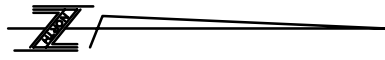
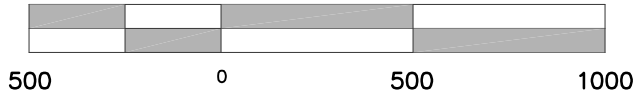


L:\Vero\7696-000 - Carson Multi-use Trail\Draw\769600ba.civil_3d.dwg,500 SC 11x17 FIG 3.3, 05/31/2011 10:00 am Klonies



GRAPHIC SCALE
SCALE IN FEET



LEGEND

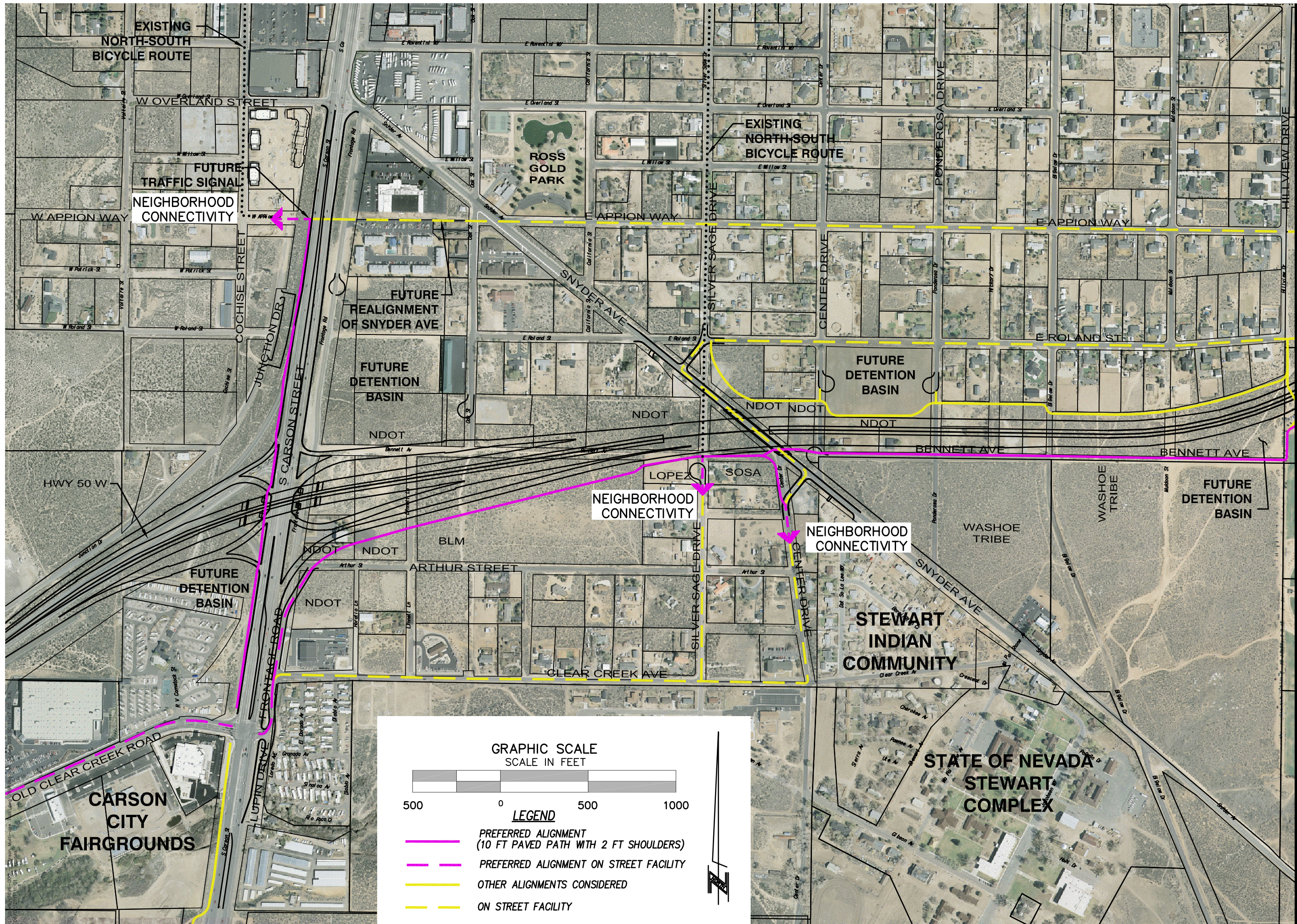
- PREFERRED ALIGNMENT
(10 FT PAVED PATH WITH 2 FT SHOULDERS)
- - - PREFERRED ALIGNMENT ON STREET FACILITY
- OTHER ALIGNMENTS CONSIDERED
- - - ON STREET FACILITY

CARSON AREA METROPOLITAN PLANNING ORGANIZATION
**CARSON CITY FREEWAY CORRIDOR MULTI-USE PATH
ALIGNMENT ALTERNATIVES STUDY
ALIGNMENT ALTERNATIVES**
NEVADA
CARSON CITY

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
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FIGURE 3.3

