

APPENDIX R
“NO PLANT” SCENARIO ANALYSIS

INTRODUCTION

This addendum to the traffic study has been prepared to provide additional analysis requested by the City of Highland that is outside the scope of CEQA requirements for a traffic study. Specifically, this addendum has recalculated project contribution to new traffic volumes and revised fair-share costs based on a method provided by the City of Highland. Additionally, the addendum has analyzed impacts of truck traffic on Highland streets within the vicinity of the project.

PROJECT CONTRIBUTION TO TOTAL NEW VOLUMES

The contribution of project traffic to total new traffic was recalculated for all study area intersections for Land Use Alternatives 1 and 2 using the method requested by the City of Highland. This method calculates a hypothetical existing “no plant” peak hour traffic volume, which was developed in the process of obtaining opening year volumes. The 2004 “no plant” volumes are illustrated in Figure 6 of the traffic study. The project percentage contribution to existing “no plant” volumes are then calculated by dividing total existing and new peak hour quarry trips at each study area intersection by the increase in total traffic over existing “no plant” conditions.

No contribution was calculated for background (Alternatives 3 and 4) conditions because the project trips are unchanged from the existing conditions. The project contributions have been calculated based on both a.m. and p.m. peak hour volumes, with the higher of the two listed as the worst case for each intersection. Tables R.A, R.B, and R.C summarize the project contributions to study area intersections for Alternative 1 under Access Alternatives A, B, and D, respectively. Table R.D summarizes the project contributions to study area intersections under Alternative 2. (Note: All tables and figures are at the end of this appendix.)

COST ESTIMATES

Cost estimates have been developed for the circulation improvements recommended for year 2008 and year 2030. The detailed cost estimate calculations are included in Appendix R-1.

The year 2008 intersection improvement costs for Land Use Alternative 2 using Access Alternative C are \$253,750. Year 2008 cost estimates are provided for informational purposes only; project contributions to improvement costs are based on year 2030 improvement cost estimates.

The year 2030 improvement costs and project contributions are as follows:

- Land Use Alternative 1, Access Alternative A – The improvement costs at study area intersections under this alternative are \$2,247,370, including the signalization of the Robertson’s/Cemex driveways on Alabama Street. The project’s fair-share contribution to intersection improvements is \$341,396, which includes \$130,500 for the signalization of the Robertson’s/Cemex Driveways on Alabama Street and \$210,896 for all other off-site improvements. These calculations do not consider the cost of building the truck access road on Fifth Street, which will be paid for by the mining companies.
- Land Use Alternative 1, Access Alternative B – The improvement costs at study area intersections under this alternative are \$2,251,430, including the signalization of the

Robertson's/Cemex driveways on Alabama Street. The project's fair-share contribution to intersection improvements is \$384,087, which includes \$130,500 for the signalization of Robertson's/Cemex driveways on Alabama Street and \$253,587 for all other improvements.

- Land Use Alternative 1, Access Alternative D – The improvement costs at study area intersections under this alternative are \$2,251,430, including the signalization of the Robertson's/Cemex driveways on Alabama Street. The project's fair-share contribution to intersection improvements is \$343,726, which includes \$130,500 for the signalization of Robertson's/Cemex driveways on Alabama Street and \$213,226 for all other improvements.
- Land Use Alternative 2 – The improvement costs at study area intersections under this alternative are \$2,247,370 including the signalization of the Robertson's/Cemex driveways on Alabama Street. The project's fair-share contribution to intersection improvements is \$446,449, which includes \$130,500 for the signalization of the Robertson's/Cemex Driveways on Alabama Street and \$315,949 for all other off-site improvements. These calculations do not consider the cost of building the truck access road on Fifth Street, which will be paid for by the mining companies.

The year 2030 improvement costs and project contributions to these improvements are summarized in Table R.E. The unit costs are based on standard preliminary construction cost estimates for CMP improvements. The cost estimates include unit costs for pavement striping and signing changes. These cost estimates do not include preliminary engineering or right-of-way acquisition and are intended solely for the purpose of discussion with local jurisdictions. They do not imply any legal responsibility or formula for contributions to mitigation.

