



June 28, 2018

Mr. Stuart Coles  
JSI Construction Group LLC  
1710 29th Street, Suite 1068  
Boulder, Colorado 80301

**RE: *Palmer Solar Project, Birdsall Road and Old Pueblo Road  
El Paso County, Colorado  
Access Routes Road Condition Assessment***

Dear Mr. Coles:

The purpose of this letter is to document the results of a road condition assessment completed by Kimley-Horn relative to the proposed Palmer Solar project north of Birdsall Road and east of Old Pueblo Road in El Paso County, Colorado. The solar field project site is approximately 525 acres, separated into two areas, located south of the City of Fountain. A vicinity map illustrating the location of the Palmer Solar project is shown in attached **Figure 1**.

## **Roadway Assessment**

Kimley-Horn conducted a field assessment of existing public road facilities that are considered as the primary truck access routes to be utilized during construction of the Palmer Solar project. There are two primary routes connecting Interstate 25 to the project location. These two routes connect specifically to the east and west sides of the project area and are recognized as the eastern and western access routes, respectively.

The eastern access route includes public highways and streets from I-25 through the City of Fountain before connecting to private roads at the intersection of Squirrel Creek Road and the landfill access road east of Fountain. Specific routing on public roads begins at the Mesa Ridge Parkway Interchange at I-25 MM 134, proceeds east on Mesa Ridge Parkway, also known as CO-16, to a point where CO-16 becomes CO-21, Powers Boulevard. At this change in designation, Fountain Mesa Parkway diverges to the east as an El Paso County roadway. The access route continues east to Link Road, south to Squirrel Creek Road, and east to the landfill access road. The route then follows a gravel road south to the east end of the Palmer Solar project area. This gravel road was not accessible to review. It is currently used to access a Colorado Springs Utilities facility and public access is prohibited.

The western access route connects I-25 to the western edge of the Palmer Solar project using public highways and roads beginning at the Old Pueblo Road Interchange at MM 122. It then follows Old Pueblo Road east and north to Birdsall Road, where it heads east to the Palmer Solar project site.

A field review and video log of the accessible portion of these two access routes was completed on June 8, 2018. The private gravel road connecting from the landfill access road south to the Palmer Solar site was not included in this review.

The video logs are provided digitally to supplement this report as visual evidence of the conditions encountered. Each video includes an inset dynamic map providing location information and other data including distance traveled, speed, and elevation. The proposed access routes and video log references are shown in **Figure 2**.

## Assessment Results

The following information is organized relative to the specific video segments provided separately. Please refer to Figure 2 for the locations associated with the video logs. Please refer to the video files delivered electronically as MP4 compressed files.

The assessment also includes information obtained through [bridgereports.com](http://bridgereports.com) for condition assessments of the major bridge structures associated with the proposed access routes. No engineering analysis was completed and no opinion is provided on these assessments. They are provided for information only.

## Eastern Access Route

### Video Log 1

**Primary Route Designation(s):** Mesa Ridge Parkway also identified as CO Highway 16

**Direction Traveled:** Eastbound

**Beginning Point:** I-25 Interchange MM 132 (Video MM 0.00)

**End Point:** Fountain Mesa Road (Video MM 1.85)

**Distance:** 1.85 Miles

This segment generally consists of a divided roadway section with four travel lanes, shoulders, and turn lanes. The speed limit is 55 mph.

Video MM	Route	Road surface	Observed Condition	Other
0			I-25 Mainline Bridge	See Bridge Reports
0 to 1.20	Mesa Ridge Pkwy (CO-16)	Concrete	Good	Striping in good condition
0.08			Fountain Creek Bridge	See Bridge Reports
0.25			East and West Bound Bridges over Crews Gulch	See Bridge Reports
0.82			East and West Bound Bridges over US 85, BNSF RR, UPRR	See Bridge Reports
1.02			Overflow Channel Bridge (Culvert)	See Bridge Reports
1.03			Local drainage bridge (Culvert)	See Bridge Reports
1.20 to 1.85	Mesa Ridge Pkwy(CO-16)	Asphalt	Generally good, some areas of observed pavement stress as noted below	Striping in good condition, potential need for crack seal surface preservation treatment
1.36			Inside lane pumping	
1.62			outside lane pumping	
1.65 1.71 1.77			significant surface cracking	
1.85			“pushing” of surface approaching signal at Fountain Mesa Parkway	No signal ahead warning, no advised speed or limit reduction approaching intersection

**Video Log 2**

**Primary Route Designation(s):** Mesa Ridge Parkway (CO-16), Mesa Ridge Parkway and Marksheffel Road (El Paso County),  
**Direction Traveled:** East and Southbound  
**Beginning Point:** Fountain Mesa Road  
**End Point:** Link Road  
**Distance:** 3.68 Miles

This segment of the haul route includes a 4-lane divided asphalt roadway on the CDOT section (CO-16) of Mesa Ridge Parkway. The El Paso County segment of the parkway is a two-lane asphalt roadway with two to four-foot shoulders and turn lanes at significant intersections. Marksheffel Road is an El Paso County three lane asphalt roadway with one travel lane in each direction and a very wide (~18 foot) striped flush median and two-foot shoulders.

Video MM	Route	Road surface	Observed Condition	Other
0 to 1.23	Mesa Ridge Parkway (CO-16)	Asphalt	Generally good, some areas of observed pavement stress as noted below	
0.03 to 0.07			Surface cracks through intersection	
0.21			Surface cracks approaching intersection	
0.23			Overhead – Span Wire signal	
0.28			Significant crack at pavement join, newer pavement	
0.44			Surface grind	
0.68			Surface cracks longitudinal at dashed lane line	
0.80			Surface grinds	
1.01-1.05			Surface grinds	
1.06			Significant crack at pavement join, older pavement	

Video MM	Route	Road surface	Observed Condition	Other
1.23 to 2.55	Mesa Ridge Parkway (El Paso County)	Asphalt	Almost all newly built east of Powers intersection	
1.23			Surface cracks through intersection	
2.32			Bridge	Recent Construction, no condition assessment available
2.55	Intersection	Asphalt	Good surface	Stop controlled for eastbound Mesa Ridge Parkway, no acceleration lane on Marksheffel
2.55 to 3.68	Marksheffel Road (El Paso County)		Generally good surface	
3.34			Longitudinal cracks at curve entrance and pavement join	
3.39 to 3.43			Some pavement pushing on curve, rough ride	
3.46			Shoulders taper to 0'	
3.66			Overhead electric	

**Video Log 3**

**Primary Route Designation(s): Link Road, Squirrel Creek Road (City of Fountain)**

**Direction Traveled: South and Eastbound**

**Beginning Point: C&S Road**

**End Point: Locked Gate on gravel road near intersection with landfill access road**

**Distance: 3.94 Miles**

Video MM	Route	Road surface	Observed Condition	Other
1.97	Intersection	Asphalt	Poor surface, no signal, Northbound Link Road is stop controlled	City of Fountain scheduled to improve intersection including a traffic signal spring/summer of 2019
1.97 to 2.96	Link Road	Asphalt	Poor, especially southbound No shoulders Speed Limit 40MPH	City of Fountain is rebuilding this section fall of 2018 with new pavement section, 8-foot shoulders, and sight distance improvements
2.45			Bridge over Jimmy Camp Creek in good condition, to be resurfaced with Fountain project	See Bridge Reports
2.58			Overhead Electric	
2.69			Overhead Electric	
2.96	Intersection	Asphalt	Poor surface, no signal, two-way stop controlled (E/W)	Narrow sections, limited room for turning trucks, City of Fountain scheduled to improve intersection spring/summer of 2019

Video MM	Route	Road surface	Observed Condition	Other
2.96 to 5.42	Squirrel Creek Road	Asphalt	Poor, especially westbound Narrow lanes, no shoulders Speed Limit 35MPH	City of Fountain is planning to reconstruct this section as early as 2019, depending on funding
3.10			Overhead Electric	
3.25			Overhead Electric, Sight distance concern	
3.37			Overhead Electric	
3.45			Overhead Electric	
3.48			Speed Limit 45MPH	
3.80			Sight Distance Concern	
4.02			Narrow culvert crossing, culvert in very poor condition with sides rusted through	
4.22			Sight Distance Concern	
4.35			Steep side slopes, known location for run off road accidents	
4.60			Sight Distance Concern	
5.42			Overhead Electric	
5.42 to 5.88	Landfill Access Road	Recycled Asphalt	Good condition, well maintained	Waste Connections, Inc. is the landfill operator maintains this road for heavy truck traffic
5.78			Sight Distance Concern	
5.87			Truck turning and load rating over existing cattle guard	
5.88 to 5.91	Private Road	Gravel	Overhead Electric	Road to CSU Facilities near east edge of Palmer Solar site

