

Envision  *West*

The Entryway

US 24 West Environmental Assessment

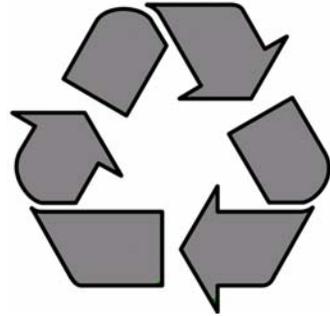
A Unique Outcome From the Application of Context Sensitive Solutions

Dave Watt/Colorado Department of Transportation

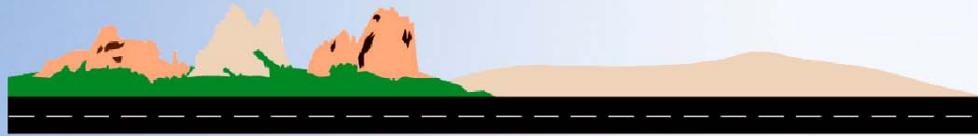
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- Consultant Team: **CH2M HILL**
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Introduction

CSS seeks to understand the context before beginning the engineering.

CSS leads to excellence in process.

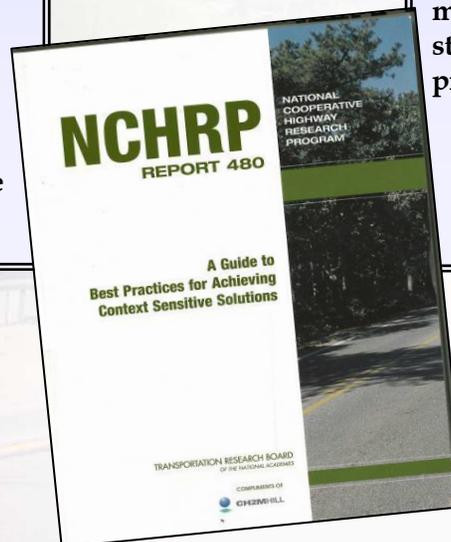
- ❑ Communication among stakeholders
- ❑ Examines multiple alternatives
- ❑ Establishes a multi-disciplinary team
- ❑ Seeks to understand the “context” before beginning engineering
- ❑ Involve a full range of stakeholders
- ❑ Tailors the public process

With CSS, the process is as important as the outcomes because the process involves stakeholders who generate the criteria and the ideas.

It is the process steps that build support and move the stakeholders toward balanced solutions.

The Federal Highway Administration Defines Context Sensitive Solutions as:

CSS is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist. CSS principles include the employment of early, continuous and meaningful involvement of the public and all stakeholders throughout the project development process.



Context is everywhere and a Context Sensitive Solutions (CSS) approach works on any type of public or private project.