**Table R.A - Project Contribution to Total New Traffic
Land Use Alternative 1, Access Alternative A**

| Intersection | A.M. Peak Hour | | | | | P.M. Peak Hour | | | | | Worst Case |
|---------------------------------------|-----------------------|-------|--------------|---------------|-----------|-----------------------|-------|--------------|---------------|-----------|------------|
| | Total Approach Volume | | Total Growth | Project Trips | Project % | Total Approach Volume | | Total Growth | Project Trips | Project % | |
| | 2004 "No Plant" | 2030 | | | | 2004 "No Plant" | 2030 | | | | |
| 1 . Palm Avenue/5th Street | 1,996 | 4,574 | 2,578 | 188 | 7.3% | 2,386 | 5,303 | 2,917 | 69 | 2.4% | 7.3% |
| 2 . Palm Avenue/3rd Street | 1,085 | 3,610 | 2,525 | 200 | 7.9% | 1,638 | 4,591 | 2,953 | 76 | 2.6% | 7.9% |
| 3 . Alabama Street/Robertson's Access | 625 | 2,652 | 2,027 | 210 | 10.4% | 1,015 | 3,411 | 2,396 | 79 | 3.3% | 10.4% |
| 4 . Alabama Street/Cemex Access | 625 | 2,607 | 1,982 | 165 | 8.3% | 1,015 | 3,392 | 2,377 | 60 | 2.5% | 8.3% |
| 5 . Church Avenue/5th Street | 1,638 | 3,361 | 1,723 | 144 | 8.4% | 1,837 | 3,673 | 1,836 | 48 | 2.6% | 8.4% |
| 7 . SR-30 SB Ramps/5th Street | 2,319 | 4,307 | 1,988 | 331 | 16.6% | 2,250 | 4,269 | 2,019 | 131 | 6.5% | 16.6% |
| 8 . SR-30 NB Ramps/5th Street | 2,213 | 3,722 | 1,509 | 188 | 12.5% | 2,360 | 4,114 | 1,754 | 67 | 3.8% | 12.5% |
| 9 . Boulder Avenue/5th Street | 2,029 | 3,962 | 1,933 | 28 | 1.4% | 2,281 | 4,626 | 2,345 | 6 | 0.3% | 1.4% |
| 10 . Orange Street/Cemex Access | 1,018 | 2,682 | 1,664 | 242 | 14.5% | 1,475 | 3,696 | 2,221 | 46 | 2.1% | 14.5% |

**Table R.B - Project Contribution to Total New Traffic
Land Use Alternative 1, Access Alternative B**

| Intersection | A.M. Peak Hour | | | | | P.M. Peak Hour | | | | | Worst Case |
|---------------------------------------|-----------------------|-------|--------------|---------------|-----------|-----------------------|-------|--------------|---------------|-----------|------------|
| | Total Approach Volume | | Total Growth | Project Trips | Project % | Total Approach Volume | | Total Growth | Project Trips | Project % | |
| | 2004 "No Plant" | 2030 | | | | 2004 "No Plant" | 2030 | | | | |
| 1 . Palm Avenue/5th Street | 1,996 | 4,234 | 2,238 | 211 | 9.4% | 2,386 | 3,916 | 1,530 | 82 | 5.4% | 9.4% |
| 2 . Palm Avenue/3rd Street | 1,085 | 3,790 | 2,705 | 380 | 14.0% | 1,638 | 4,674 | 3,036 | 150 | 4.9% | 14.0% |
| 3 . Alabama Street/Robertson's Access | 625 | 2,832 | 2,207 | 390 | 17.7% | 1,015 | 3,494 | 2,479 | 153 | 6.2% | 17.7% |
| 4 . Alabama Street/Cemex Access | 625 | 2,703 | 2,078 | 261 | 12.6% | 1,015 | 3,415 | 2,400 | 74 | 3.1% | 12.6% |
| 5 . Church Avenue/5th Street | 1,638 | 3,541 | 1,903 | 324 | 17.0% | 1,837 | 3,756 | 1,919 | 123 | 6.4% | 17.0% |
| 7 . SR-30 SB Ramps/5th Street | 2,319 | 4,307 | 1,988 | 331 | 16.6% | 2,250 | 4,269 | 2,019 | 123 | 6.1% | 16.6% |
| 8 . SR-30 NB Ramps/5th Street | 2,213 | 3,722 | 1,509 | 188 | 12.5% | 2,360 | 4,114 | 1,754 | 62 | 3.5% | 12.5% |
| 9 . Boulder Avenue/5th Street | 2,029 | 3,962 | 1,933 | 28 | 1.4% | 2,281 | 4,626 | 2,345 | 6 | 0.3% | 1.4% |
| 10 . Orange Street/Cemex Access | 1,018 | 2,682 | 1,664 | 242 | 14.5% | 1,475 | 3,696 | 2,221 | 37 | 1.7% | 14.5% |