**Western Access Route**

**Video Log 4**

**Primary Route Designation(s): Old Pueblo Road**

**Direction Traveled: Southbound**

**Beginning Point: Birdsell Road**

**End Point: I-25 Interchange MM 122**

**Distance: 2.98 Miles**

Video MM	Route	Road surface	Observed Condition	Other
0.00	Intersection	Asphalt	Fair Surface, recent chipseal, no striping	
0.00 to 2.96	Old Pueblo Road	Asphalt	Fair Surface, recent chipseal, no striping No shoulders Speed Limit 45 MPH	
0.67			Railroad crossing approach curve, truck turning, sight distance	
0.68			Railroad crossing, rough, Gated	
0.69			Railroad crossing approach curve, truck turning, sight distance, inside shoulder drainage issues	
0.78			Speed Limit 45 MPH	
0.92			Overhead Electric	
1.44			Y- intersection, yield control	
1.49			Shoulders added +- 4 ft.	
1.63			Fountain Creek Bridge	See Bridge Reports
1.85			Shoulders removed	
2.57			35 MPH advisory curve	
2.79			Railroad crossing approach curve, truck turning, sight distance	
2.82 to 2.83			Railroad crossing, rough, two tracks gated, separate	
2.85			Concrete low water crossing	
2.96	Intersection	Asphalt	Poor surface, no signal, two-way stop controlled (E/W) Narrow sections, limited room for turning trucks,	
			I-25 Mainline Bridge	See Bridge Reports

**Video Log 5**

**Primary Route Designation(s): Birdsall Road**

**Direction Traveled: Eastbound**

**Beginning Point: Old Pueblo Road Intersection (Video MM 1.12)**

**End Point: Private Gate (Video MM 2.48)**

**Distance: 1.36 Miles**

Video MM	Route	Road surface	Observed Condition	Other
1.12	Intersection	Asphalt	Fair Surface, recent chipseal, no striping	
1.12 to 1.91	Birdsall Road	Asphalt	Fair, no striping (centerline or shoulder)	
1.29			Railroad crossing, not gated, rough	
1.30			Overhead Electric	
1.33 to 1.37			Expansion cracks and longitudinal cracks, indicate potential crack/chip seal	
1.46, 1.50, 1.59			Expansion cracks	
1.75 to 1.91			Expansion cracks, sight distance issue	
1.91 to 2.48	Birdsall Road	Gravel	Good	
2.27 to 2.34			Indications of soft road surface, drainage issues	
2.37			Sight distance	
2.46			Buried cattle guard, narrow opening at gate	

**Other Considerations**

This assessment included a mix of state, county, city, and private facilities. The state facilities are in generally good shape. Private roads were also observed to be in good condition. El Paso County facilities on the eastern access route (Mesa Ridge Parkway and Marksheffel Road) are in good shape, and in good/fair condition on the western access route (Old Pueblo and Birdsall Roads).

The City of Fountain is responsible for Link Road and Squirrel Creek Road. Both are in poor condition with evident rutting, pavement and subgrade failures. Both these roads are being programmed for reconstruction, with Link scheduled in 2018.

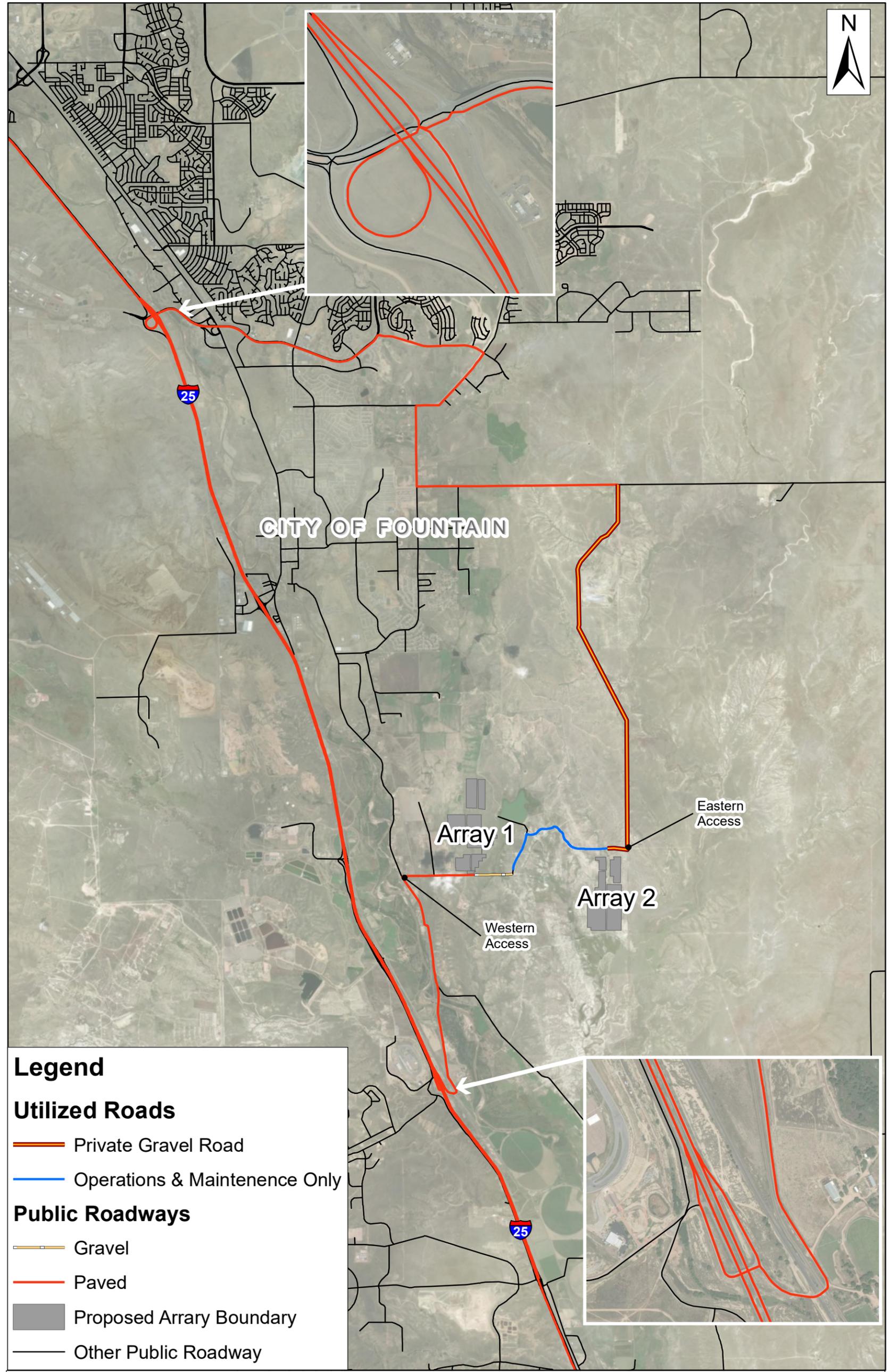
We sincerely appreciate this opportunity and look forward to working together on this and future assignments. Please contact us if you have any questions or concerns.

Sincerely,

**KIMLEY-HORN AND ASSOCIATES, INC.**



Ted Ritschard, PE  
Transportation Engineer



**Legend**

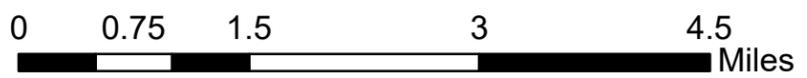
**Utilized Roads**

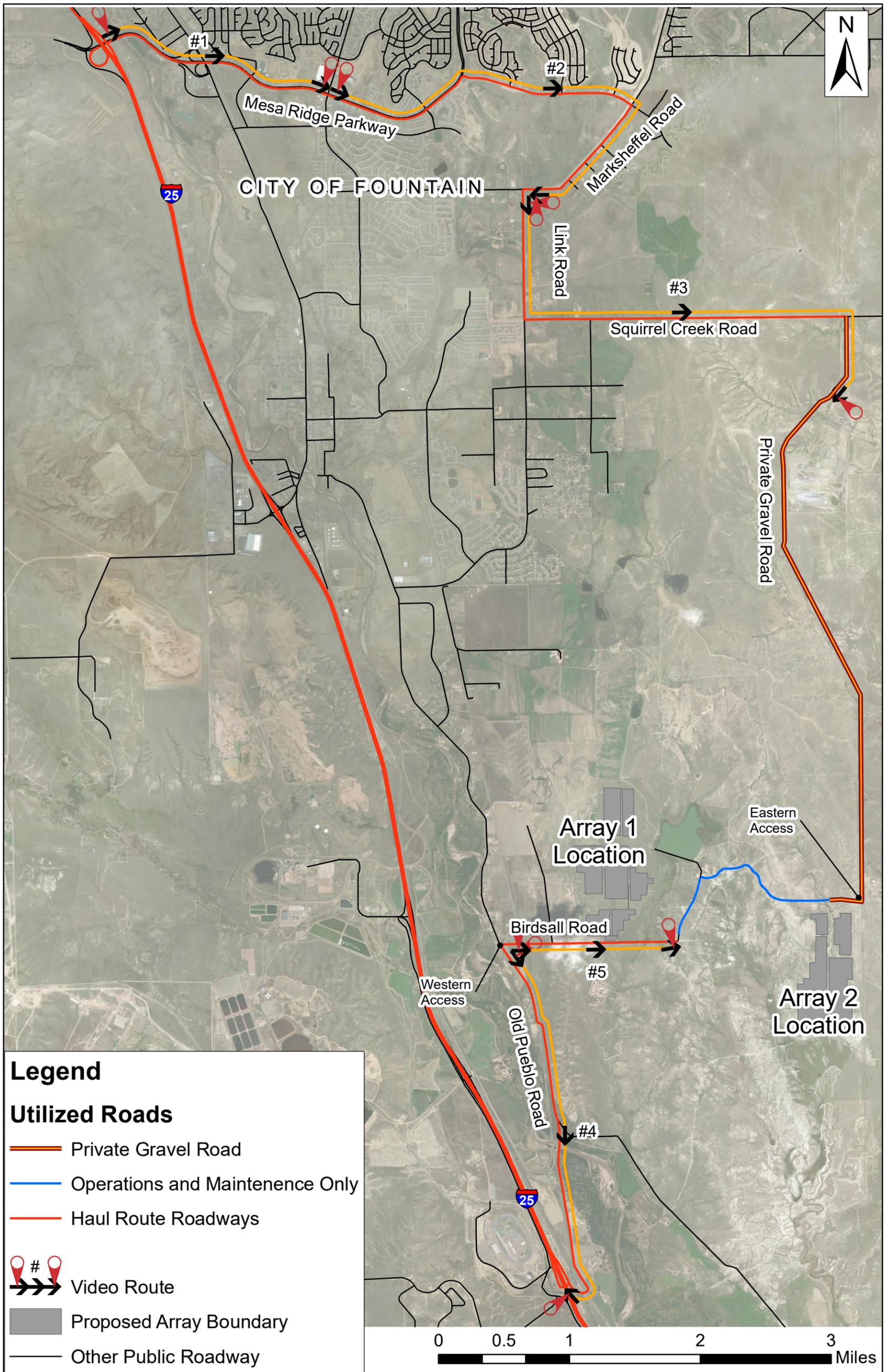
- Private Gravel Road
- Operations & Maintenance Only