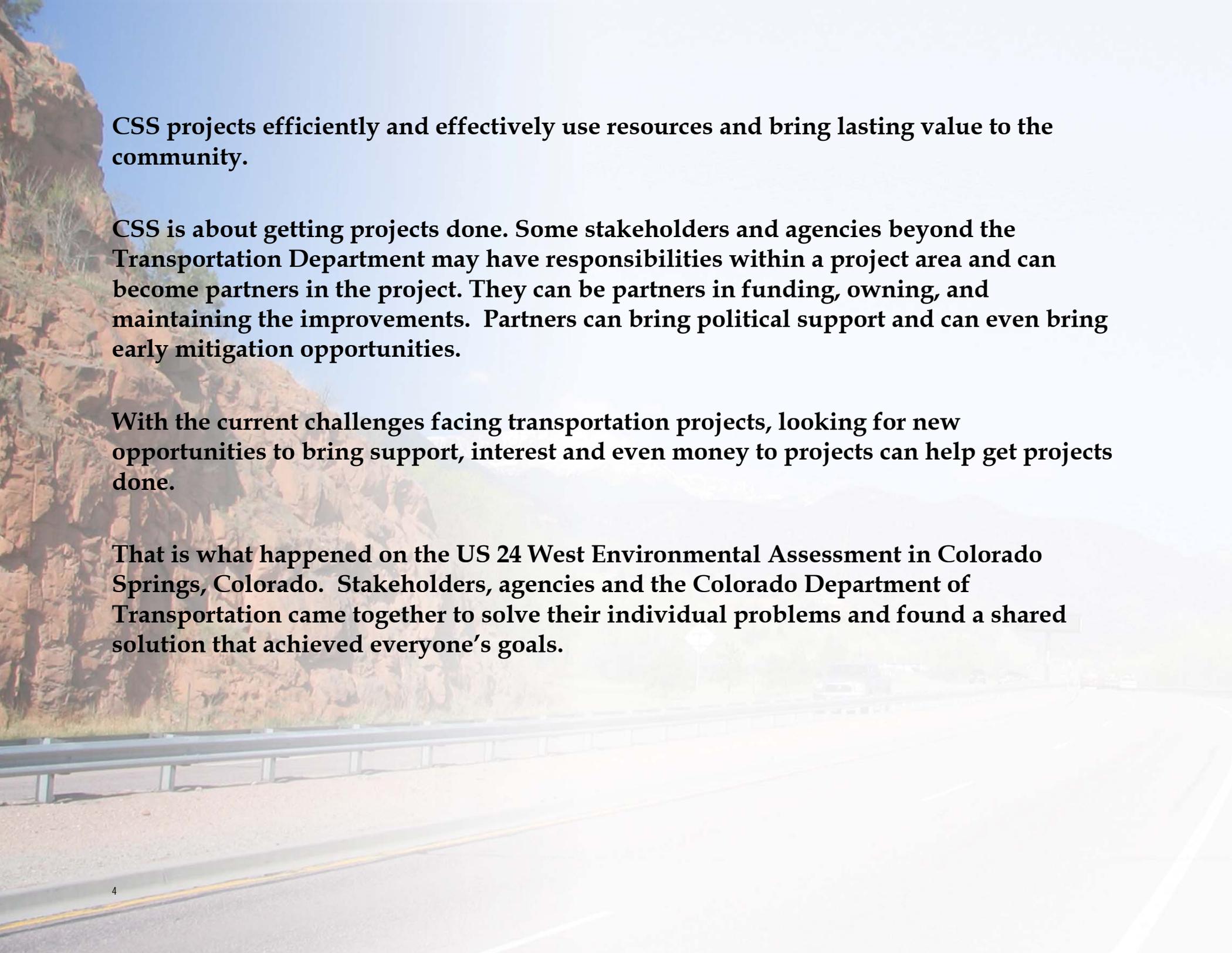
CSS is an approach; it is a process.

CSS projects have a more holistic approach to transportation facility development. CSS requires considering not only the geometric and traffic operations requirements of the design, but the broader purpose and need for the project within the community.

CSS projects do not simply improve safety and mobility; CSS also addresses values that are important to the community such as aesthetics, environmental quality, historic resources and economic development.

It is centered around context. It is built on a structured decision process and it is about people. The process is inclusive of all stakeholders and provides them meaningful opportunities to contribute in defining the project outcomes.

CSS projects always satisfy the purpose and need of the project. They are facilities that do not compromise on mobility. The results of CSS are transportation facilities that fit into the community.



CSS projects efficiently and effectively use resources and bring lasting value to the community.

CSS is about getting projects done. Some stakeholders and agencies beyond the Transportation Department may have responsibilities within a project area and can become partners in the project. They can be partners in funding, owning, and maintaining the improvements. Partners can bring political support and can even bring early mitigation opportunities.

With the current challenges facing transportation projects, looking for new opportunities to bring support, interest and even money to projects can help get projects done.

That is what happened on the US 24 West Environmental Assessment in Colorado Springs, Colorado. Stakeholders, agencies and the Colorado Department of Transportation came together to solve their individual problems and found a shared solution that achieved everyone's goals.