**Table R.C - Project Contribution to Total New Traffic
Land Use Alternative 1, Access Alternative D**

| Intersection | A.M. Peak Hour | | | | | P.M. Peak Hour | | | | | Worst Case |
|---------------------------------------|-----------------------|-------|--------------|---------------|-----------|-----------------------|-------|--------------|---------------|-----------|------------|
| | Total Approach Volume | | Total Growth | Project Trips | Project % | Total Approach Volume | | Total Growth | Project Trips | Project % | |
| | 2004 "No Plant" | 2030 | | | | 2004 "No Plant" | 2030 | | | | |
| 1 . Palm Avenue/5th Street | 1,996 | 4,147 | 2,151 | 124 | 5.8% | 2,386 | 3,863 | 1,477 | 35 | 2.4% | 5.8% |
| 2 . Palm Avenue/3rd Street | 1,085 | 3,633 | 2,548 | 223 | 8.8% | 1,638 | 4,601 | 2,963 | 86 | 2.9% | 8.8% |
| 3 . Alabama Street/Robertson's Access | 625 | 2,675 | 2,050 | 233 | 11.4% | 1,015 | 3,421 | 2,406 | 89 | 3.7% | 11.4% |
| 4 . Alabama Street/Cemex Access | 625 | 2,615 | 1,990 | 173 | 8.7% | 1,015 | 3,396 | 2,381 | 64 | 2.7% | 8.7% |
| 5 . Church Avenue/5th Street | 1,638 | 3,384 | 1,746 | 167 | 9.6% | 1,837 | 3,683 | 1,846 | 58 | 3.1% | 9.6% |
| 7 . SR-30 SB Ramps/5th Street | 2,319 | 4,307 | 1,988 | 331 | 16.6% | 2,250 | 4,269 | 2,019 | 131 | 6.5% | 16.6% |
| 8 . SR-30 NB Ramps/5th Street | 2,213 | 3,722 | 1,509 | 188 | 12.5% | 2,360 | 4,114 | 1,754 | 67 | 3.8% | 12.5% |
| 9 . Boulder Avenue/5th Street | 2,029 | 3,962 | 1,933 | 28 | 1.4% | 2,281 | 4,625 | 2,344 | 5 | 0.2% | 1.4% |
| 10 . Orange Street/Cemex Access | 1,018 | 2,682 | 1,664 | 242 | 14.5% | 1,475 | 3,696 | 2,221 | 46 | 2.1% | 14.5% |

**Table R.D - Project Contribution to Total New Traffic
Land Use Alternative 2, Access Alternative C**

| Method 2 (City of Highland) Intersection | A.M. Peak Hour | | | | | P.M. Peak Hour | | | | | Worst Case |
|---|-----------------------|-------|-----------------|------------------|--------------|-----------------------|-------|-----------------|------------------|--------------|---------------|
| | Total Approach Volume | | Total Growth | Project Trips | Project % | Total Approach Volume | | Total Growth | Project Trips | Project % | |
| | 2004 "No Plant" | 2030 | | | | 2004 "No Plant" | 2030 | | | | |
| 1 . Palm Avenue/5th Street | 1,996 | 4,667 | 2,671 | 281 | 10.5% | 2,386 | 5,365 | 2,979 | 131 | 4.4% | 10.5% |
| 2 . Palm Avenue/3rd Street | 1,085 | 3,687 | 2,602 | 277 | 10.6% | 1,638 | 4,650 | 3,012 | 135 | 4.5% | 10.6% |
| 3 . Alabama Street/Robertson's Access | 625 | 2,729 | 2,104 | 287 | 13.6% | 1,015 | 3,470 | 2,455 | 138 | 5.6% | 13.6% |
| 4 . Alabama Street/Cemex Access | 625 | 2,600 | 1,975 | 158 | 8.0% | 1,015 | 3,391 | 2,376 | 59 | 2.5% | 8.0% |
| 5 . Church Avenue/5th Street | 1,638 | 3,461 | 1,823 | 244 | 13.4% | 1,837 | 3,736 | 1,899 | 111 | 5.8% | 13.4% |
| 7 . SR-30 SB Ramps/5th Street | 2,319 | 4,304 | 1,985 | 328 | 16.5% | 2,250 | 4,268 | 2,018 | 130 | 6.4% | 16.5% |
| 8 . SR-30 NB Ramps/5th Street | 2,213 | 3,849 | 1,636 | 315 | 19.3% | 2,360 | 4,142 | 1,782 | 95 | 5.3% | 19.3% |
| 9 . Boulder Avenue/5th Street | 2,029 | 4,150 | 2,121 | 216 | 10.2% | 2,281 | 4,667 | 2,386 | 47 | 2.0% | 10.2% |
| 10 . Orange Street/Cemex Access | 1,018 | 2,772 | 1,754 | 332 | 18.9% | 1,475 | 3,714 | 2,239 | 64 | 2.9% | 18.9% |

