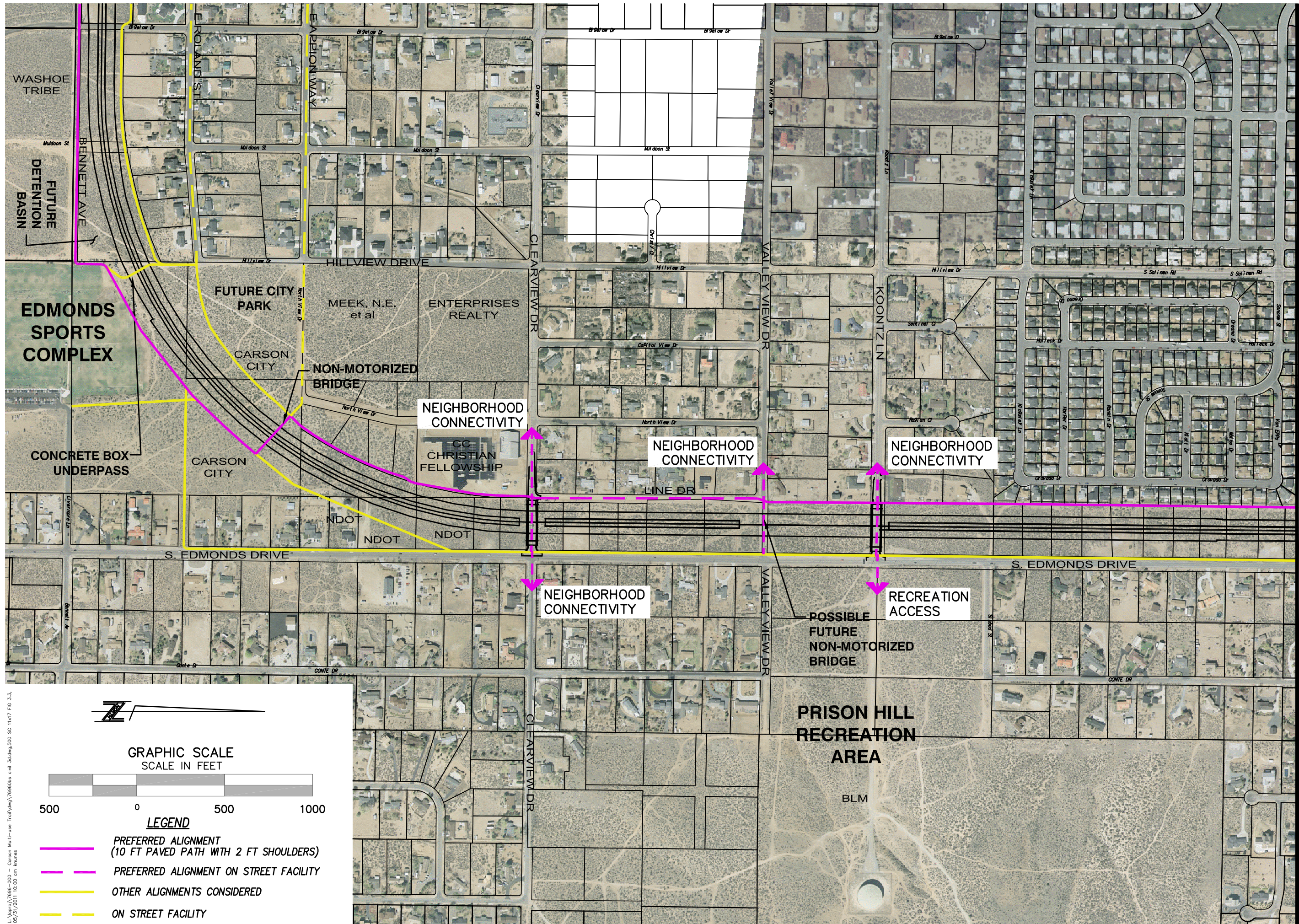


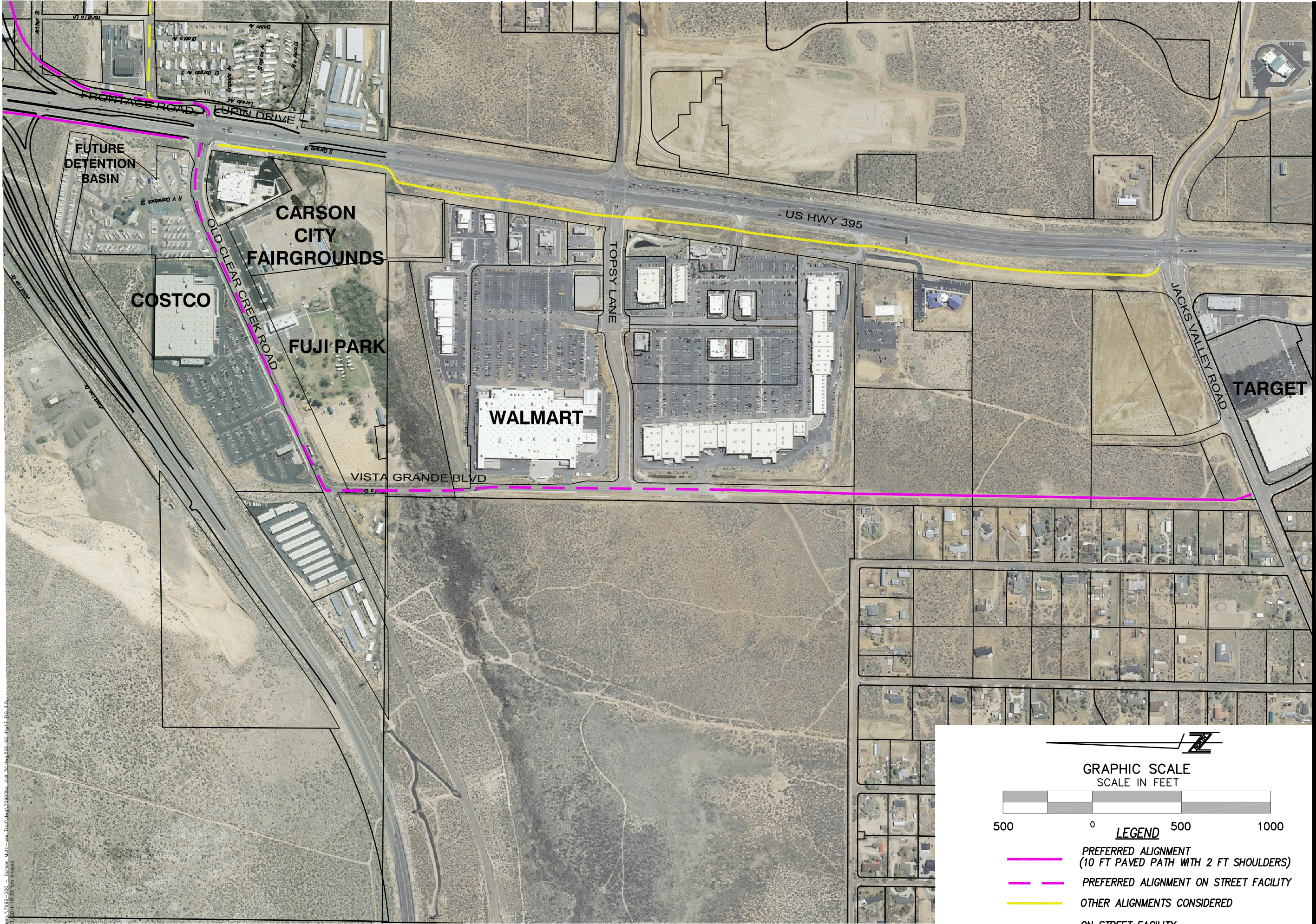
CARSON CITY FREEWAY CORRIDOR MULTI-USE PATH
ALIGNMENT ALTERNATIVES STUDY
ALIGNMENT ALTERNATIVES

[illegible]

FIGURE 3.3

DATE: APRIL 2011
DRAWN BY: KLN
DESIGNED BY: CLM
CHECKED BY: CLM
JOB NO.: 7696.000





L:\Vegon\7696-000 - Carson Multi-use Trail\data\769600ba.civil_3d.dwg,500 - SC 11x17 FIG. 3.5
06/20/2011 10:55 am WJW



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CARSON AREA METROPOLITAN PLANNING ORGANIZATION

CARSON CITY FREEWAY CORRIDOR MULTI-USE PATH
ALIGNMENT ALTERNATIVES STUDY
ALIGNMENT ALTERNATIVES

CARSON CITY

NEVADA

REV	DATE	DESCRIPTION	BY

FIGURE 3.5

DATE: MAY 2011
DRAWN BY: KLN
DESIGNED BY: CLM
CHECKED BY: CLM
JOB NO.: 7696.000

APPENDIX A

PHASE 1 PRELIMINARY CONSTRUCTION COST ESTIMATE

CARSON AREA METROPOLITAN PLANNING ORGANIZATION
CARSON FREEWAY CORRIDOR MULTI-USE PATH
PRELIMINARY ENGINEER'S COST ESTIMATE