Honor the Past



Solve Problems Together



Preserve Open Space



Improve Mobility



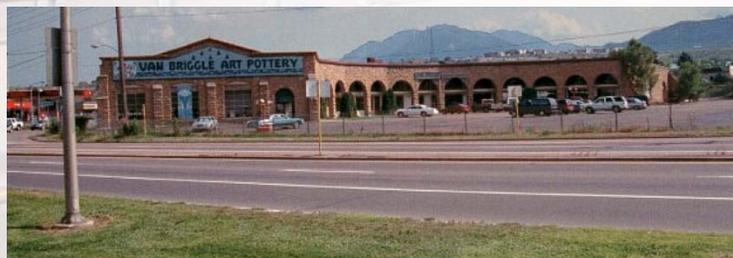
Enhance Water Resources



Support Local Business



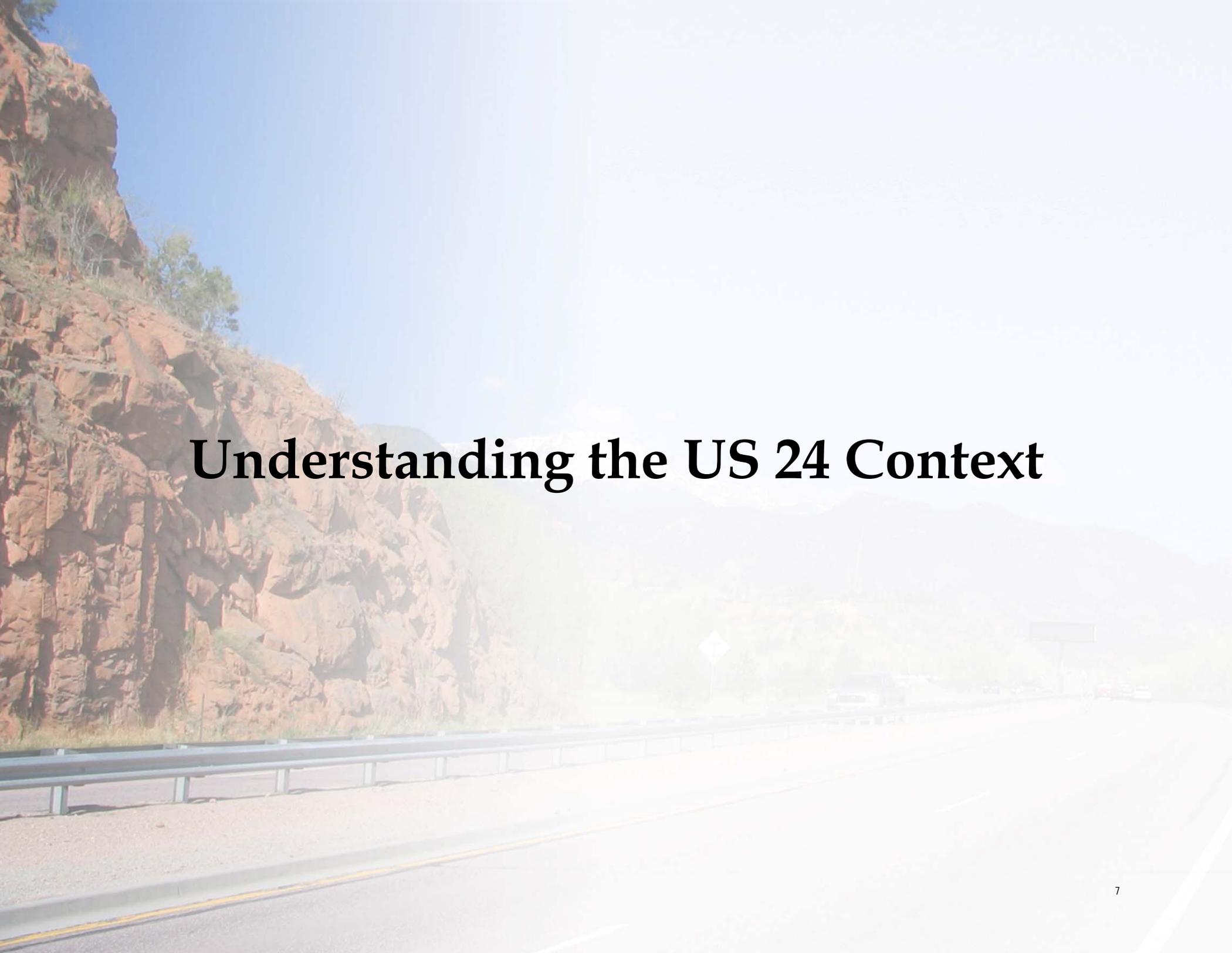
Protect Habitat



Restore Historic Places



Cherish Wildlife



Understanding the US 24 Context

Why Context Makes a Difference

When the elements that contribute to context are understood, the integrated nature of these elements becomes evident.