Table R.E - Project Contributions to Year 2030 Circulation Improvement Costs**Land Use Alternative 1, Access Alternative A**

| Intersection | Total Cost | Fair-Share Percent | Fair-Share Contribution |
|--|--------------------|---------------------------|--------------------------------|
| Palm Avenue/5th Street | \$314,070 | 7.3% | \$22,903 |
| Palm Avenue/3rd Street | \$266,800 | 7.9% | \$21,133 |
| Alabama Street/Robertson's-Cemex Access Signalization* | \$130,500 | 100.0% | \$130,500 |
| Alabama Street/Robertson's-Cemex Access* | \$170,810 | 10.4% | \$17,696 |
| SR-30 Southbound Ramps/5th Street | \$140,800 | 16.6% | \$23,443 |
| SR-30 Northbound Ramps/5th Street | \$648,300 | 12.5% | \$80,769 |
| Boulder Avenue/5th Street | \$296,530 | 1.4% | \$4,295 |
| Orange Street/Cemex Access | \$279,560 | 14.5% | \$40,657 |
| Total Intersection Improvements | \$2,247,370 | | \$341,396 |

*Due to the short distance between the driveways, the driveways will have to be combined in order to signalize the intersection.

Land Use Alternative 1, Access Alternative B

| Intersection | Total Cost | Fair-Share Percent | Fair-Share Contribution |
|--|--------------------|---------------------------|--------------------------------|
| Palm Avenue/5th Street | \$253,750 | 9.4% | \$23,924 |
| Palm Avenue/3rd Street | \$203,870 | 14.0% | \$28,640 |
| Alabama Street/Robertson's-Cemex Access Signalization* | \$130,500 | 100.0% | \$130,500 |
| Alabama Street/Robertson's-Cemex Access* | \$170,810 | 17.7% | \$30,184 |
| Church Avenue/Fifth Street | \$127,310 | 17.0% | \$21,675 |
| SR-30 Southbound Ramps/5th Street | \$140,800 | 16.6% | \$23,443 |
| SR-30 Northbound Ramps/5th Street | \$648,300 | 12.5% | \$80,769 |
| Boulder Avenue/5th Street | \$296,530 | 1.4% | \$4,295 |
| Orange Street/Cemex Access | \$279,560 | 14.5% | \$40,657 |
| Total Intersection Improvements | \$2,251,430 | | \$384,087 |

*Due to the short distance between the driveways, the driveways will have to be combined in order to signalize the intersection.

Land Use Alternative 1, Access Alternative D

| Intersection | Total Cost | Fair-Share Percent | Fair-Share Contribution |
|--|--------------------|---------------------------|--------------------------------|
| Palm Avenue/5th Street | \$253,750 | 5.8% | \$14,628 |
| Palm Avenue/3rd Street | \$203,870 | 8.8% | \$17,843 |
| Alabama Street/Robertson's-Cemex Access Signalization* | \$130,500 | 100.0% | \$130,500 |
| Alabama Street/Robertson's-Cemex Access* | \$170,810 | 11.4% | \$19,414 |
| Church Avenue/Fifth Street | \$127,310 | 9.6% | \$12,177 |
| SR-30 Southbound Ramps/5th Street | \$140,800 | 16.6% | \$23,443 |
| SR-30 Northbound Ramps/5th Street | \$648,300 | 12.5% | \$80,769 |
| Boulder Avenue/5th Street | \$296,530 | 1.4% | \$4,295 |
| Orange Street/Cemex Access | \$279,560 | 14.5% | \$40,657 |
| Total Intersection Improvements | \$2,251,430 | | \$343,726 |

*Due to the short distance between the driveways, the driveways will have to be combined in order to signalize the intersection.