**Public Roadways**

- Gravel
- Paved
- Proposed Array Boundary
- Other Public Roadway

**Figure 1**  
 Vicinity Map  
 El Paso County, Colorado





**Figure 2**  
 Road Inventory Video Routes  
 El Paso County, Colorado

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# SH 16A ML over I 25 ML

[El Paso County, Colorado](#)

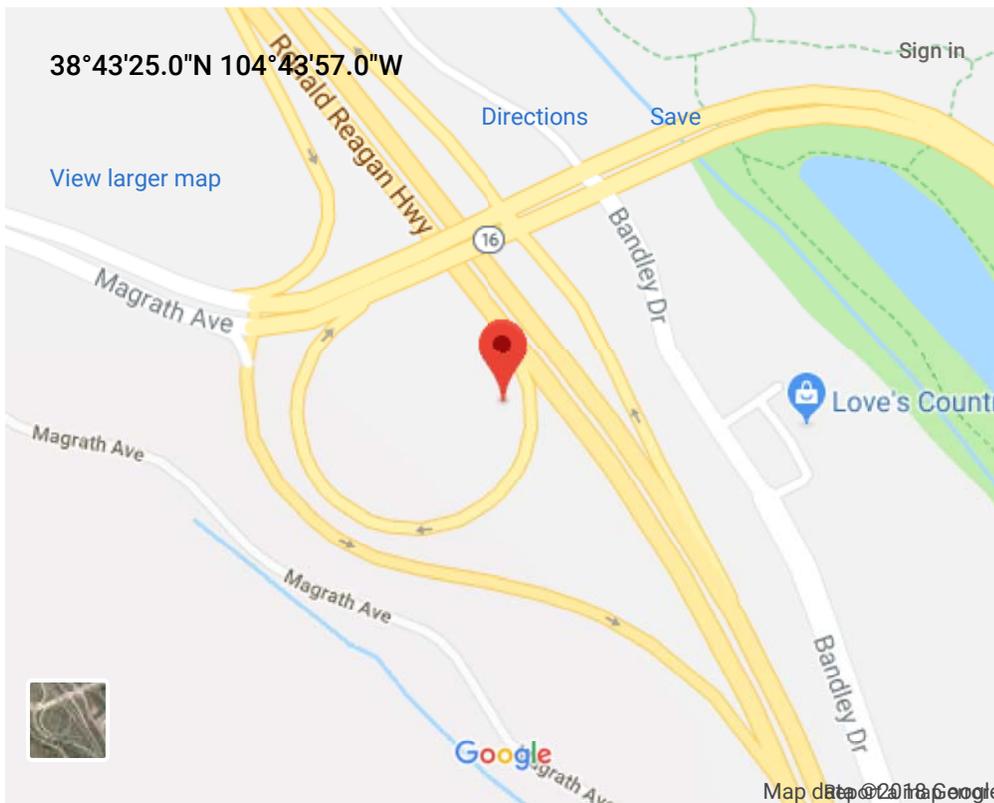
## Map

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- [MapQuest.com](#)
- [USGS National Map](#)
- [Geo URI \(Android\)](#)

### Coordinates:

+38.72361, -104.73250

38°43'25" N, 104°43'57" W



## Facts

Source: National Bridge Inventory  
Information not verified. Use at your own risk.

Name: SH 16A ML over I 25 ML  
 Structure number: J-18-BM  
 Location: SECURITY JCT I-25 A  
 Purpose: Carries highway overpass over highway  
 Route classification: Principal Arterial - Other Freeways or Expressways (Urban) [12]  
 Length of largest span: 108.9 ft. [33.2 m]  
 Total length: 220.5 ft. [67.2 m]  
 Roadway width between curbs: 116.1 ft. [35.4 m]  
 Deck width edge-to-edge: 124.0 ft. [37.8 m]  
 Vertical clearance below bridge: 18.7 ft. [5.7 m]  
 Skew angle: 14°  
 Owner: State Highway Agency [01]  
 Year built: 2009  
 Historic significance: Bridge is not eligible for the National Register of Historic Places [5]  
 Design load: MS 18 / HS 20 [5]  
 Number of main spans: 2  
 Main spans material: Prestressed concrete [5]  
 Main spans design: Stringer/Multi-beam or girder [02]  
 Deck type: Concrete Cast-in-Place [1]  
 Wearing surface: Monolithic Concrete (concurrently placed with structural deck) [1]

## Latest Available Inspection: December 2016

Good/Fair/Poor Condition: Good  
 Status: Open, no restriction [A]  
 Average daily traffic: 27,000 [as of 2011]  
 Truck traffic: 3% of total traffic  
 Deck condition: Good [7 out of 9]  
 Superstructure condition: Very Good [8 out of 9]  
 Substructure condition: Good [7 out of 9]  
 Structural appraisal: Better than present minimum criteria [7]  
 Deck geometry appraisal: Superior to present desirable criteria [9]  
 Underclearances appraisal: Better than present minimum criteria [7]  
 Roadway alignment appraisal: Equal to present desirable criteria [8]  
 Pier/abutment protection: Navigation protection not required [1]  
 Scour condition: Bridge not over waterway. [N]  
 Operating rating: 84.9 tons [77.2 metric tons]  
 Inventory rating: 45.4 tons [41.3 metric tons]  
 Sufficiency rating: 98.7

## Previous Inspections

Date	Suff. Rating	Condition	Deck	Superstructure	Substructure	SD/FO	ADT
December 2016	98.7	Good	Good	Very Good	Good	-	27000
December 2014	98.7	Good	Good	Very Good	Good	-	27000
December 2012	99.0	Good	Very Good	Very Good	Very Good	-	21400
December 2010	99.0	Good	Very Good	Very Good	Very Good	-	21400

May 2009      99.0      Good      Excellent      Excellent      Excellent      -      21400

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# SH 16 ML over FOUNTAIN CREEK

[El Paso County, Colorado](#)

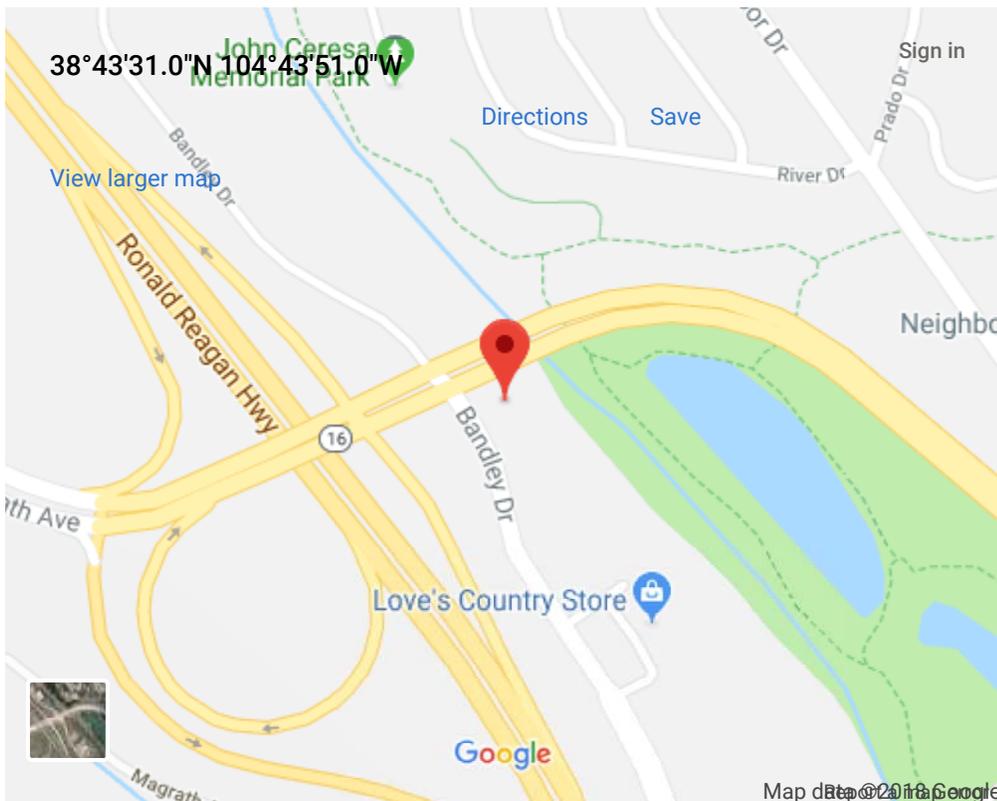
## Map

- [Google Maps](#)
- [Bing Maps](#)
- [OpenStreetMap](#)
- [MapQuest.com](#)
- [USGS National Map](#)
- [Geo URI \(Android\)](#)

### Coordinates:

+38.72528, -104.73083

38°43'31" N, 104°43'51" W



## Facts

Source: National Bridge Inventory  
Information not verified. Use at your own risk.

