judge Orr Road. This segment of US 24 is classified as an expressway facility. The US 24 Access Plan implements one-mile full access spacing criteria, as set by CDOT for expressway facilities. The draft Access Plan is to be amended and extended to Elbert Highway. It is anticipated that the access classification east/north of Judge Orr Road will be consistent with the connecting segment, permitting minimum one-mile spacing between full movement accesses. CDOT will begin a public consultation process for the amended US 24 Access Control Plan in early 2004, with approval of the targeted for the spring of 2004.

#### **Woodman Road Access Management Plan**

El Paso County adopted the Woodmen Road Access Management Plan in April of 2003. The adopted plan addresses the segment of Woodmen Road between Powers Boulevard and US 24, and identifies five full-movement accesses. Consistent with expressway classification, permitted access spacing is at one-mile intervals.

### **1.4 Project Process**

This Access Control Plan has been prepared in cooperation with El Paso County and the Colorado Department of Transportation (CDOT). The Plan identifies existing access, as well as proposed modifications to existing access within the defined study area. Study area facilities include: US 24, Eastonville, Meridian, Judge Orr, and Curtis Roads, and other collector facilities associated with these major roadways. It is the goal of the Access Control Plan to limit and consolidate access along the identified major roadways, while promoting a supporting street system incorporating unified access and circulation systems for development. While the regulatory context of this Access Control Plan pertains only to Stapleton Road, the recommended plan has been developed in close coordination with plans for the other facilities, representing an integrated approach.

The goals of access management are accomplished through appropriate application of the following principals:

- Provision of a defined roadway function/ access hierarchy
- Limiting direct access to major roadways based on identified spacing criteria
- Promotion of intersection hierarchy
- Location of signals to favor through movements
- Preservation of the functional areas for intersections and interchanges
- Limiting the number of conflict points
- Separation of conflict areas
- Removing turning vehicles from through-traffic lanes
- Use of non-traversable medians to control left-turn movements
- Provision of adequate local property access through a supporting street and circulation system

## **2.0 EXISTING CONDITIONS**

The area for the proposed Stapleton Road/Judge Orr Road corridor is located in the Falcon/Peyton Planning Area of El Paso County. The size of the immediate area is approximately six square miles. The boundaries encompass the intersection of Stapleton Road and Meridian Road in the northwest corner (extending from the drainage structure east of Meridian Road) to the intersection of Judge Orr Road with Curtis Road in the southeast corner.

Historically, long-range planning efforts have been responsive to the mobility needs associated with this potential for growth in the County. In addressing anticipated future system-level needs, the development of a rational regional network of through arterial routes has been pursued. As part of the regional transportation network, the planned ultimate Stapleton Road/Judge Orr Road facility will provide an east-west route connecting Stapleton Road/Judge Orr Road west to a connection with I-25. To the east, the interconnection of the Stapleton Road/Judge Orr Road corridor with Curtis Road will also provide a linkage between residential concentrations in northeastern El Paso County and employment destinations to the south, including Schriever Air Force Base. The east-west route created through an extension of Stapleton Road to connections with Judge Orr Road and Research Parkway, on the east and west respectively, has been a recurring theme in local and regional plans for over a decade.

Within the Stapleton Road/ Judge Orr Road Corridor travelshed, most major roadways are maintained by El Paso County. Exceptions include state-maintained US 24 and SH 94. Most roads in the planning area are publicly dedicated and maintained, with private or non-County maintained roads concentrated in older subdivisions. No roads in the planning area, including the state facilities, currently have more than two driving lanes.

## **2.1 Land Use & Zoning**

Existing land uses in the project area are typically farmland, open space, or large lot rural residential. A limited amount of retail, commercial, and industrial uses are present in addition to public use land. Growth pressures are rapidly changing the landscape, however, and zoning has been introduced to more effectively assist in implementing planned land use in the area.

Zoning in the project area could be described as transitional, as the undeveloped portions of the project area are subject to development pressures. The northern portion of the project area along Stapleton Road from Meridian Road to Eastonville Road is zoned as a planned Unit Development. The area north of Judge Orr Road, west of Curtis Road, and East of Eastonville Road is zoned as an Agricultural District. The area south of Judge Orr Road and west of Curtis Road is zoned as a Rural Residential District. The area near Meadow Lake Airport south of Judge Orr Road is zoned as a Residential District. Historically, planning and zoning in El Paso County have been used to facilitate development and potential growth. This portion of El Paso County is covered under the Falcon/Peyton Area Plan, which is part of the El Paso County Master Plan.