JN: 7696
DATE: 6/1/2011
BY: CLM

Phase 1A - Hwy 50 to Existing Linear Park Path (Bridge Option)

Item No.	Item Description	Units	Estimated Quantity	Unit Price	Amount
1	Temporary Erosion Control ⁽¹⁾	LF	5,300	15	79,500
2	Typical Path Section (14-ft wide) ⁽²⁾	LF	4,910	100	491,000
3	130' L x 12' W Prefabricated Bridge at Kings Canyon Drainage ⁽³⁾	EA	3	250,000	750,000
4	Five Strand Barbed Wire Fence ⁽⁴⁾	LF	3,400	20	68,000
5	Cattle Gates ⁽⁵⁾	EA	2	2,000	4,000
6	12-inch Storm Drain Culverts ⁽⁶⁾	LF	60	50	3,000
7	36-inch Storm Drain Culvert ⁽⁷⁾	LF	20	100	2,000
SUBTOTAL (ROUNDED)					1,398,000
15% CONTINGENCY (ROUNDED)					210,000
ENGINEERING (17%) (ROUNDED)					238,000
TOTAL (ROUNDED)					1,846,000

NOTES:

- 1 Assumes fiber rolls or silt fence on downhill side and orange constr. fence on uphill side. Includes SWPPP.
- 2 Path costs include 3" AC on 6" AB, earthwork, clear & grub, revegetation. See breakdown below.
- 3 Bridge assumed to be HS-10 loading, golf-course type truss bridge. Includes abutments, wingwalls, and piers.
Three are required to span the Kings Canyon Creek Drainage. This is a worst case scenario for cost estimating purposes. It may be possible to construct a trail just above existing grade with a series of low flow culverts that would be considerably cheaper. However detailed engineering analysis is required to determine the impact on the 100-year flood water surface elevations. Estimated construction cost of this alternative is shown on the following page.
- 4 Fence would be between path and areas where the Lompa Family runs cattle.
- 5 These would be similar to the gates on the existing Linear Park Path and would allow cattle to cross the path at the southeast corner of the water quality basin without getting onto the path.
- 6 At three minor drainage/irrigation ditches on the east side of the freeway.
- 7 At the one major drainage ditch that drains to the water quality basin.
- 8 Cost estimate is based on a conceptual alignment and not on engineered plans and does not include cost of easement acquisition from private property owners.
- 9 Mobilization and demobilization costs are included in other items of work.

ESTIMATED PATH QUANTITIES AND COSTS	Quant. per LF	Unit	Unit Cost	Cost/LF
3" AC	10	SF	3	\$30.0
6" AB	1.6	SY	14	\$22.4
Clear & Grub ⁽¹⁾	2.2	SY	6	\$13.2
Earthwork ⁽²⁾	0.2	CY	50	\$10.0
Revegetation ⁽³⁾	1	SY	6	\$6.0
Miscellaneous ⁽⁴⁾	1	LF	5	\$5.0
TOTAL COST/LF				\$86.6
USE				\$100

NOTES:

- 1 Based on 20' wide disturbance = 2.2 SY/LF, plus temporary access and staging areas.
- 2 Earthwork includes all grading required to construct finished path. A cut and fill balance assumed.
- 3 Revegetation includes all work to prepare, seed and mulch all disturbed surfaces.
- 4 Includes path striping and signing, access control bollards.

**CARSON AREA METROPOLITAN PLANNING ORGANIZATION
CARSON FREEWAY CORRIDOR MULTI-USE PATH
PRELIMINARY ENGINEER'S COST ESTIMATE**

JN: 7696
DATE: 6/1/2011
BY: CLM

Phase 1A - Hwy 50 to Existing Linear Park Path

Estimated cost of replacing Kings Canyon Creek bridge with low level crossing

Item Description	Units	Estimated Quantity	Unit Price	Amount
Typical Path Section (14-ft wide)	LF	290	100	29,000
12-inch Storm Drain Culverts	LF	400	50	20,000
Rock Rip Rap Slope Protection (12 inches thick)	SF	2,400	15	36,000
Filter Fabric	SF	5,000	1	5,000
Galvanized Pipe Fence at either end of crossing	LF	200	25	5,000
Miscellaneous	LS	1	5,000	5,000
SUBTOTAL (ROUNDED)				100,000
15% CONTINGENCY (ROUNDED)				15,000
ENGINEERING (17%) (ROUNDED)				17,000
LOW LEVEL CROSSING TOTAL (ROUNDED)				132,000
PHASE 1A TOTAL (ROUNDED)				987,000

Estimated cost of alternative route on Butti Way instead of Kings Canyon Creek Crossing