Name:	SH 16 ML over FOUNTAIN CREEK
Structure number:	J-18-BN
Location:	JUST E. OF SECURITY INT.
Purpose:	Carries highway over waterway
Route classification:	Principal Arterial - Other Freeways or Expressways (Urban) [12]
Length of largest span:	129.3 ft. [39.4 m]
Total length:	370.8 ft. [113.0 m]
Roadway width between curbs:	130.9 ft. [39.9 m]
Deck width edge-to-edge:	133.9 ft. [40.8 m]
Skew angle:	20°
Owner:	State Highway Agency [01]
Year built:	2009
Historic significance:	Bridge is not eligible for the National Register of Historic Places [5]
Design load:	MS 18 / HS 20 [5]
Number of main spans:	3
Main spans material:	Prestressed concrete continuous [6]
Main spans design:	Stringer/Multi-beam or girder [02]
Deck type:	Concrete Cast-in-Place [1]
Wearing surface:	Monolithic Concrete (concurrently placed with structural deck) [1]

## Latest Available Inspection: December 2016

Good/Fair/Poor Condition:	Good
Status:	Open, no restriction [A]
Average daily traffic:	20,000 [as of 2011]
Truck traffic:	3% of total traffic
Deck condition:	Good [7 out of 9]
Superstructure condition:	Very Good [8 out of 9]
Substructure condition:	Good [7 out of 9]
Structural appraisal:	Better than present minimum criteria [7]
Deck geometry appraisal:	Superior to present desirable criteria [9]
Water adequacy appraisal:	Equal to present desirable criteria [8]
Roadway alignment appraisal:	Equal to present desirable criteria [8]
Channel protection:	Banks are protected or well vegetated. River control devices such as spur dikes and embankment protection are not required or are in a stable condition. [8]
Pier/abutment protection:	Navigation protection not required [1]
Scour condition:	Bridge foundations determined to be stable for the assessed or calculated scour condition. [8]
Operating rating:	89.8 tons [81.6 metric tons]
Inventory rating:	52.1 tons [47.4 metric tons]
Sufficiency rating:	86.9

Recommended work: Widening of existing bridge or other major structure without deck rehabilitation or replacement [33]

Estimated cost of work: \$1,255,000

## Previous Inspections

Date	Suff. Rating	Condition	Deck	Superstructure	Substructure	SD/FO	ADT
December 2016	86.9	Good	Good	Very Good	Good	-	20000
December 2014	86.9	Good	Good	Very Good	Good	-	20000
January 2013	86.4	Good	Very Good	Very Good	Very Good	-	20700
December 2010	86.4	Good	Very Good	Very Good	Very Good	-	20700
May 2009	86.4	Good	Very Good	Very Good	Very Good	-	20700

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# SH 16 ML over US 85 ML, BNSF RR, UP RR

[El Paso County, Colorado](#)

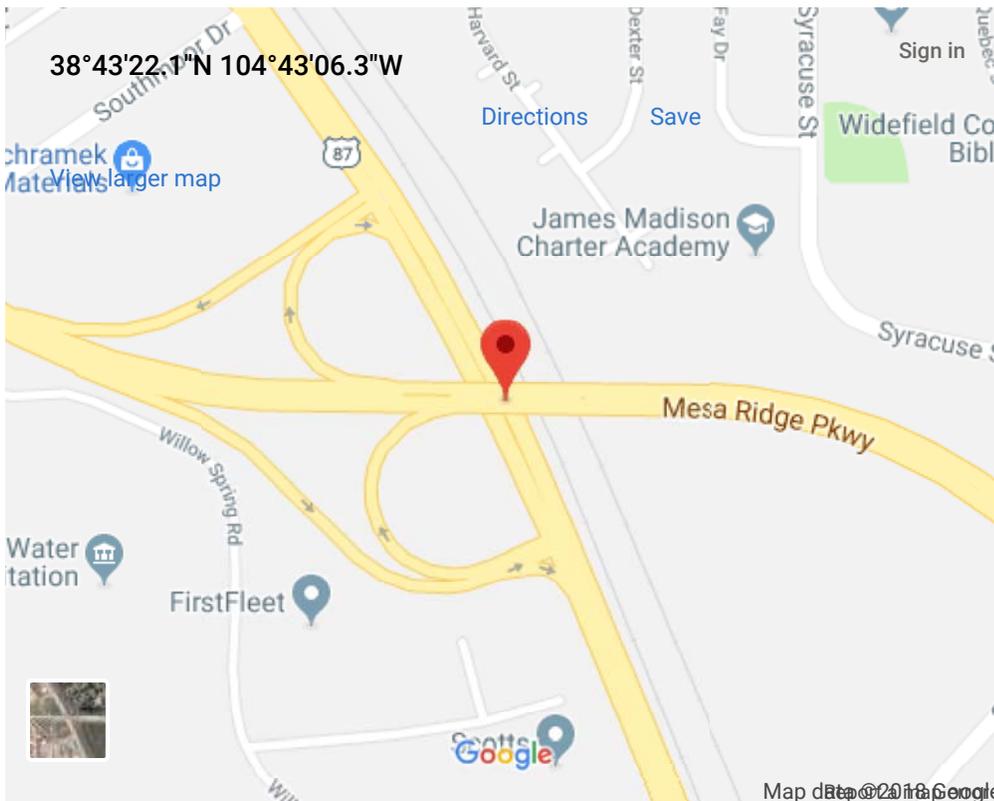
## Map

- [Google Maps](#)
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- [OpenStreetMap](#)
- [MapQuest.com](#)
- [USGS National Map](#)
- [Geo URI \(Android\)](#)

### Coordinates:

+38.72282, -104.71841

38°43'22" N, 104°43'06" W



## Facts

Source: National Bridge Inventory  
Information not verified. Use at your own risk.

Name: SH 16 ML over US 85 ML,BNSF RR,UP RR  
 Structure number: J-18-BJ  
 Location: 0.8 MI E OF JCT I 25  
 Purpose: Carries highway overpass over highway and railroad  
 Route classification: Principal Arterial - Other Freeways or Expressways (Urban) [12]  
 Length of largest span: 126.6 ft. [38.6 m]  
 Total length: 425.5 ft. [129.7 m]  
 Roadway width between curbs: 44.0 ft. [13.4 m]  
 Deck width edge-to-edge: 48.9 ft. [14.9 m]  
 Vertical clearance below bridge: 20.0 ft. [6.1 m]  
 Skew angle: 27°  
 Owner: State Highway Agency [01]  
 Year built: 1976  
 Year reconstructed: 2009  
 Historic significance: Bridge is not eligible for the National Register of Historic Places [5]  
 Design load: MS 18+Mod / HS 20+Mod [6]  
 Number of main spans: 4  
 Main spans material: Steel continuous [4]  
 Main spans design: Stringer/Multi-beam or girder [02]  
 Deck type: Concrete Cast-in-Place [1]  
 Wearing surface: Integral Concrete (separate non-modified layer of concrete added to structural deck) [2]

## Latest Available Inspection: December 2016

Good/Fair/Poor Condition: Fair  
 Status: Open, no restriction [A]  
 Average daily traffic: 10,000 [as of 2011]  
 Truck traffic: 3% of total traffic  
 Deck condition: Good [7 out of 9]  
 Superstructure condition: Satisfactory [6 out of 9]  
 Substructure condition: Good [7 out of 9]  
 Structural appraisal: Equal to present minimum criteria [6]  
 Deck geometry appraisal: Meets minimum tolerable limits to be left in place as is [4]  
 Underclearances appraisal: Somewhat better than minimum adequacy to tolerate being left in place as is [5]  
 Roadway alignment appraisal: Equal to present desirable criteria [8]  
 Scour condition: Bridge not over waterway. [N]  
 Operating rating: 52.8 tons [48.0 metric tons]  
 Inventory rating: 31.7 tons [28.8 metric tons]  
 Sufficiency rating: 79.2

## Previous Inspections

Date	Suff. Rating	Condition	Deck	Superstructure	Substructure	SD/FO	ADT
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December 2016	79.2	Fair	Good	Satisfactory	Good	-	10000
January 2015	79.2	Fair	Good	Satisfactory	Good	-	10000
December 2012	79.5	Fair	Good	Satisfactory	Good	-	20700
December 2010	79.5	Fair	Good	Satisfactory	Good	-	20700
January 2009	95.8	Fair	Good	Satisfactory	Good	-	20700
November 2006	96.1	Fair	Good	Satisfactory	Good	-	17800
October 2004	96.4	Fair	Good	Satisfactory	Good	-	11413
October 2002	96.6	Fair	Good	Satisfactory	Good	-	7639
October 2000	97.1	Good	Good	Good	Good	-	7487
December 1998	97.1	Good	Good	Good	Good	-	7487
November 1996	97.2	Good	Good	Good	Good	-	6350
January 1995	93.3	Good	Good	Good	Good	-	6350
December 1992	82.4	Good	Good	Good	Good	-	6100
November 1990	84.5	Good	Good	Good	Good	-	5100