## **2.2 Existing Access**

US 24 currently provides primary access for many properties, as shown in the Existing Access Locations map, below. The remaining parcels are accessed from Judge Orr Road, or from private roads with connections to either US 24 or Judge Orr Road.

## **2.3 Access Control Criteria**

Both U.S. 24 and Woodmen Road are functionally classified as expressways. Access management criteria for these facilities limit full-movement access to one-mile intervals. The El Paso County arterial criterion of one-half mile spacing will apply to Stapleton Road/ Judge Orr Road. The same criterion applies to Eastonville Road, north of Stapleton Road, Curtis Road, south of Judge Orr Road, and Judge Orr Road, east of U.S. 24. To the south of Stapleton Road, Eastonville Road has been down graded to collector status.



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## Existing Access Locations

## **3.0 ACCESS CONTROL PLAN**

### **3.1 Access Issues**

Every property along the proposed alignment of Stapleton Road has the right to “reasonable” access and egress to Stapleton Road. It is a requirement of this plan to demonstrate how reasonable access can be accommodated.

In this area, many constraints exist affecting access options. Access to private property from the major roads is provided according to State and County guidelines, criteria, and regulations. Applicable State access criteria call for one-mile spacing between the full access intersections on U.S. 24, which is classified as an expressway. A one-half-mile spacing county criterion applies to arterial roadways including Curtis Road, Stapleton Road, and Eastonville Road to the north of Stapleton Road. South of Stapleton Road, Eastonville Road is classified as a collector, and has relatively uncontrolled access. Except in the area immediately adjacent to the proposed Stapleton Road/ US 24 signalized intersection, the new facility would not directly impact any existing accesses. Nonetheless, the new facility presents opportunities to improve access and address current variance from access criteria.

### **3.2 Design Criteria**

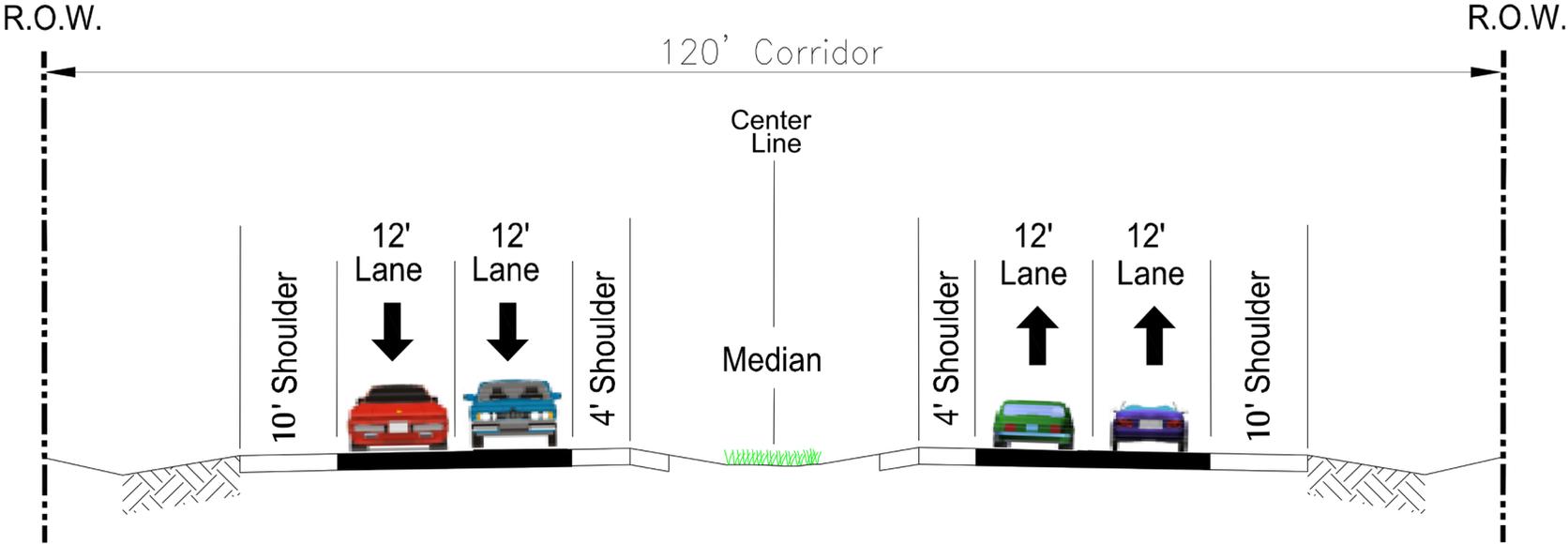
The proposed Stapleton Road/Judge Orr Road facility is to be classified as a major arterial. As a major arterial, access will be allowed with ½ mile spacing. For the Stapleton Road extension, this means that one full movement access point will be allowed between Eastonville and US 24 and one full movement access point between US 24 and Curtis Road.