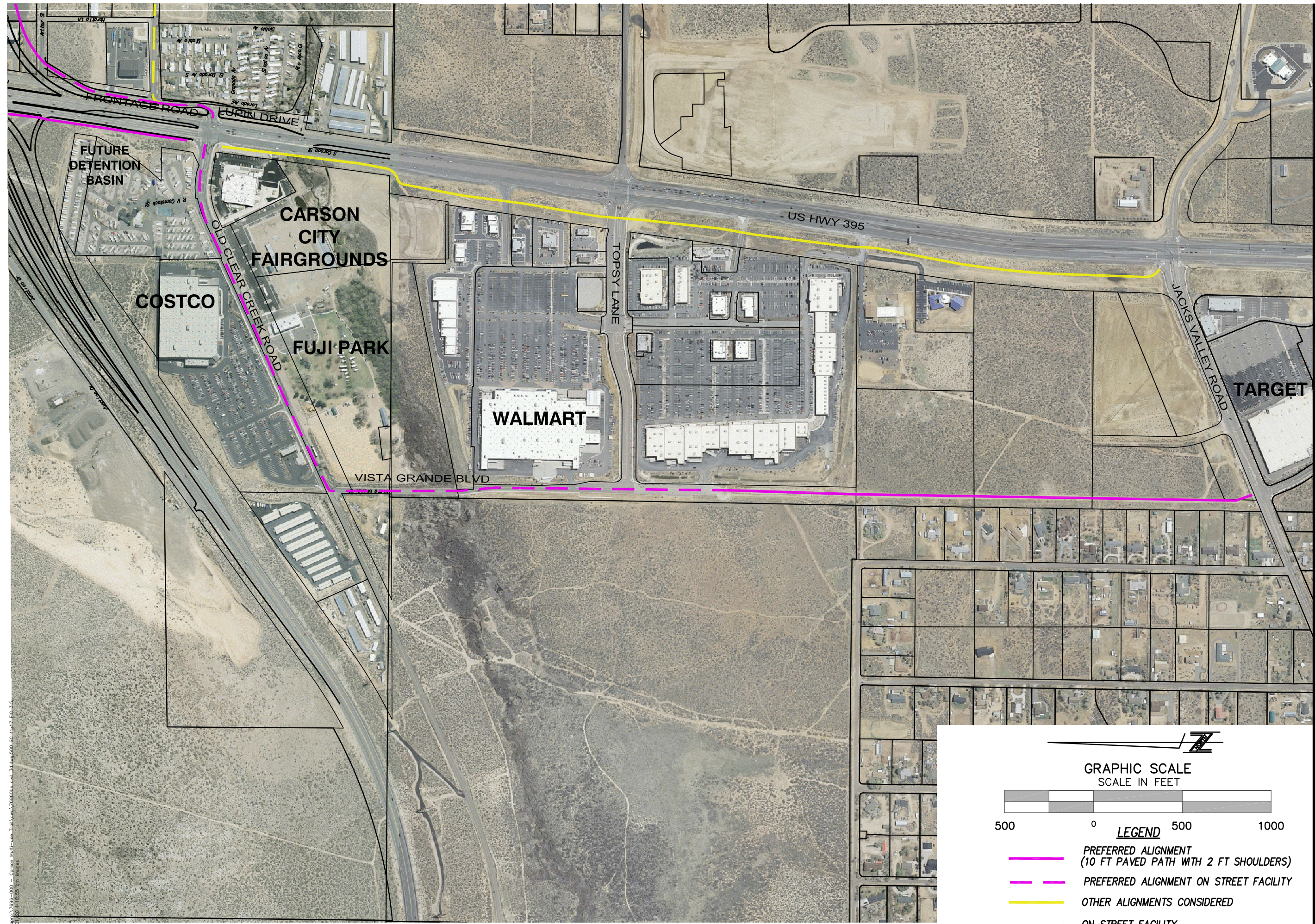
DATE: APRIL 2011
DRAWN BY: KLN
DESIGNED BY: CLM
CHECKED BY: CLM
JOB NO.: 7696.000



CARSON AREA METROPOLITAN PLANNING ORGANIZATION
CARSON CITY FREEWAY CORRIDOR MULTI-USE PATH
ALIGNMENT ALTERNATIVES STUDY
ALIGNMENT ALTERNATIVES
NEVADA
CARSON CITY

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FIGURE 3.4



L:\projects\7696-000 - Carson_Multi-Use_Trail\Drawings\666666.dwg, 3d.dwg, 500 - 11x17 - FIG. 3.5
 06/20/2011 10:55 am khm/jef

CARSON AREA METROPOLITAN PLANNING ORGANIZATION
**CARSON CITY FREEWAY CORRIDOR MULTI-USE PATH
 ALIGNMENT ALTERNATIVES STUDY**
 ALIGNMENT ALTERNATIVES

| REV | DATE | DESCRIPTION |
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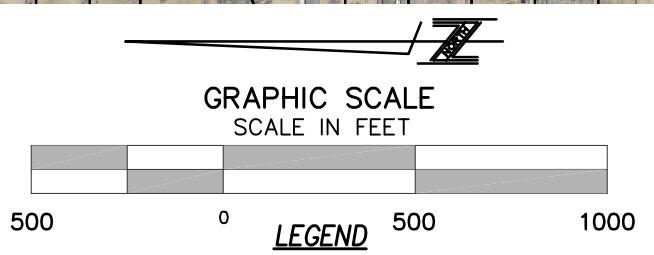


FIGURE 3.5

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. | Unit | Unit Cost | Cost/LF |
|-------------------------------------|--------|------|-----------|---------------|
| | per 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.