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# SH 16 EBND ML over CREWS GULCH

[El Paso County, Colorado](#)

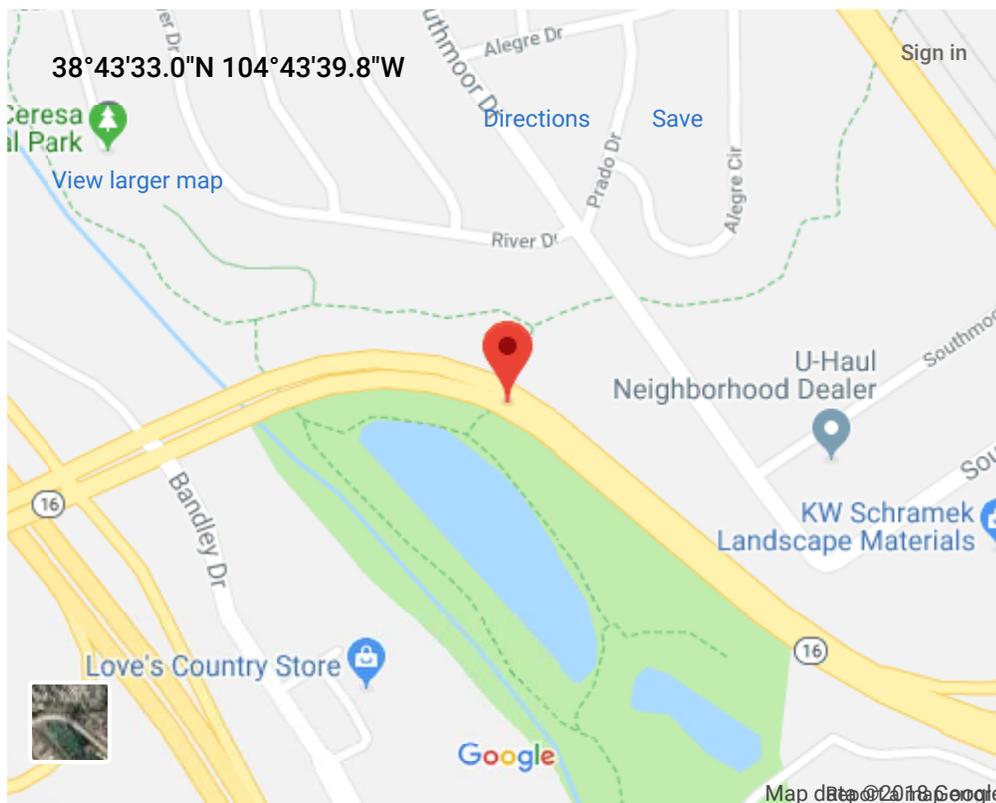
## Map

- [Google Maps](#)
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- [OpenStreetMap](#)
- [MapQuest.com](#)
- [USGS National Map](#)
- [Geo URI \(Android\)](#)

### Coordinates:

+38.72582, -104.72772

38°43'33" N, 104°43'40" W



## Facts

Source: National Bridge Inventory  
Information not verified. Use at your own risk.

Name:	SH 16 EBND ML over CREWS GULCH
Structure number:	J-18-BI
Location:	0.3 MI E OF SECURITY INT.
Purpose:	Carries highway over waterway
Route classification:	Principal Arterial - Other Freeways or Expressways (Urban) [12]
Length of largest span:	61.0 ft. [18.6 m]
Total length:	217.5 ft. [66.3 m]
Roadway width between curbs:	44.0 ft. [13.4 m]
Deck width edge-to-edge:	46.6 ft. [14.2 m]
Owner:	State Highway Agency [01]
Year built:	1974
Historic significance:	Bridge is not eligible for the National Register of Historic Places [5]
Design load:	MS 18 / HS 20 [5]
Number of main spans:	4
Main spans material:	Concrete continuous [2]
Main spans design:	Tee beam [04]
Deck type:	Concrete Cast-in-Place [1]
Wearing surface:	Bituminous [6]

## Latest Available Inspection: December 2016

Good/Fair/Poor Condition:	Fair
Status:	Open, no restriction [A]
Average daily traffic:	20,000 [as of 2011]
Truck traffic:	3% of total traffic
Deck condition:	Satisfactory [6 out of 9]
Superstructure condition:	Very Good [8 out of 9]
Substructure condition:	Very Good [8 out of 9]
Structural appraisal:	Equal to present desirable criteria [8]
Deck geometry appraisal:	Equal to present minimum criteria [6]
Water adequacy appraisal:	Equal to present desirable criteria [8]
Roadway alignment appraisal:	Equal to present desirable criteria [8]
Channel protection:	Banks are protected or well vegetated. River control devices such as spur dikes and embankment protection are not required or are in a stable condition. [8]
Pier/abutment protection:	Navigation protection not required [1]
Scour condition:	Bridge foundations determined to be stable for assessed or calculated scour condition. [5]
Operating rating:	72.3 tons [65.7 metric tons]
Inventory rating:	43.5 tons [39.5 metric tons]
Sufficiency rating:	97.2

## Previous Inspections

Date	Suff. Rating	Condition	Deck	Superstructure	Substructure	SD/FO	ADT
December 2016	97.2	Fair	Satisfactory	Very Good	Very Good	-	20000
December 2014	97.2	Fair	Satisfactory	Very Good	Very Good	-	20000
December 2012	96.8	Good	Good	Very Good	Very Good	-	17800
December 2010	96.8	Good	Good	Very Good	Very Good	-	17800
May 2009	96.8	Good	Good	Very Good	Very Good	-	17800
November 2006	71.6	Good	Good	Very Good	Very Good	-	17800
October 2004	88.6	Good	Good	Very Good	Very Good	-	15619
October 2002	89.1	Good	Good	Very Good	Very Good	-	12192
October 2000	88.9	Good	Good	Very Good	Very Good	-	11919
December 1998	88.9	Good	Good	Very Good	Very Good	-	11919
November 1996	94.1	Good	Good	Very Good	Very Good	-	10000
October 1994	76.6	Good	Good	Very Good	Very Good	-	10000
December 1992	78.9	Good	Good	Very Good	Very Good	-	11500
November 1990	80.8	Good	Good	Good	Good	-	12000

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# SH 16 WBND ML over CREWS GULCH

[El Paso County, Colorado](#)

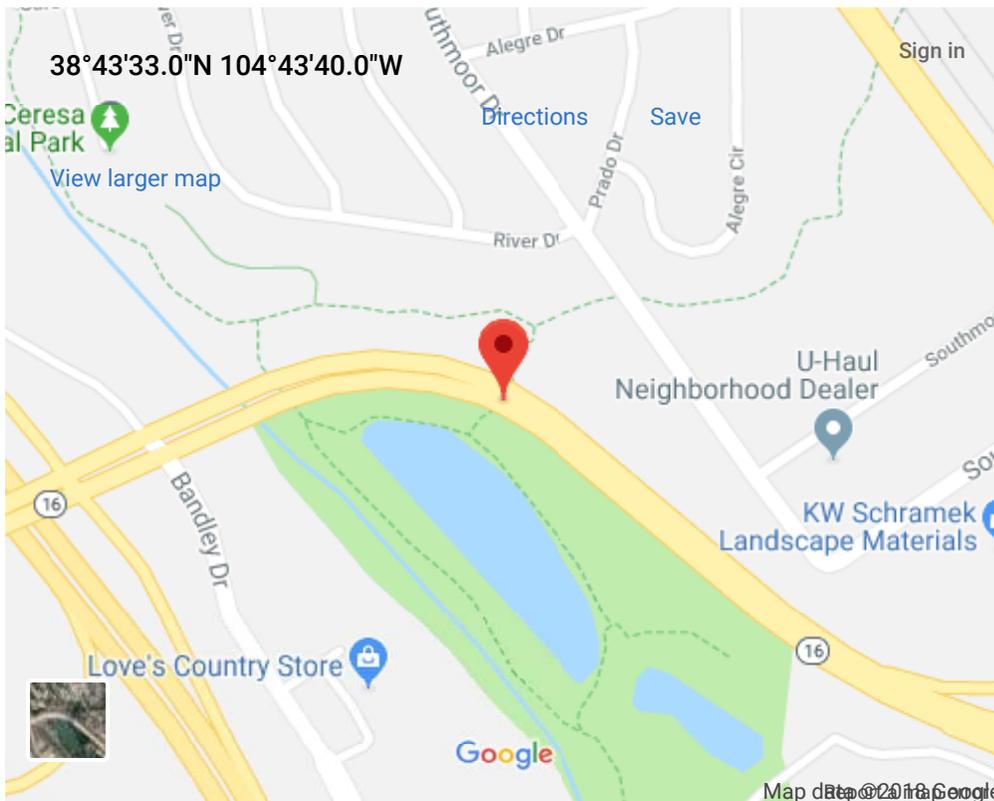
## Map

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- [OpenStreetMap](#)
- [MapQuest.com](#)
- [USGS National Map](#)
- [Geo URI \(Android\)](#)

### Coordinates:

+38.72583, -104.72778

38°43'33" N, 104°43'40" W



## Facts

Source: National Bridge Inventory  
Information not verified. Use at your own risk.