Land Use Alternative 2, Access Alternative C

| Intersection | Total Cost | Fair-Share Percent | Fair-Share Contribution |
|--|--------------------|---------------------------|--------------------------------|
| Palm Avenue/5th Street | \$314,070 | 10.5% | \$33,041 |
| Palm Avenue/3rd Street | \$266,800 | 10.6% | \$28,403 |
| Alabama Street/Robertson's-Cemex Access Signalization* | \$130,500 | 100.0% | \$130,500 |
| Alabama Street/Robertson's-Cemex Access* | \$170,810 | 13.6% | \$23,300 |
| SR-30 Southbound Ramps/5th Street | \$140,800 | 16.5% | \$23,266 |
| SR-30 Northbound Ramps/5th Street | \$648,300 | 19.3% | \$124,825 |
| Boulder Avenue/5th Street | \$296,530 | 10.2% | \$30,198 |
| Orange Street/Cemex Access | \$279,560 | 18.9% | \$52,916 |
| Total Intersection Improvements | \$2,247,370 | | \$446,449 |

*Due to the short distance between the driveways, the driveways will have to be combined in order to signalize the intersection.

APPENDIX R-1: COST ESTIMATE CALCULATIONS

Table R-1a
Year 2030 Off-Site Intersection Improvement Cost Estimates
Land Use Alternative 1, Access Alternative A

Intersection: Palm Avenue/5th Street

Improvements: Add a westbound left turn lane and two northbound right turn lanes with right turn overlap phasing.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|-------|-------------|----------------|------------|--------------|------------|
| Roadway widening | NBR | 500 ft.(x2) | \$180,000/mile | \$34,100 | | |
| Curb and Gutter | NBR | 500 LF | \$15/LF | \$7,500 | | |
| Add left turn lane | WBL | 1 | \$50,000/each | \$50,000 | | |
| (Add left turn lane) | (EBL) | 1 | \$50,000/each | \$50,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$216,600 | | |
| Minor Items/Supplemental Work | | | 10% | \$21,660 | | |
| Mobilization | | | 10% | \$21,660 | | |
| Contingencies | | | 25% | \$54,150 | | |
| Total | | | | \$314,070 | 7.3% | \$22,903 |

Intersection: Palm Avenue/3rd Street

Improvements: Add an eastbound left-turn lane and a northbound through lane. Widen the east leg departure by one lane to preserve proper alignment of the eastbound through lane.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | NBT | 600 ft. | \$180,000/mile | \$20,500 | | |
| Curb and Gutter | NBT | 600 LF | \$15/LF | \$9,000 | | |
| Roadway widening | EBT | 600 ft. | \$180,000/mile | \$20,500 | | |
| Curb and Gutter | EBT | 600 LF | \$15/LF | \$9,000 | | |
| Add left turn lane | EBL | 1 | \$50,000/each | \$50,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$184,000 | | |
| Minor Items/Supplemental Work | | | 10% | \$18,400 | | |
| Mobilization | | | 10% | \$18,400 | | |
| Contingencies | | | 25% | \$46,000 | | |
| Total | | | | \$266,800 | 7.9% | \$21,133 |

Intersection: Alabama Street/Robertson's Access-Cemex Access (driveways combined for signalization due to proximity)

Improvements: Install a traffic signal.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|-------|---------------|------------|--------------|------------|
| Install new traffic signal | | -- | \$90,000/each | \$90,000 | | |
| Subtotal | | | | \$90,000 | | |
| Minor Items/Supplemental Work | | | 10% | \$9,000 | | |
| Mobilization | | | 10% | \$9,000 | | |
| Contingencies | | | 25% | \$22,500 | | |
| Total | | | | \$130,500 | 100.0% | \$130,500 |

Table R-1a
Year 2030 Off-Site Intersection Improvement Cost Estimates
Land Use Alternative 1, Access Alternative A