El Paso County design criteria for this facility classification specify a 120-foot wide right-of way, a 60-mph design speed, and specific roadway cross-section elements. Per the design criteria, the County’s rural cross-section for a major arterial, as shown below, includes:

- A 120-foot wide right-of-way
- Four 12-foot through lanes, two in each direction
- A center, grass/ unpaved median
- Two 4-foot wide inside shoulders
- Two 10-foot wide shared bicycle lane/ outside shoulders
- Design speed 60 mph



# STAPLETON CORRIDOR STUDY



**Stapleton Road Typical Roadway Section**

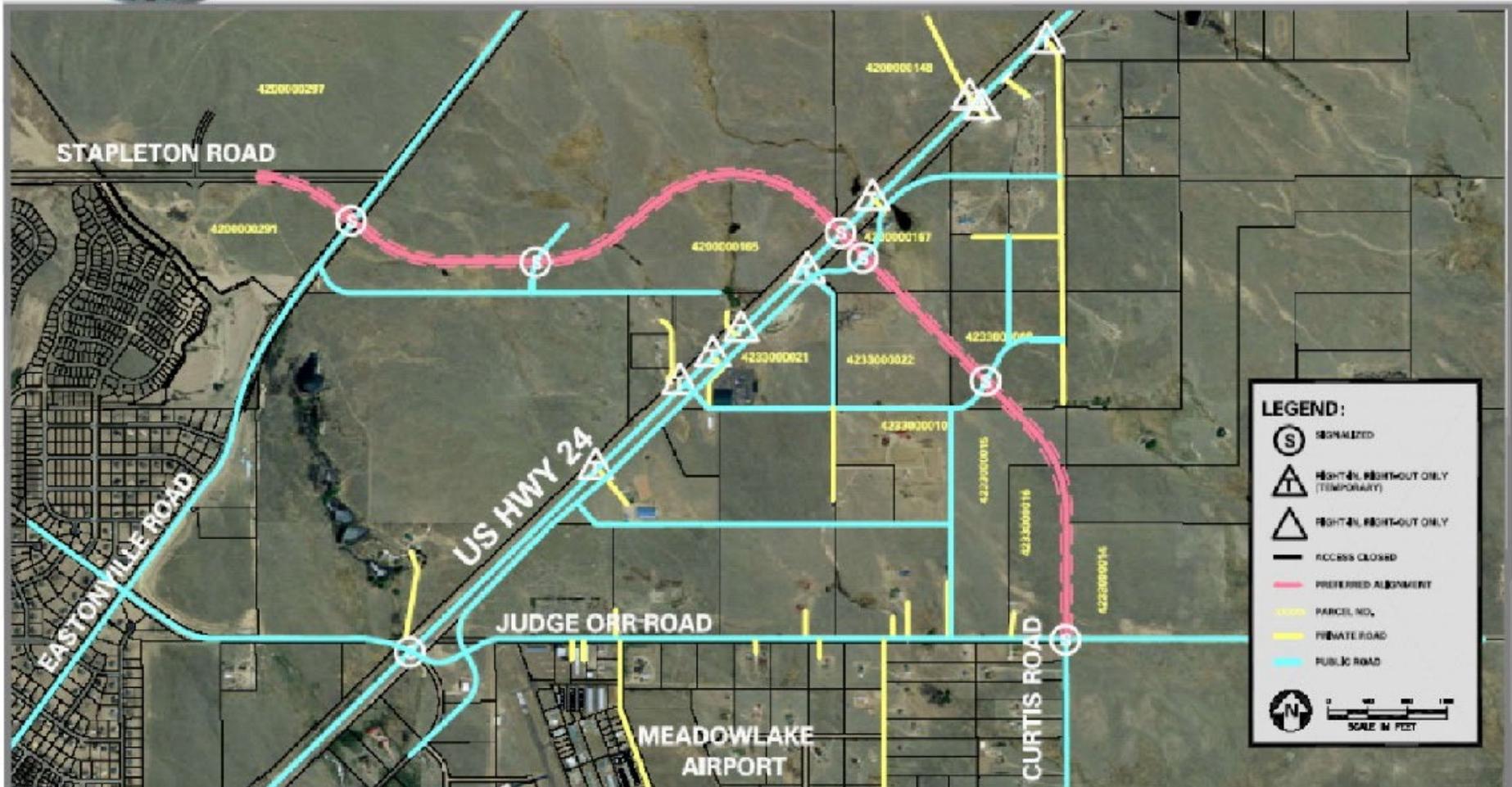
### **3.3 Alternative Access Control Concepts**