Name:	SH 16 WBND ML over CREWS GULCH
Structure number:	J-18-BO
Location:	JUST E OF WIDEFLD INTRCHN
Purpose:	Carries highway over waterway
Route classification:	Principal Arterial - Other Freeways or Expressways (Urban) [12]
Length of largest span:	107.6 ft. [32.8 m]
Total length:	217.5 ft. [66.3 m]
Roadway width between curbs:	38.1 ft. [11.6 m]
Deck width edge-to-edge:	41.0 ft. [12.5 m]
Vertical clearance below bridge:	100.1 ft. [30.5 m]
Owner:	State Highway Agency [01]
Year built:	2009
Historic significance:	Bridge is not eligible for the National Register of Historic Places [5]
Design load:	MS 18 / HS 20 [5]
Number of main spans:	2
Main spans material:	Prestressed concrete continuous [6]
Main spans design:	Stringer/Multi-beam or girder [02]
Deck type:	Concrete Cast-in-Place [1]
Wearing surface:	Monolithic Concrete (concurrently placed with structural deck) [1]

## Latest Available Inspection: December 2016

Good/Fair/Poor Condition:	Good
Status:	Open, no restriction [A]
Average daily traffic:	20,000 [as of 2011]
Truck traffic:	3% of total traffic
Deck condition:	Very Good [8 out of 9]
Superstructure condition:	Very Good [8 out of 9]
Substructure condition:	Good [7 out of 9]
Structural appraisal:	Better than present minimum criteria [7]
Deck geometry appraisal:	Somewhat better than minimum adequacy to tolerate being left in place as is [5]
Water adequacy appraisal:	Equal to present desirable criteria [8]
Roadway alignment appraisal:	Equal to present desirable criteria [8]
Channel protection:	Banks are protected or well vegetated. River control devices such as spur dikes and embankment protection are not required or are in a stable condition. [8]
Pier/abutment protection:	Navigation protection not required [1]
Scour condition:	Bridge foundations determined to be stable for the assessed or calculated scour condition. [8]
Operating rating:	60.6 tons [55.1 metric tons]
Inventory rating:	36.2 tons [32.9 metric tons]
Sufficiency rating:	97.1

## Previous Inspections

Date	Suff. Rating	Condition	Deck	Superstructure	Substructure	SD/FO	ADT
December 2016	97.1	Good	Very Good	Very Good	Good	-	20000
December 2014	97.1	Good	Very Good	Very Good	Good	-	20000
December 2012	95.0	Good	Excellent	Excellent	Excellent	-	21500
December 2010	95.0	Good	Excellent	Excellent	Excellent	-	21500
May 2009	95.0	Good	Excellent	Excellent	Excellent	-	21500

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# SH 16 ML over Overflow Channel

[El Paso County, Colorado](#)

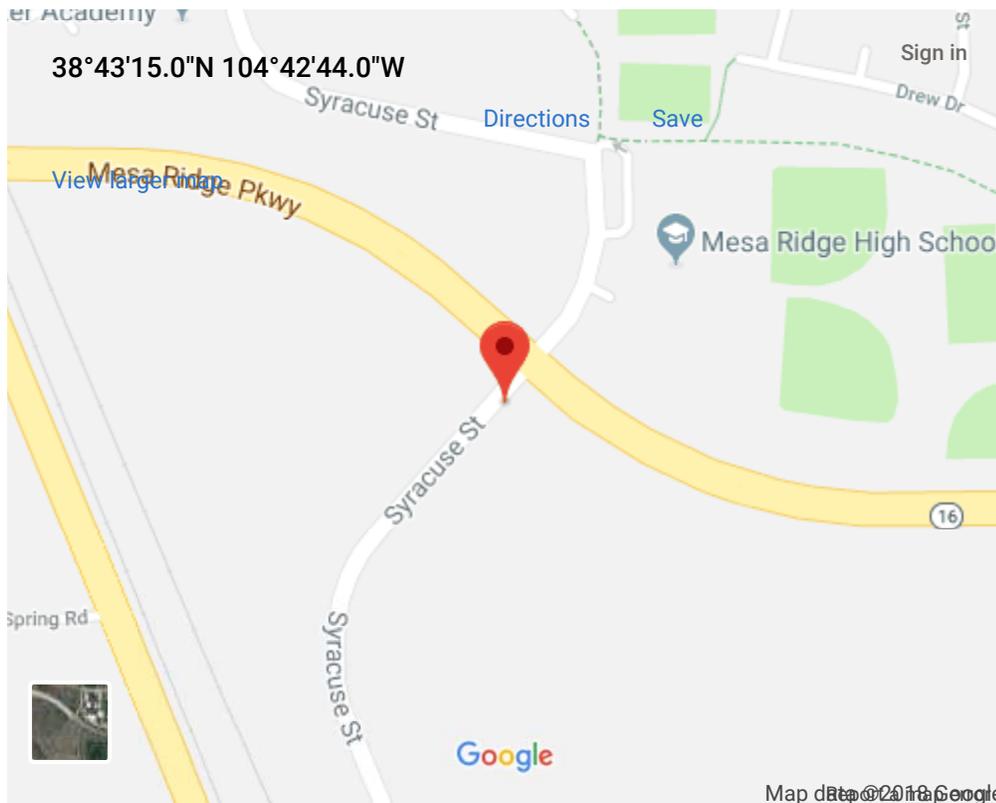
## Map

- [Google Maps](#)
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- [MapQuest.com](#)
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### Coordinates:

+38.72083, -104.71222

38°43'15" N, 104°42'44" W



## Facts

Source: National Bridge Inventory  
Information not verified. Use at your own risk.

Name:	SH 16 ML over Overflow Channel
Structure number:	J-18-R
Location:	0.2 mi E of Jct US 85
Purpose:	Carries highway over waterway
Route classification:	Principal Arterial - Other Freeways or Expressways (Urban) [12]
Length of largest span:	9.8 ft. [3.0 m]
Total length:	31.8 ft. [9.7 m]
Deck width edge-to-edge:	245.4 ft. [74.8 m]
Vertical clearance below bridge:	99.1 ft. [30.2 m]
Owner:	State Highway Agency [01]
Year built:	1988
Historic significance:	Bridge is not eligible for the National Register of Historic Places [5]
Number of main spans:	3
Main spans material:	Concrete [1]
Main spans design:	Culvert [19]
Deck type:	Not applicable [N]

## Latest Available Inspection: December 2016

Good/Fair/Poor Condition:	Good
Status:	Open, no restriction [A]
Average daily traffic:	18,000 [as of 2011]
Truck traffic:	3% of total traffic
Structural appraisal:	Better than present minimum criteria [7]
Water adequacy appraisal:	Equal to present desirable criteria [8]
Roadway alignment appraisal:	Better than present minimum criteria [7]
Channel protection:	Bank protection is in need of minor repairs. River control devices and embankment protection have a little minor damage. Banks and/or channel have minor amounts of drift. [7]
Pier/abutment protection:	Navigation protection not required [1]
Culvert condition:	Shrinkage cracks, light scaling and insignificant spalling which does not expose reinforcing steel. Insignificant damage caused by drift with no misalignment and not requiring corrective action. Some minor scouring has occurred near curtain walls, wingwalls or pipes. Metal culverts have a smooth symmetrical curvature with superficial corrosion and no pitting. [7]
Scour condition:	Bridge foundations determined to be stable for the assessed or calculated scour condition. [8]
Operating rating:	89.8 tons [81.6 metric tons]
Inventory rating:	80.0 tons [72.7 metric tons]
Sufficiency rating:	84.0

## Previous Inspections

Date	Suff. Rating	Condition	Culvert Condition	SD/FO	ADT
December 2016	84.0	Good	7 out of 10	-	18000
December 2014	84.0	Good	7 out of 10	-	18000
December 2012	83.9	Good	7 out of 10	-	18700
December 2010	83.9	Good	7 out of 10	-	18700
January 2009	83.9	Good	7 out of 10	-	18700
March 2006	84.1	Good	7 out of 10	-	15600

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# MESA RIDGE PKWY over LOCAL DRAINAGE

[El Paso County, Colorado](#)

