



Engineering Division

El Paso County Public Services Department
January 25, 2012

André P. Brackin, County Engineer

Reclamite Pilot Study

- Application of the product was done by Pavement Restoration, Inc.
- Sweeping of the sand was done by El Paso County crews under the direction of **John McMinn**.
- Cost of \$1.00 per square yard
- Total cost for pilot study was \$17,207

Project Management: **Carl McClellan** and **John Clack**

Road	From	To	Lane
	Constitution		Northbound
Leoti	Gordonsville		Northbound
Leoti	Piros	Lisa	Southbound
Piros	Constitution		Southbound
Leoti		Gordonsville	Eastbound
Hathaway	Galley		Southbound



Chipita Park Rd

The Chipita Park Road intersection improvement project was constructed during August and September 2011. This project eliminated a dangerous Y intersection and improved both sight distance and safety. This project also provides a safe path for elementary school children, keeping them off the edge of the traveled roadway.

- Project amount: \$36,345.54
 - Project inspector: **Ed Braun** and **Lee Zehnder**
 - Testing: **Paul Wiggs, Danny Swinger**
- EPC foreman: **Dennis Sack**, Superintendent: **Steve Barden**



Electronic Drive

The completed project provides an important and much improved access from Akers Drive to southbound Marksheffel Road.

- **Dennis Sack** was the foreman on the project
- Work was performed by the **Drainage Crews** and **Grader Crews**
- **Rich Payne** and the **Surveying crew** provided grade control and surveying
- **Ed Braun** and **Paul Wiggs** provided inspection and testing services
- Grading and drainage work was started on 9/12/2011 and paving was completed on 10/4/2011
- Shouldering was completed by **Highway crews** on 10/20/2011
- **Lee Zehnder** was the inspector during cement stabilization and paving
- Schmidt Construction



B-Street Pedestrian Bridge

The B-Street pedestrian bridge was built as part of the railroad expansion at Fort Carson. The purpose is to provide safe passage of pedestrians (mostly elementary school children) across B-Street and the railroad tracks directly to the west; also providing added security for the Fort Carson railroad. This project also provided for the removal of the old pedestrian signal which is no longer needed. The project was started in February 2011 and was completed in January 2012. Sampson construction built the project under the supervision of the Army Corps of Engineers.

- **Don Galay** was the Right-of-Way inspector on-site, mostly responsible for proper MHT implementation and maintenance, along with issuing the permits.
- **Carl McClellan** and **Ed Braun** reviewed the plans and traffic control plans.
- **Kenney Crumb** was involved with inspections and the pedestrian signal work coordination.
- **EPC Signs and Signal Shop** was present the day the bridge girders were set in case the signal had to be taken down during the girder placement.



2011 Paving:

In addition to paving these roads, they were patched, shouldered, and street markings installed as needed. Intersection Safety improvements were also made near Ute Pass Elementary School.

Contractor	Schmidt Construction
Traffic Control	EPC Sheriff's Office and Work Zone Traffic Control
Materials Testing	Paul Wiggs; Lee Zehnder; Danny Swinger
Additional Assistance	Ashley Braun; Jake Wilson; Kenney Crumb
Preliminary & Final Paving List	John Clack, Carl McClellan, Ed Braun, Brad Hartman

PPRTA Comparison 2010 and 2011

	<u>2011</u>	<u>2010</u>
Revised Contract Amount:	\$3,334,796	\$3,121,679
Centerline Miles Paved:	33	27



2011 Chip Seal

About 6,487 tons of chips were delivered to EPC by Rocky Mountain Materials

About 175,000 gallons of CRS2P was used

Fog seal was applied after the chip seal

2010 and 2011 Comparison:

	2010	2011
Total Miles:	36.6	31.2
Total Cost:	\$606,907	\$550,255

Bruce Davis was the foreman on the project

Work performed by **Truck String** crew

Traffic control was done by **EPC Signs and Signals** crew

Testing and inspection was done by **Danny Swinger** and **Paul Wiggs**



Engineering Criteria Manual, Revision 4

The fourth revision was approved by the Board of County Commissions on August 11, 2011.

- Changes were reviewed by groups that included Public Services Department and Development Services Department individuals.
- The changes were presented to the Housing and Building Association and discussed with a subcommittee.
- Wendy Mackey** is making the changes electronically and will post the changes on the County's website when they are complete.