The integrated systems at work on the west side of Colorado Springs include US 24, local streets, and Fountain Creek.

US 24 is in an urban setting surrounded by mixed land use with neighborhoods, retail, commercial and industrial development side by side. It provides access to regional attractions, such as the Garden of the Gods and the Cliff Dwellings. There is a large infill project being built on the site of a former gold processing mill, Golden Cycle Mill. The corridor is also home to the Midland Terminal Railroad Roundhouse, which is on the National Register of Historic Places. Within the state, US 24 is one of the few mountain access routes, the closest alternative being 50 miles south and the next 60 miles north.

The Fountain Creek 100-year floodplain envelops US 24, hundreds of homes and blocks of businesses.

The area is dotted with parks, it has pieces of trails moving east and west striving to meet in the middle, and recently hundreds of acres of land have been named as open space.

These systems are and must remain integrated; therefore a solution for US 24 must integrate solutions for Fountain Creek, the trails, surrounding land use and the local economy.

Study Corridor



Gateway to the Mountains



Cliff Dwellings



Garden of the Gods



Manitou Springs



Red Rock
Canyon
Open Space

Trails and Parks



Historic Old Colorado City



Fountain Creek



Midland Roundhouse



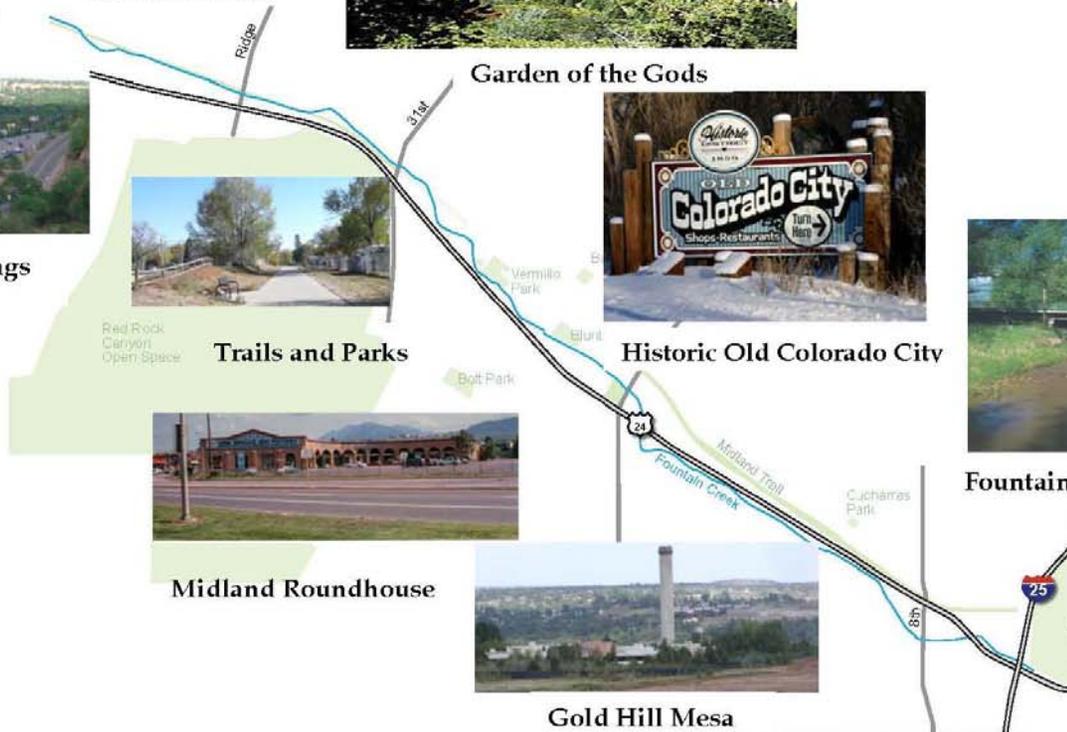
Gold Hill Mesa



America the Beautiful Park



Local Businesses





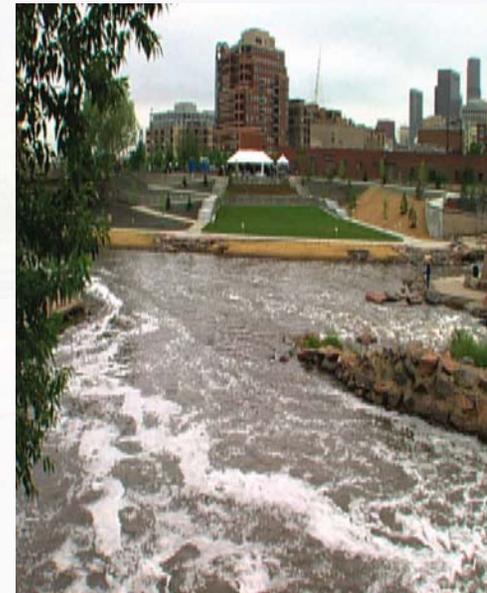
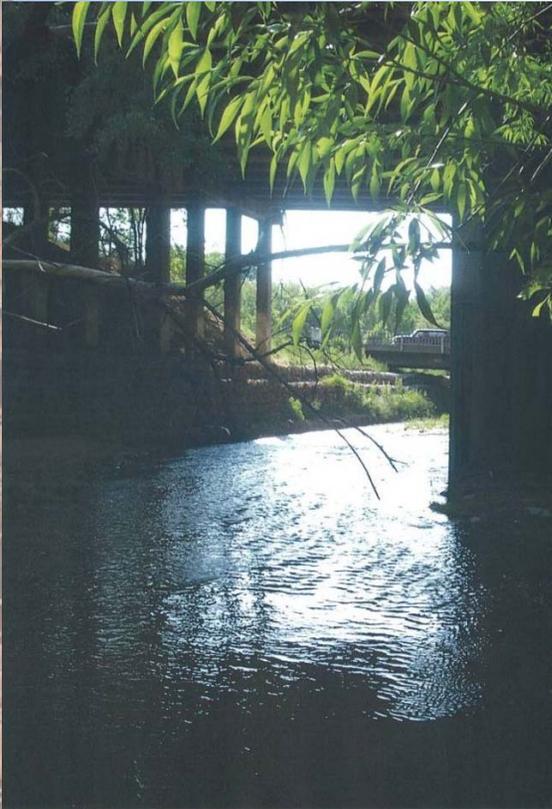
More about the US 24 Context

US 24 is surrounded by mountains and red rocks so amazing they were held sacred by Native Americans.

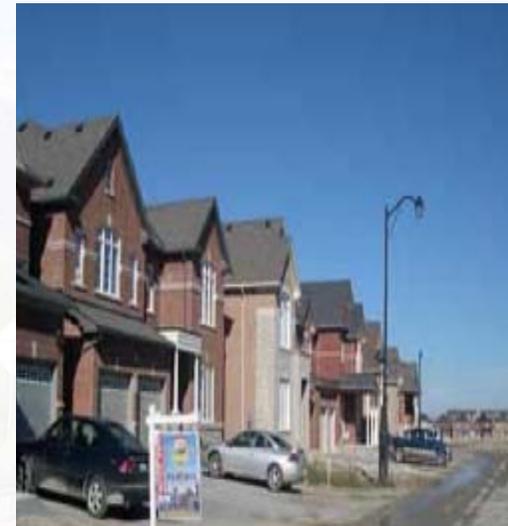


Fountain Creek is a touch of nature within a busy urban area. It is a haven for birds and a quiet cool place for visitors.

The 100-year floodplain of Fountain Creek envelops US 24, homes and businesses.



Gold Hill Mesa is an infill project, building hundreds of new homes and bringing new commercial sites to the area. Built on the site of a gold processing mill, this development will bring new families and new businesses to the Westside neighborhood.