The role of US 24 in providing primary access for many properties and was factored into alternatives assessment and access concept development. With the State currently developing an Access Control Plan for US 24, Stapleton Road linkage is seen by the State as a way to provide alternative access to parcels adjacent to U.S. Highway 24. With half-mile spacing for full access directly to Stapleton, and 40-acre parcels to the east of U.S. 24, it is clear that development of a public road network will be needed in the long-term. To address this need, three Access Control Concepts were prepared to address both US 24 and Stapleton Road access issues.

Three preliminary concepts, illustrated below as Concepts A, B and C, were reviewed with affected property owners and the viability of signalization options was evaluated. In each of these drawings, the temporary right-in/right-out symbols shown along US 24 at existing accesses indicate CDOT intentions for the US 24 Access Control Plan as shared with the Stapleton Road Project Team. The US 24 accesses will probably remain as is until US 24 is widened to four lanes. Then, they could become right-in/right-out only until/if alternative access (i.e. via a frontage road) is provided.



# STAPLETON CORRIDOR STUDY



## Access Control Concept A



# STAPLETON CORRIDOR STUDY



## Access Control Concept B



# STAPLETON CORRIDOR STUDY



## Access Control Concept C

### **3.3 Signal Progression**

All local collector elements of the access option packages are conceptual, and are intended only to illustrate a full range of possible approaches to providing access and a local road network. Each alternative involves frontage road elements and employs Stapleton Road "shadow" signals coordinated with U.S. 24 signals at Judge Orr Road/ Blue Gill Road and Stapleton Road. The State Access Code requires that 35% signal progression efficiency be achieved when implementing access spacing at intervals less than specified by the Access Code. On County facilities, 30% progression efficiency is required for "shadow signal" installations. Signal progression efficiency measures the degree to which a motorist is able to pass through downstream signals on green, without having to stop.

Preliminary feasibility of these options was evaluated, assuming "worst-case" development intensity adjacent to US 24/ Stapleton Road. The attached summary of analysis results supports the feasibility of this type of signalization scheme.

## Stapleton/ Judge Orr Corridor Access Control Plan - Signal Progression Analysis

Access Control Concept A			Access Control Concept B			Access Control Concept C		
DESCRIPTION: In Concept A, local access to the east of US 24 is provided via a frontage road extending between Judge Orr Road and Stapleton Road. "Shadow" signals control access to Judge Orr and Stapleton Roads from the frontage road.			DESCRIPTION: In Concept B, local access to the west and east of US 24 is provided via a frontage roads. On the east, the frontage road extends between Judge Orr and Stapleton Roads. "Shadow" signals control access to Judge Orr and Stapleton Roads from the frontage roads. On the west, the frontage road does not extend south to Judge Orr Road.			DESCRIPTION: In Concept C, local access to the west of US 24 is provided via a frontage road extending north and south of Stapleton Road. A "shadow" signal controls access to Stapleton Road from the frontage road. The frontage road does not extend south to Judge Orr Road.		
AM Peak Period			AM Peak Period			AM Peak Period		
Distance to East Frontage Road	Efficiency	Cycle Length	Distance to West/East Frontage Roads	Efficiency	Cycle Length	Distance to West Frontage Road	Efficiency	Cycle Length
300 feet	35%	60	300/300 feet	35%	60	300 feet	35%	60
350 feet	35%	60	350/350 feet	35%	60	400 feet	35%	60
400 feet	35%	60	400/400 feet	35%	60	500 feet	35%	60
480 feet	35%	60	450/450 feet	35%	60	600 feet	34%	60
520 feet	35%	60	500/500 feet	35%	60			
600 feet	34%	60	550/550 feet	35%	60			
700 feet	31%	60	600/600 feet	35%	60			
PM Peak Period			PM Peak Period			PM Peak Period		
Distance to East Frontage Road	Efficiency	Cycle Length	Distance to West/East Frontage Roads	Efficiency	Cycle Length	Distance to West Frontage Road	Efficiency	Cycle Length
300 feet	29%	60	300/300 feet	27%	60	300 feet	35%	60
350 feet	26%	60	350/350 feet	26%	60	400 feet	35%	60
400 feet	26%	60	400/400 feet	25%	60	500 feet	35%	60
480 feet	25%	60	450/450 feet	25%	60	600 feet	34%	60
			500/500 feet	25%	60			
			550/550 feet	25%	60			