PERMITS

Work in the Right-of Way Permits:

	<u>Number of permits</u>	<u>Total Dollars</u>
Telecommunication Permits:	79	\$120,851.23
Non-Telecommunication Permits:	356	\$267,889.42
Total:	435	\$388,740.65

Special Districts (not required to pay)		<u>\$110,363.44</u>
Total Collected:		\$278,377.21

Special Transport Permits:

<u>Number of permits</u>	<u>Total Dollars</u>
43	\$18,618.00

2011 Concrete

- AA Construction Company
- 107 projects.
- The work stated on May 15th and was completed by October 6th.
- The awarded amount for 2011 was \$592,101.05.

Comparing PPRTA work done in 2010 and 2011 is as follows:

Total Spent on concrete maintenance:

<u>2010</u>	<u>2011</u>
\$718,501.05	\$566,069.03

Curb & Gutter---14,050 LF

Sidewalk-----12,504 LF

Pedestrian Ramps---55 Each

Cross Pans-----19 Each

Contractor, Ideal Concrete Inc.

Curb & Gutter----8971 LF

Sidewalk-----9086 LF

Pedestrian Ramps--47 Each

Pans-----11 Each

Contractor, AA Construction
Company

Project Inspector, **Andy Kloos**

Project Materials Tester, **Andy Kloos**



Stapleton Road Improvements



Project purpose:

- Extend Stapleton from Bandanero to SH24

Project benefit:

- New east/west corridor from SH24 to Eastonville Road
- Improved drainage infrastructure

Hurdles / Issues:

- High ground water caused difficult construction conditions
- Coordination with metro district

Staff Involvement:

- **Mike Cartmell**, Project Engineer
- **Kenney Crumb**, Construction Management and Inspections
- **Paul Wiggs**, Material Testing
- **Leigh Simpson**, Resource Management Supervisor
- **Brenda Gordon**, Procurement & Contracts

Meridian (North) Road Improvements



Project purpose:

- Reconstruct SB lanes of Meridian from Stapleton to Woodmen

Project benefit:

- Improved capacity and traffic operations by adding a left turn lane at Woodmen
- Signalized Londonderry intersection and improved corridor drainage

Hurdles / Issues:

- Property acquisition and traffic control

Staff Involvement:

- **Mike Cartmell**, Project Engineer
- **Paul Wiggs**, Construction Management, Inspections and Material Testing
- **Leigh Simpson**, Resource Management Supervisor
- **Brenda Gordon**, Procurement & Contracts
- Signal coordination with **Traffic Operations**

Marksheffel Road Improvements



Project purpose:

- Capacity Improvement – widen to four lanes between Colorado Tech Drive and North Carefree, new signals at Constitution intersection

Project Benefit/Gain:

- Improved capacity and traffic flow, bike lanes, sidewalks, improved drainage
- Extensive property acquisition and utility relocation required, detours and traffic shifts during construction, maintaining access to existing businesses

Staff Involvement:

- **Dennis Barron**, Project Engineer/Project Manager
- Signal coordination with **Traffic Operations**
- **Leigh Simpson**, Resource Management Supervisor
- **Brenda Gordon**, Procurement & Contracts

Hodgen Road Safety Improvements



Project Purpose:

- Upgrade the roadway to Arterial standards

Project Benefit:

- Safety – adequate site distance, intersection improvements, wide shoulders, reduced drifting snow, adequate drainage

Hurdles / Issues:

- Utility relocation coordination; Internal residence access and through traffic during the road closure

Staff Involvement:

- **Alissa Werre**, Project Engineer/Project Manager
- Detour maintenance and haul of asphalt millings by **Highway Operations**
- **Leigh Simpson**, Resource Management Supervisor;
- **Brenda Gordon**, Procurement & Contracts

Fountain Mesa Ditch Improvements



Project purpose:

- Replace deteriorating asphalt lining which is costly and time consuming to maintain
- Restore hydraulic performance of the channel and improve aesthetics

Design considerations:

- X-section design balances hydraulics and roadside safety and steep and varying backslopes to fit within a limited space
- Selected a channel lining to withstand high velocities, reduce maintenance, and meet available budget.
- Coordinated closely with Highway Division during design, material procurement, and construction which resulted in an efficient and effective overall project.

Staff Involvement:

- **Engineering, Urban Drainage crews, Rural Drainage crew, Bridge crew, Signs and Signals Shop , Truck String, Asphalt crew, Urban Graders, Inspections and Survey, Fleet, Resource Management/Contracting**

Stormwater Quality/MS4 Accomplishments

Active Permits: 85 Inspections: 358

PSD: 30

PSD: 79

DSD: 55

DSD: 279

Facility Run off Control Plans

- Developed for 13 EPC facilities (Transportation, Parks, Sheriff's Office)
- Training provided to all staff at all facilities
- Facilities inspected and updates made to plans

Stormwater Quality Coordinator: **John Chavez**



Erosion at Sand Creek (private development)