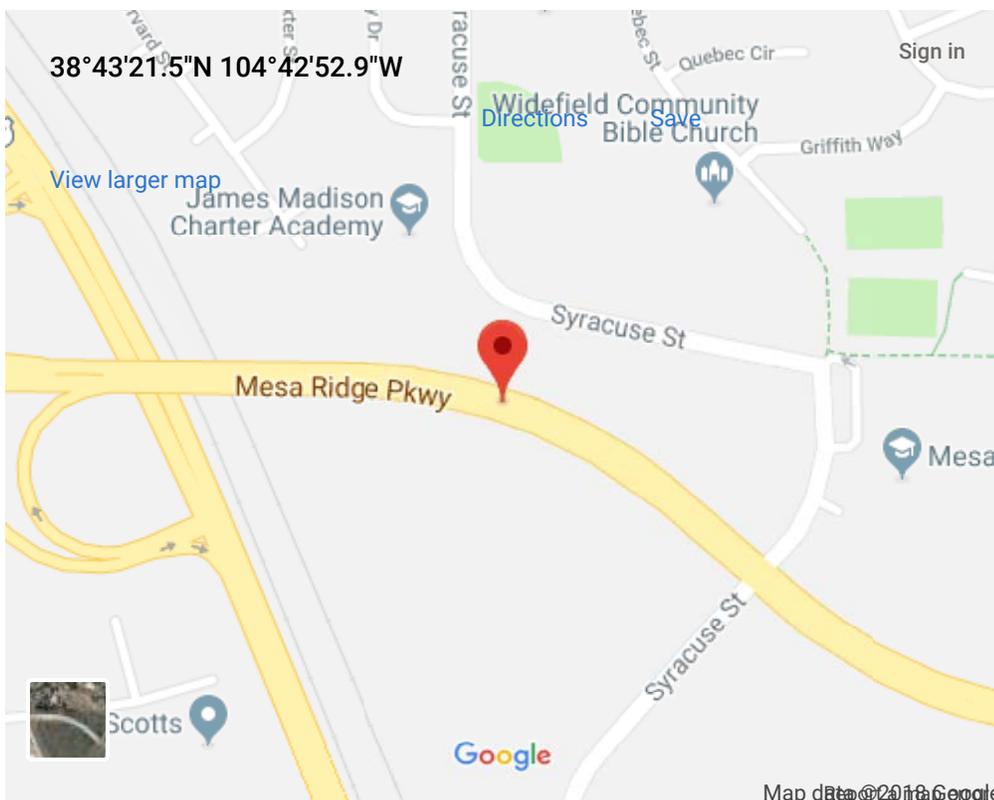
## Map

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- [MapQuest.com](#)
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- [Geo URI \(Android\)](#)

### Coordinates:

+38.72264, -104.71469

38°43'22" N, 104°42'53" W



Map data ©2016 Google

Source: National Bridge Inventory  
Information not verified. Use at your own risk.

## Facts

Name: MESA RIDGE PKWY over LOCAL DRAINAGE  
Structure number: EPC2938-00.14  
Location: .14 MI EAST OF HWY 85-87  
Purpose: Carries highway over waterway  
Route classification: Minor Collector (Rural) [08]  
Length of largest span: 10.5 ft. [3.2 m]  
Total length: 33.1 ft. [10.1 m]  
Deck width edge-to-edge: 230.0 ft. [70.1 m]  
Skew angle: 17°  
Owner: County Highway Agency [02]  
Year built: 1996  
Historic significance: Bridge is not eligible for the National Register of Historic Places [5]  
Design load: MS 18 / HS 20 [5]  
Number of main spans: 3  
Main spans material: Concrete [1]  
Main spans design: Culvert [19]  
Deck type: Not applicable [N]

## Latest Available Inspection: February 2016

Good/Fair/Poor Condition: Good  
Status: Open, no restriction [A]  
Average daily traffic: 9,592 [as of 2013]  
Truck traffic: 4% of total traffic  
Structural appraisal: Better than present minimum criteria [7]  
Water adequacy appraisal: Equal to present desirable criteria [8]  
Roadway alignment appraisal: Equal to present desirable criteria [8]  
Channel protection: Bank protection is in need of minor repairs. River control devices and embankment protection have a little minor damage. Banks and/or channel have minor amounts of drift. [7]  
Culvert condition: Shrinkage cracks, light scaling and insignificant spalling which does not expose reinforcing steel. Insignificant damage caused by drift with no misalignment and not requiring corrective action. Some minor scouring has occurred near curtain walls, wingwalls or pipes. Metal culverts have a smooth symmetrical curvature with superficial corrosion and no pitting. [7]  
Scour condition: Bridge foundations determined to be stable for the assessed or calculated scour condition. [8]  
Operating rating: 89.8 tons [81.6 metric tons]  
Inventory rating: 89.8 tons [81.6 metric tons]  
83.4

Sufficiency

rating:

Recommended  
work:

Other structural work, including hydraulic replacements. [38]

## Previous Inspections

Date	Suff. Rating	Condition	Culvert Condition	SD/FO	ADT
February 2016	83.4	Good	7 out of 10	-	9592
February 2012	81.4	Good	7 out of 10	-	21099
January 2008	81.4	Good	7 out of 10	-	21331
March 2004	70.8	Good	7 out of 10	-	21331
February 2002	82.9	Good	7 out of 10	-	12296
April 2000	98.3	Good	7 out of 10	-	12296

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# LINK ROAD over JIMMY CAMP CREEK

[El Paso County, Colorado](#)

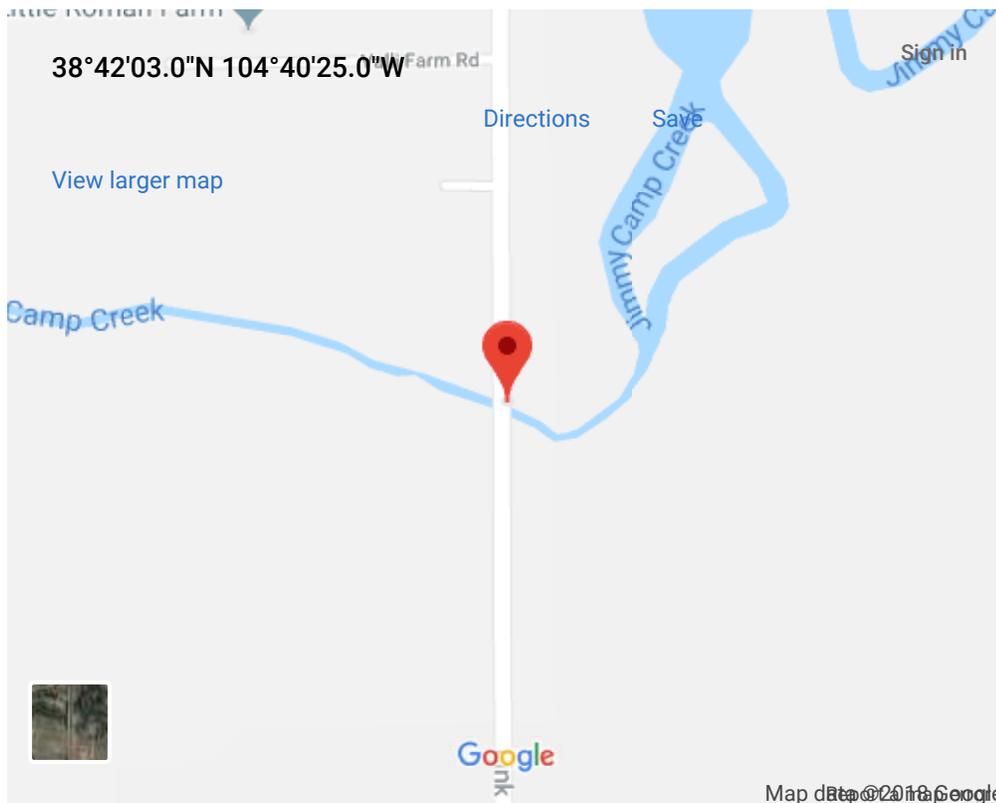
## Map

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- [MapQuest.com](#)
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- [Geo URI \(Android\)](#)

### Coordinates:

+38.70083, -104.67361

38°42'03" N, 104°40'25" W



## Facts

Source: National Bridge Inventory  
Information not verified. Use at your own risk.

Name:	LINK ROAD over JIMMY CAMP CREEK
Structure number:	FOUNTAIN-4
Location:	.5 MI S OF MARKSHEFFEL RD
Purpose:	Carries highway over waterway
Route classification:	Minor Collector (Rural) [08]
Length of largest span:	79.7 ft. [24.3 m]
Total length:	251.0 ft. [76.5 m]
Roadway width between curbs:	52.2 ft. [15.9 m]
Deck width edge-to-edge:	54.5 ft. [16.6 m]
Owner:	City or Municipal Highway Agency [04]
Year built:	1997
Historic significance:	Bridge is not eligible for the National Register of Historic Places [5]
Number of main spans:	3
Main spans material:	Prestressed concrete continuous [6]
Main spans design:	Stringer/Multi-beam or girder [02]
Deck type:	Concrete Cast-in-Place [1]
Wearing surface:	Bituminous [6]

## Latest Available Inspection: February 2016

Good/Fair/Poor Condition:	Fair
Status:	Open, no restriction [A]
Average daily traffic:	4,015 [as of 2013]
Truck traffic:	9% of total traffic
Deck condition:	Good [7 out of 9]
Superstructure condition:	Good [7 out of 9]
Substructure condition:	Satisfactory [6 out of 9]
Structural appraisal:	Equal to present minimum criteria [6]
Deck geometry appraisal:	Superior to present desirable criteria [9]
Water adequacy appraisal:	Equal to present desirable criteria [8]
Roadway alignment appraisal:	Equal to present desirable criteria [8]
Channel protection:	Bank protection is being eroded. River control devices and/or embankment have major damage. Trees and rush restrict the channel. [5]
Scour condition:	Bridge foundations determined to be stable for assessed or calculated scour condition. [5]
Operating rating:	89.8 tons [81.6 metric tons]
Inventory rating:	55.1 tons [50.1 metric tons]
Sufficiency rating:	98.1
Recommended work:	Other structural work, including hydraulic replacements. [38]
Estimated cost of work:	\$28,000

## Previous Inspections

Date	Suff. Rating	Condition	Deck	Superstructure	Substructure	SD/FO	ADT
February 2016	98.1	Fair	Good	Good	Satisfactory	-	4015
February 2014	98.1	Good	Good	Good	Good	-	4015
February 2012	99.1	Good	Good	Good	Good	-	4015

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# OLD PUEBLO ROAD over FOUNTAIN CREEK

[El Paso County, Colorado](#)