The US 24 corridor is, and has always been, a transportation corridor. It was first a trail along the creek, then the wagon trail up to the mines, then the railroad corridor between the mines and the gold processing mills.

It is now the transportation corridor to and from local attractions, regional gaming resorts, ski areas, growing mountain communities and downtown Colorado Springs.



The area is a tourist corridor with attractions such as Garden of the Gods, and a historic motor court area, with cabins and motels right out of the pictures of our childhood family vacations.



Historic Photos: Old Colorado City Historical Society

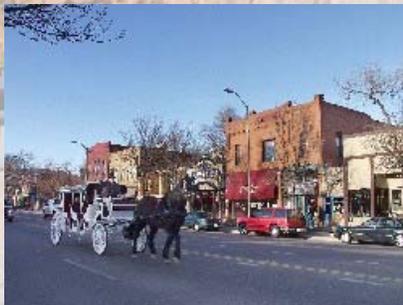


The Westside is rich in history, built around Colorado City, the working man's city.

Colorado City was the home of bars and brothels, while Colorado Springs was the residence of gentlemen and ladies. In fact, Limit Street, near the east end of the corridor, was the limit beyond which liquor was not sold.

The Westside celebrates its history in Old Colorado City, a historic district filled with unusual shops and wonderful restaurants.

Historic Photos: Old Colorado City Historical Society



Problems and Opportunities

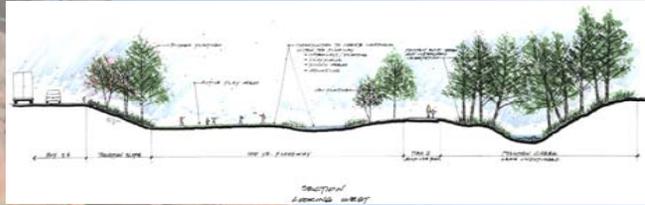


Each element is a piece in the systems at work. So each piece affects another and each solution offers opportunities for other system improvements.

The Problem	The Roadway Solution
US 24 congestion	Add lanes and improve interchanges and intersections.
Fountain Creek flooding	Raise US 24, US 24 bridges, and cross street bridges to accommodate the 100-year floodwaters.
Fountain Creek water quality	Build water quality ponds to capture the US 24 runoff.
Mobility for non-motorized users	Complete the Midland Trail from 21st Street west to 31st Street. Grade separate US 24 at Ridge Road, with access into the open space to provide safe bike and pedestrian access.

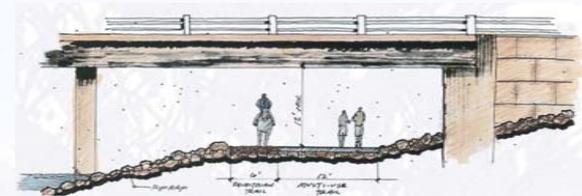
Thinking and planning the improvements as integrated systems led to conversations with agencies responsible for resources.

The Opportunities



Land acquired for widening US 24 can be used for channel improvements between the bridges, thus containing a 100-year flood, and removing homes and businesses from the floodplain.

Land acquired for the widening of US 24 will also make room for completing the trail from east to west. The trail will follow the creek and because the bridges are being raised to address the flooding, street crossings can be eliminated.



With the land acquired for the widening of US 24, some ponds can be oversized to address both treatment of runoff from the roadway and the surrounding areas. These areas will create a greenway along US 24, potentially a park owned by the City.

Using land acquired for widening US 24 provides land for a potential park-n-ride facility that will connect express and local bus service with trails. The park-n-ride facility could also provide a shared parking location for weekend use of the open space.



Partnerships

The Colorado Department of Transportation led the efforts to bring public and private partners to the table.

To remove US 24 from the 100-year floodplain, planning partners included the Army Corps of Engineers, FHWA and FEMA. Working in the floodplain brought Colorado Springs Stormwater Enterprise and the Fountain Creek Watershed Task Force to the table.