### Signal Progression Efficiency Criteria

- 0.00 - 0.12 - "POOR PROGRESSION"
- 0.13 - 0.24 - "FAIR PROGRESSION"
- 0.25 - 0.36 - "GOOD PROGRESSION"
- 0.37 - 1.00 - "GREAT PROGRESSION"

### **3.4 Access Management Plan**

Analysis results and affected property owner input were used to develop a single, refined access control concept for the Stapleton Corridor. The final Stapleton Corridor Access Management Plan, shown below, was adopted by the El Paso County Board of County Commissioners (BOCC) on December 11, 2003. In adopting the Access Management Plan, the BOCC identified the general location for allowable full-movement intersections, at ½-mile intervals along the corridor.

The adopted access control concept includes potential future US 24 frontage roads on both the east and west sides of the highway. The local access concept uses US 24 frontage roads and a local collector network to improve access to private property within the study area. The illustrated local collector/distributor roadway network is conceptual, only, and is shown to indicate one way that the approved full-movement access intersections on future Stapleton Road could support local property access in the study area. In accordance with this concept, future frontage roads would access Stapleton Road directly at "shadow signals", provided that it can be demonstrated that a 30% progression efficiency can be achieved with the shadow signal(s).



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## Preferred Access Control Concept

## **4.0 PUBLIC INVOLVEMENT PROCESS**

The Public Involvement Process used for the Access Control Plan was based on the continuing philosophy that potentially affected property owners should be informed of plans and potential impacts prior to the alternative access control concepts going before the public. With that intent, the study team conducted numerous "one-on-one" meetings with potentially directly impacted property owners to gather input and to get their reactions to the access control alternatives considered at this stage of planning. Finally, all property owners will be mailed follow-up materials showing the selected access control plan, and then individually telephoned to get their comments and questions.

The public involvement process included the following activities:

### **4.1 One-on-one Meetings**

The first set of one-on-one meetings was held only with owners of property with existing access that could potentially be impacted by construction of the new facility. One-on-one contacts necessarily focused on the properties immediately adjacent to the proposed traffic signal at US 24 and Stapleton Road. The project team discussed the existing access situation, as well as anticipated future constraints to access to US 24, Stapleton Road and Eastonville Road (July 2003). These meetings included the 4-Way Ranch owner and his representative, Mike Bonicelli and his representatives, and Sam Leffler (Big R and adjacent property).

A second set of meetings was then held with the directly impacted owners to discuss options to provide alternative access and to solicit input with regard to solutions (July/August 2003). This set of meetings expanded discussion to US 24 access issues.

Finally, the one-on-one meetings were expanded to include property owners within the broader study area. This tier of meetings included representatives of Meadowlake Airport and other properties that were not directly impacted by the proposed Stapleton Road alignment. These meetings involved discussion of the existing access situation and three conceptual plans for providing access to properties within the study area (September 2003). As in the original phase of the project, discussions were held with developers in and near the project area, representatives of the Meadow Lake Airport, and owners of various large holdings in the vicinity of the proposed corridor.

Property owners who were unable to meet with project staff were supplied with maps of existing access and the three conceptual plans for providing access, as well as contact numbers for project team representatives to discuss issues and have questions answered.