Item Description	Units	Estimated Quantity	Unit Price	Amount
Typical Path Section (14-ft wide)	LF	1,730	100	173,000
Move Butti Road to the east by 6 ft. (4" AC + 8" AB) ⁽¹⁾	SF	2,750	6	16,500
Concrete Barrier Rail ⁽²⁾	LF	150	40	6,000
Impact Attenuators ⁽³⁾	EA	2	4,000	8,000
Reconstruct Driveway to WWTP	LS	1	12,000	12,000
Miscellaneous	LS	1	5,000	5,000
SUBTOTAL (ROUNDED)				221,000
15% CONTINGENCY (ROUNDED)				33,000
ENGINEERING (17%) (ROUNDED)				38,000
BUTTI WAY TOTAL (ROUNDED)				292,000
PHASE 1A TOTAL (ROUNDED)				1,147,000

NOTES:

1. Assumes 6 feet of widening on east side, 1 ft. sawcut of existing AC, and 300 ft. tapers (50:1)
2. Barrier rail separates path from road where path is immediately adjacent to road.
3. Impact attenuators on either end of barrier rail.

CARSON AREA METROPOLITAN PLANNING ORGANIZATION
CARSON FREEWAY CORRIDOR MULTI-USE PATH
PRELIMINARY ENGINEER'S COST ESTIMATE

JN: 7696
DATE: 6/1/2011
BY: CLM

Phase 1B - Northridge Drive to Hwy 50

Item No.	Item Description	Units	Estimated Quantity	Unit Price	Amount
1	Temporary Erosion Control ⁽¹⁾	LF	2,200	15	33,000
2	Typical Path Section (14-ft wide) ⁽²⁾	LF	1,900	100	190,000
3	12-ft. Wide Sidewalk on Northridge Dr. ⁽³⁾	LF	300	70	21,000
4	4-ft. Retaining Wall at Freeway Slope Paving ⁽⁴⁾	LF	230	220	50,600
5	Relocate Existing NDOT Control of Access Fence ⁽⁵⁾	LF	600	30	18,000
6	Curb and Gutter ⁽⁶⁾	LF	15	960	14,400
7	Relocate Powerpole ⁽⁷⁾	EA	1	10,000	10,000
8	Relocate Electric Meter ⁽⁷⁾	EA	1	4,000	4,000
9	Restripe Lompa Lane ⁽⁸⁾	LS	1	2,000	2,000
10	Path Transitions at Driveways ⁽⁹⁾	EA	2	4,000	8,000
11	Traffic Control	LS	1	30,000	30,000
SUBTOTAL (ROUNDED)					381,000
15% CONTINGENCY (ROUNDED)					57,000
ENGINEERING (17%) (ROUNDED)					65,000
TOTAL (ROUNDED)					503,000

NOTES:

- 1 Assumes fiber rolls or silt fence on downhill side and orange constr. fence on uphill side. Includes SWPPP.
- 2 Path costs include 3" AC on 6" AB, earthwork, clear & grub, revegetation. See breakdown below.
- 3 Extends from Russell Way to North Lompa Lane. Assumes existing sidewalk is removed and replaced.
- 4 Assumes a reinforced concrete wall. Includes demolition of existing slope paving.
- 5 On Lompa Lane from Northridge Drive south for 400 ft. and north for 200 ft. from box culvert access.
- 6 On the west side of Lompa Lane where it does not currently exist.
- 7 At corner of Northridge Drive and Russell Way.
- 8 Between NDOT access to box culvert and entrance to Carson Royale MHP.
- 9 At the two driveways to the RIDL, Inc. property.
- 10 Cost estimate is based on a conceptual alignment and not on engineered plans and does not include cost of easement acquisition from private property owners.
- 11 Mobilization and demobilization costs are included in other items of work.

ESTIMATED PATH QUANTITIES AND COSTS	Quant. per LF	Unit	Unit Cost	Cost/LF
3" AC	10	SF	3	\$30.0
6" AB	1.6	SY	14	\$22.4
Clear & Grub ⁽¹⁾	2.2	SY	6	\$13.2
Earthwork ⁽²⁾	0.2	CY	50	\$10.0
Revegetation ⁽³⁾	1	SY	6	\$6.0
Miscellaneous ⁽⁴⁾	1	LF	5	\$5.0
TOTAL COST/LF				\$86.6
USE				\$100

NOTES:

- 1 Based on 20' wide disturbance = 2.2 SY/LF, plus temporary access and staging areas
- 2 Earthwork includes all grading required to construct finished path. A cut and fill balance assumed.
- 3 Revegetation includes all work to prepare, seed and mulch all disturbed surfaces.
- 4 Includes path striping and signing, access control bollards.