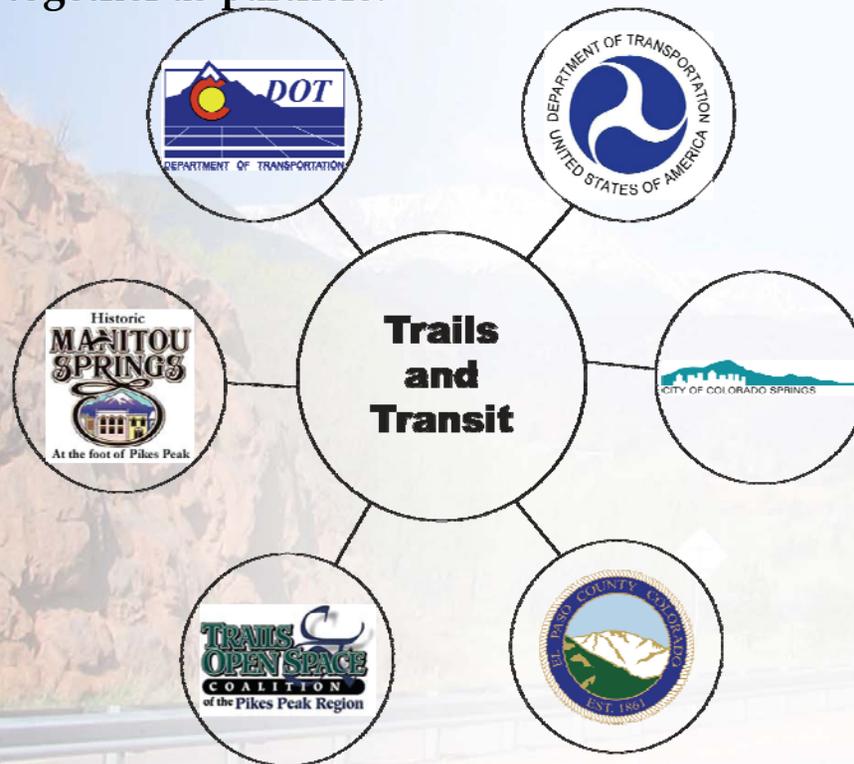


Fountain Creek has been identified as an impaired stream for water quality by the Water Quality Control Division of the Colorado Department of Public Health and Environment. Improving the water quality is a joint effort and brings the Colorado Springs Stormwater Enterprise to the table. In addition, Trout Unlimited has expressed interest in helping to restore the creek for habitat.



Removing US 24 from the floodplain requires raising the bridges. This makes connecting the trail possible without at-grade crossings. Potential partners in completing the trail include the cities of Colorado Springs and Manitou Springs, El Paso County, and the City of Colorado Springs' Trails and Opens Space and Parks and Recreation staff.

Building a park-n-ride facility on the corridor brought the Federal Transit Authority, Mountain Metro (the Colorado Springs Transit Authority), and the Colorado Department of Transportation together as partners.



CSS led us to this approach. It built the relationships and trust needed to explore these partnerships.



The First Successful Partnership

The Fountain Creek Restoration At Gold Hill Mesa



Bio-Swales



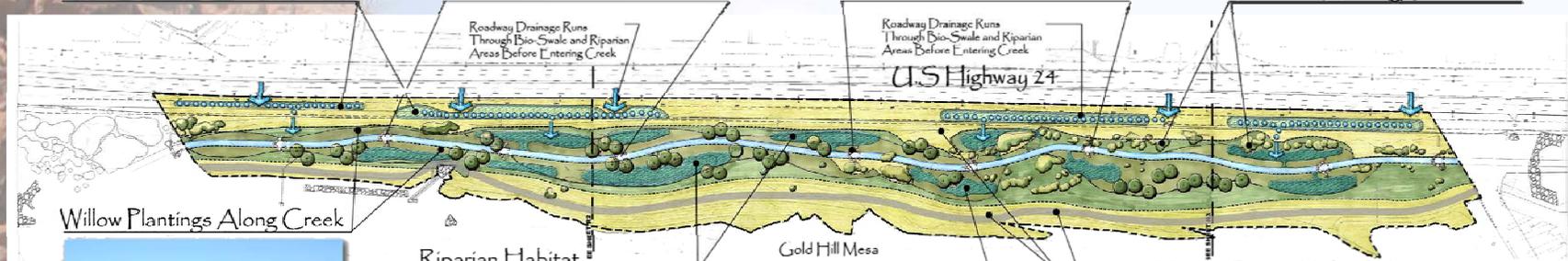
Grade Control Structures



Grade Control Structures



Preserve Existing Trees



Willow Plantings Along Creek

Riparian Habitat

Gold Hill Mesa
Aquatic Plantings

Native Grass/Upland Vegetation

Gravel Maintenance Road



Restoration Plan





A public-private partnership was formed in 2007 to construct improvements on a 3000-foot segment of Fountain Creek adjacent to US 24.