Intersection: Alabama Street/Robertson's Access-Cemex Access (driveways combined for signalization due to proximity)
Improvements: Add a northbound through lane and a southbound through lane.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|----------|----------------|------------|--------------|------------|
| Roadway widening | NBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | NBT | 1200 LF | \$15/LF | \$18,000 | | |
| Roadway widening | SBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | SBT | 1200 LF | \$15/LF | \$18,000 | | |
| Subtotal | | | | \$117,800 | | |
| Minor Items/Supplemental Work | | | 10% | \$11,780 | | |
| Mobilization | | | 10% | \$11,780 | | |
| Contingencies | | | 25% | \$29,450 | | |
| Total | | | | \$170,810 | 10.4% | \$17,696 |

Intersection: SR-30 Southbound Ramps/5th Street
Improvements: Widen 5th Street to two eastbound through lanes, an eastbound through right turn lane, an eastbound right turn lane, three westbound through lanes, and two westbound left turn lanes.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | WBT | 450 ft. | \$180,000/mile | \$15,300 | | |
| Curb and Gutter | WBT | 450 LF | \$15/LF | \$6,800 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$97,100 | | |
| Minor Items/Supplemental Work | | | 10% | \$9,710 | | |
| Mobilization | | | 10% | \$9,710 | | |
| Contingencies | | | 25% | \$24,280 | | |
| Total | | | | \$140,800 | 16.6% | \$23,443 |

Intersection: SR-30 Northbound Ramps/5th Street
Improvements: Widen 5th Street to three eastbound through lanes, an eastbound left turn lane, two westbound through lanes and a westbound through/right lane. Add a northbound left turn lane to the off-ramp.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|---------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | EBT | 450 ft. | \$180,000/mile | \$15,300 | | |
| Curb and Gutter | EBT | 450 LF | \$15/LF | \$6,800 | | |
| Widen ramp | | -- | \$350,000/each | \$350,000 | | |
| Upgrade existing signal at ramp | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$447,100 | | |
| Minor Items/Supplemental Work | | | 10% | \$44,710 | | |
| Mobilization | | | 10% | \$44,710 | | |
| Contingencies | | | 25% | \$111,780 | | |
| Total | | | | \$648,300 | 12.5% | \$80,769 |

Table R-1a
Year 2030 Off-Site Intersection Improvement Cost Estimates
Land Use Alternative 1, Access Alternative A

Intersection: Boulder Avenue/5th Street

Improvements: Restripe southbound right turn lane as a shared through/right turn lane, add a northbound left turn lane.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|-------|---------|----------------|------------|--------------|------------|
| Roadway widening | WBT | 600 ft. | \$180,000/mile | \$20,500 | | |
| Curb and Gutter | WBT | 600 LF | \$15/LF | \$9,000 | | |
| Add left turn lane | NBL | 1 | \$50,000/each | \$50,000 | | |
| (Add left turn lane) | (SBL) | 1 | \$50,000/each | \$50,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$204,500 | | |
| Minor Items/Supplemental Work | | | 10% | \$20,450 | | |
| Mobilization | | | 10% | \$20,450 | | |
| Contingencies | | | 25% | \$51,130 | | |
| Total | | | | \$296,530 | 1.4% | \$4,295 |

Intersection: Orange Street/Cemex Access

Improvements: Add a northbound through lane and a southbound through lane.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|----------|----------------|------------|--------------|------------|
| Roadway widening | NBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | NBT | 1200 LF | \$15/LF | \$18,000 | | |
| Roadway widening | SBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | SBT | 1200 LF | \$15/LF | \$18,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$192,800 | | |
| Minor Items/Supplemental Work | | | 10% | \$19,280 | | |
| Mobilization | | | 10% | \$19,280 | | |
| Contingencies | | | 25% | \$48,200 | | |
| Total | | | | \$279,560 | 14.5% | \$40,657 |

| | | |
|--|--------------------|------------------|
| TOTAL OFF-SITE INTERSECTION IMPROVEMENT COSTS | \$2,247,370 | \$341,396 |
|--|--------------------|------------------|

Table R-1b
Year 2030 Off-Site Intersection Improvement Cost Estimates
Land Use Alternative 1, Access Alternative B