### **4.2 Website**

A project website was established in cooperation with El Paso County to keep up to date information always available to the public and agencies. Upon completion of the one-on-one meetings, the website will be updated to include discussion of access issues and solution concepts.

### **4.3 Agency Review/ Coordination**

Throughout the course of the access control phase of the study, Stapleton Road/ Judge Orr Road access control issues were coordinated with emerging access control plans for US 24. Coordination efforts included a coordination kick-off meeting with CDOT access control personnel, attendance at CDOT US 24 Improvement Project progress meetings (2) and a follow-up coordination meeting with CDOT and their US 24 Access Control Plan consultant team.

To provide the El Paso County Board of Commissioners with advisory input to their decision, the existing access situation and three conceptual plans for providing access to properties within the study area were/ will be presented to the Major Thoroughfare Task Force (October & November 2003) and the Planning Commission (November 2003) for review and comment.

### **4.4 Follow up Activities**

All property owners that could be impacted by the final Access Control Plan will receive follow-up describing the recommended Access Control Plan, as well as providing a schedule of review and approval decision points for the Plan (November 2003). The mailing will be followed by telephone phone calls to all potentially impacted property owners who do not responded to the letters. The graphic, below, summarizes the Access Control Plan Public Involvement Process.

**Documented Contacts**  
**Stapleton Road/Judge Orr Road Corridor Study**  
**Vicinity Land Owners/Users and Potentially Affected Land Owners/Users**  
**ACCESS CONTROL PLANNING**

**July 2003**

*Introductory Discussions  
 US 24 Access Requirements*

**August/ September 2003**

*Continuing Discussions*

**October 2003**

*Presentation and Discussion of  
 Conceptual Access Control Plans*

**November/ December 2003**

*Finalize Access Control Plan  
 Agency Review and Approval*

**One-on-one Meetings**

- Robert Gieck
- Sam Leffler (2 meetings)
- Peter Martz – 4-Way Ranch
- Don Smith for Mike Bonicelli

**E-Mail**

- Dan Ferguson

**One-on-one Meetings**

- Bruce Mahncke
- Peter Martz – 4-Way Ranch
- Jeff Hodsdon – 4-Way Ranch

**One-on-one Meetings**

- Mike Bonicelli, Don Smith, Patrick Skinner
- Peter Martz, Tracy Lee - 4-Way Ranch
- Dave Elliott, Lee Leshner, Jack Dhooghe - Meadow Lake Airport
- Cindy Hardin – School District 49
- Chief Trent Harwig – Falcon Fire Department
- Steve Lazor
- Gary Vorhes
- Bruce Mahncke
- Robert Gieck
- Sam Leffler

**Telephone Contacts**

- Meridian Ranch – Doug Woods
- Woodmen Hills – Rusty Green
- Mark Shook – Meadow Lake Airport
- George Tasoulis
- Emanuel Hellman et al
- Dan Ferguson

**E-Mail**

- Dan Ferguson

**Mailing**

- Meridian Ranch
- Woodmen Hills
- Sam Leffler
- Dan Ferguson
- George Tasoulis
- Junior and Flonnie Davis
- Emanuel Hellman et al
- George Fromeke
- Sun Prairie Land LLC

**Agency Review**

- MTTF
- EPC Planning Commission
- Highway Advisory Commission
- BOCC

**Telephone Contacts**

- Sam Leffler
- Dan Ferguson

**E-Mail**

- Dan Ferguson
- Simone Ahern

**Full Mailing**

- Doug Woods - Meridian Ranch
- Rusty Green- Woodmen Hills
- Meadow Lake Airport Association
- Sam Leffler
- Dan Ferguson
- George and Linda Tasoulis
- Steve and Michelle Lazor
- Peter Hagen
- Junior and Flonnie Davis
- Emanuel Hellman et al
- George Fromeke
- Sun Prairie Land LLC
- Tracy Lee
- Mahncke Family Partnership
- Robert Gieck
- Gary Vorhes
- Mike and Sharon Bonicelli
- Cygnet Land LLC
- Distinctive Marine
- Peter Martz

**Meeting Notice Card**

Full Mailing List (200)

# **STAPLETON CORRIDOR STUDY**



**DMJM+HARRIS**

**2950 Professional Place  
Suite 200**

**Colorado Springs, CO 80904**

**Ph: 719-386-8300**