Representatives from the Stormwater Enterprise, Gold Hill Mesa, and the Colorado Department of Transportation developed this partnership to design and construct the Fountain Creek Restoration at Gold Hill Mesa project. The partnership has coordinated with the Army Corps of Engineers and Trout Unlimited. The project has the support of the Colorado Department of Public Health because it addresses environmental issues associated with the Gold Hill Mesa site.

This partnership has developed a project to address the following:

- **Reduce flooding, erosion and sedimentation**
- **Improve water quality and address environmental issues**
- **Control pollutants and contaminants**
- **Create wetlands and a stable riparian environment**
- **Allow for future US 24 improvements and future Gold Hill Mesa access**
- **Minimize impacts to previously-constructed stormwater improvements**
- **Create a demonstration project to showcase stormwater quality best management practices**
- **Promote environmental stewardship through community “ownership” of the creek**

The project is unique in that improvements required to stabilize, improve and enhance this segment also reduce the potential for pollutants and contaminants to be released into Fountain Creek.

A key element of the partnership is the sharing of costs to implement the project.

The Lasting Value of CSS

The US 24 project has proven the wisdom of the CSS approach. This is an efficient and effective way to use public resources. There will be cost savings for all of the responsible agencies with a multiplied benefit to the community.

So by using a CSS approach, a systems approach, solutions were found with a much larger range of benefits for stakeholders. In creating this atmosphere, partnerships will implement the solutions. Dollars have been found from non-traditional highway sources. Interest has been found in the long-term ownership and maintenance of land that might otherwise become excess right-of-way, and the solutions have the support of many agencies with responsibilities in this corridor.

Without question the US 24 project will bring lasting value to this community and will exceed the expectations of the designers and stakeholders. A cost effective solution has been created that uses resources effectively. CSS does cost less.

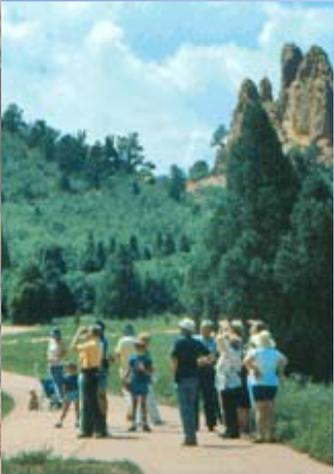
To accomplish partnerships like this planners and engineers have to THINK BIG, bigger than they are used to.

Move from thinking of roadway solutions to thinking about systems solutions, solutions that are sensitive to the context.

This is the true promise of Context Sensitive Solutions.

The United Kingdom's Royal Academy of Engineering suggests the following Best Practices:

1. Look beyond your own locality and the immediate future.
2. Innovate and be creative.
3. Seek a balanced solution.
4. Seek engagement from all stakeholders.
5. Make sure you know the needs and wants.
6. Plan and manage effectively.
7. Give sustainability the benefit of any doubt.
8. If polluters must pollute, then they must pay as well.
9. Adopt a holistic cradle-to-grave approach.
10. Do things right, having decided on the right thing to do.
11. Beware of cost reductions that masquerade as VE.
12. Practice what you preach.



The vision for solutions developed from a CSS process:

- ❑ The project satisfies the purpose and need
- ❑ The project is a safe facility
- ❑ The project is in harmony with the community
- ❑ The project exceeds the expectations of designers and stakeholders
- ❑ The project involves efficient and effective use of resources
- ❑ The project is seen as having added lasting value to the community

NCHRP Report #480 A Guide to Best Practices for Achieving Context Sensitive Solutions