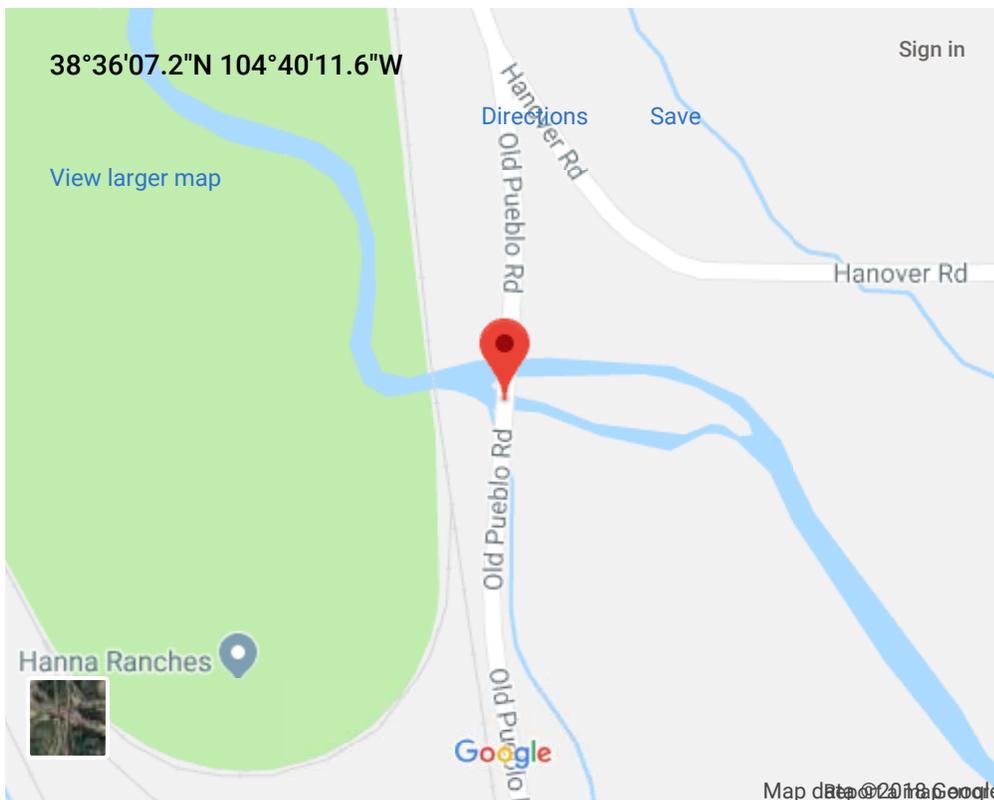
## Map

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- [MapQuest.com](#)
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- [Geo URI \(Android\)](#)

### Coordinates:

+38.60199, -104.66988

38°36'07" N, 104°40'12" W



Source: National Bridge Inventory  
Information not verified. Use at your own risk.

## Facts

Name:	OLD PUEBLO ROAD over FOUNTAIN CREEK
Structure number:	EPC0415-01.20A
Location:	0.2 MI S OF HANOVER ROAD
Purpose:	Carries highway over waterway
Route classification:	Minor Collector (Rural) [08]
Length of largest span:	138.5 ft. [42.2 m]
Total length:	285.4 ft. [87.0 m]
Roadway width between curbs:	36.1 ft. [11.0 m]
Deck width edge-to-edge:	38.7 ft. [11.8 m]
Skew angle:	9°
Owner:	County Highway Agency [02]
Year built:	1989
Historic significance:	Bridge is not eligible for the National Register of Historic Places [5]
Design load:	MS 18 / HS 20 [5]
Number of main spans:	2
Main spans material:	Prestressed concrete continuous [6]
Main spans design:	Stringer/Multi-beam or girder [02]
Deck type:	Concrete Cast-in-Place [1]
Wearing surface:	Bituminous [6]

## Latest Available Inspection: February 2016

Good/Fair/Poor Condition:	Good
Status:	Open, no restriction [A]
Average daily traffic:	624 [as of 2013]
Truck traffic:	9% of total traffic
Deck condition:	Good [7 out of 9]
Superstructure condition:	Very Good [8 out of 9]
Substructure condition:	Good [7 out of 9]
Structural appraisal:	Better than present minimum criteria [7]
Deck geometry appraisal:	Better than present minimum criteria [7]
Water adequacy appraisal:	Equal to present desirable criteria [8]
Roadway alignment appraisal:	Equal to present desirable criteria [8]
Channel protection:	Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly. [6]
Scour condition:	Bridge foundations determined to be stable for assessed or calculated scour condition. [5]
Operating rating:	68.5 tons [62.3 metric tons]

Inventory rating: 36.5 tons [33.2 metric tons]  
Sufficiency rating: 99.4

## Previous Inspections

Date	Suff. Rating	Condition	Deck	Superstructure	Substructure	SD/FO	ADT
February 2016	99.4	Good	Good	Very Good	Good	-	624
February 2014	99.4	Good	Good	Very Good	Good	-	624
February 2012	99.4	Good	Good	Very Good	Good	-	659
March 2010	99.4	Good	Good	Very Good	Good	-	659
February 2008	99.5	Good	Good	Very Good	Good	-	561
March 2006	99.5	Good	Good	Very Good	Good	-	561
March 2004	99.5	Good	Very Good	Very Good	Very Good	-	561
February 2002	99.7	Good	Very Good	Very Good	Very Good	-	388
April 2000	99.7	Good	Very Good	Very Good	Very Good	-	388
June 1999	99.7	Good	Very Good	Very Good	Very Good	-	388
June 1998	99.7	Good	Very Good	Very Good	Very Good	-	388
October 1996	100.0	Good	Very Good	Very Good	Very Good	-	33
May 1994	100.0	Good	Very Good	Very Good	Very Good	-	33
August 1992	100.0	Good	Very Good	Very Good	Very Good	-	33
August 1990	99.8	Good	Very Good	Very Good	Very Good	-	138

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# COUNTY ROAD 415 over I 25 ML

[El Paso County, Colorado](#)

## Map

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- [MapQuest.com](#)
- [USGS National Map](#)
- [Geo URI \(Android\)](#)

### Coordinates:

+38.58649, -104.66932

38°35'11" N, 104°40'10" W



## Facts

Source: National Bridge Inventory  
Information not verified. Use at your own risk.

Name:	COUNTY ROAD 415 over I 25 ML
Structure number:	J-18-P
Location:	6.4 MI S OF SH85-FOUNTAIN
Purpose:	Carries highway overpass over highway
Route classification:	Minor Collector (Rural) [08]
Length of largest span:	65.6 ft. [20.0 m]
Total length:	216.2 ft. [65.9 m]
Roadway width between curbs:	27.9 ft. [8.5 m]
Deck width edge-to-edge:	32.2 ft. [9.8 m]
Vertical clearance below bridge:	17.1 ft. [5.2 m]
Owner:	State Highway Agency [01]
Year built:	1958
Historic significance:	Bridge is not eligible for the National Register of Historic Places [5]
Design load:	MS 18 / HS 20 [5]
Number of main spans:	4
Main spans material:	Concrete continuous [2]
Main spans design:	Tee beam [04]
Deck type:	Concrete Cast-in-Place [1]
Wearing surface:	Bituminous [6]

## Latest Available Inspection: August 2016

Good/Fair/Poor Condition:	Fair
Status:	Open, no restriction [A]
Average daily traffic:	1,059 [as of 2013]
Truck traffic:	13% of total traffic
Deck condition:	Satisfactory [6 out of 9]
Superstructure condition:	Good [7 out of 9]
Substructure condition:	Good [7 out of 9]
Structural appraisal:	Equal to present minimum criteria [6]
Deck geometry appraisal:	Somewhat better than minimum adequacy to tolerate being left in place as is [5]
Underclearances appraisal:	Basically intolerable requiring high priority of corrective action [3]
Roadway alignment appraisal:	Equal to present desirable criteria [8]
Scour condition:	Bridge not over waterway. [N]
Operating rating:	42.9 tons [39.0 metric tons]
Inventory rating:	26.0 tons [23.6 metric tons]
Sufficiency rating:	60.9
Recommended work:	Widening of existing bridge or other major structure without deck rehabilitation or replacement [33]
Estimated cost of work:	\$373,000

## Previous Inspections

Date	Suff. Rating	Condition	Deck	Superstructure	Substructure	SD/FO	ADT
------	--------------	-----------	------	----------------	--------------	-------	-----

August 2016	60.9	Fair	Satisfactory	Good	Good	FO	1059
August 2014	60.9	Fair	Satisfactory	Good	Good	FO	1059
August 2012	63.7	Fair	Satisfactory	Good	Good	FO	830
September 2010	63.7	Fair	Satisfactory	Good	Good	FO	830
September 2008	63.7	Fair	Satisfactory	Good	Good	FO	830
August 2006	79.1	Fair	Satisfactory	Good	Good	FO	315
September 2004	79.1	Fair	Satisfactory	Good	Good	FO	315
August 2000	77.9	Fair	Satisfactory	Good	Good	FO	300
October 1998	77.9	Fair	Satisfactory	Good	Good	FO	300
July 1996	78.6	Fair	Satisfactory	Good	Good	-	340
September 1994	71.0	Fair	Satisfactory	Very Good	Good	FO	340
August 1992	79.8	Fair	Satisfactory	Very Good	Good	FO	340
August 1990	80.0	Fair	Satisfactory	Good	Good	FO	320

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