Intersection: Palm Avenue/5th Street
Improvements: Add a westbound left turn lane.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|-------|-------|---------------|------------|--------------|------------|
| Add left turn lane | WBL | 1 | \$50,000/each | \$50,000 | | |
| (Add left turn lane) | (EBL) | 1 | \$50,000/each | \$50,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$175,000 | | |
| Minor Items/Supplemental Work | | | 10% | \$17,500 | | |
| Mobilization | | | 10% | \$17,500 | | |
| Contingencies | | | 25% | \$43,750 | | |
| Total | | | | \$253,750 | 9.4% | \$23,924 |

Intersection: Palm Avenue/3rd Street
Improvements: Add a northbound right turn lane, restripe rightmost northbound through lane as a shared through/right turn lane. Widen east leg of intersection to accommodate two departure lanes.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | NBR | 600 ft. | \$180,000/mile | \$20,500 | | |
| Curb and Gutter | NBR | 600 LF | \$15/LF | \$9,000 | | |
| Roadway widening | EBT | 750 ft. | \$180,000/mile | \$25,600 | | |
| Curb and Gutter | EBT | 750 LF | \$15/LF | \$10,500 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$140,600 | | |
| Minor Items/Supplemental Work | | | 10% | \$14,060 | | |
| Mobilization | | | 10% | \$14,060 | | |
| Contingencies | | | 25% | \$35,150 | | |
| Total | | | | \$203,870 | 14.0% | \$28,640 |

Intersection: Alabama Street/Robertson's Access-Cemex Access (driveways combined for signalization due to proximity)
Improvements: Install a traffic signal.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|-------|---------------|------------|--------------|------------|
| Install new traffic signal | | -- | \$90,000/each | \$90,000 | | |
| Subtotal | | | | \$90,000 | | |
| Minor Items/Supplemental Work | | | 10% | \$9,000 | | |
| Mobilization | | | 10% | \$9,000 | | |
| Contingencies | | | 25% | \$22,500 | | |
| Total | | | | \$130,500 | 100.0% | \$130,500 |

Table R-1b
Year 2030 Off-Site Intersection Improvement Cost Estimates
Land Use Alternative 1, Access Alternative B

Intersection: Alabama Street/Robertson's Access-Cemex Access (driveways combined for signalization due to proximity)
 Improvements: Add a northbound through lane and a southbound through lane.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|----------|----------------|------------|--------------|------------|
| Roadway widening | NBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | NBT | 1200 LF | \$15/LF | \$18,000 | | |
| Roadway widening | SBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | SBT | 1200 LF | \$15/LF | \$18,000 | | |
| Subtotal | | | | \$117,800 | | |
| Minor Items/Supplemental Work | | | 10% | \$11,780 | | |
| Mobilization | | | 10% | \$11,780 | | |
| Contingencies | | | 25% | \$29,450 | | |
| Total | | | | \$170,810 | 17.7% | \$30,184 |

Intersection: Church Avenue/5th Street
 Improvements: Add south leg to intersection corresponding to 3rd Street connection

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | NBR | 200 ft. | \$180,000/mile | \$6,800 | | |
| Curb and Gutter | NBR | 400 LF | \$15/LF | \$6,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$87,800 | | |
| Minor Items/Supplemental Work | | | 10% | \$8,780 | | |
| Mobilization | | | 10% | \$8,780 | | |
| Contingencies | | | 25% | \$21,950 | | |
| Total | | | | \$127,310 | 17.0% | \$21,675 |

Intersection: SR-30 Southbound Ramps/5th Street
 Improvements: Widen 5th Street to two eastbound through lanes, an eastbound through right turn lane, an eastbound right turn lane, three westbound through lanes, and two westbound left turn lanes.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | WBT | 450 ft. | \$180,000/mile | \$15,300 | | |
| Curb and Gutter | WBT | 450 LF | \$15/LF | \$6,800 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$97,100 | | |
| Minor Items/Supplemental Work | | | 10% | \$9,710 | | |
| Mobilization | | | 10% | \$9,710 | | |
| Contingencies | | | 25% | \$24,280 | | |
| Total | | | | \$140,800 | 16.6% | \$23,443 |

Table R-1b
Year 2030 Off-Site Intersection Improvement Cost Estimates
Land Use Alternative 1, Access Alternative B

Intersection: SR-30 Northbound Ramps/5th Street

Improvements: Widen 5th Street to three eastbound through lanes, an eastbound left turn lane, two westbound through lanes and a westbound through/right lane. Add a northbound left turn lane to the off-ramp.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|---------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | EBT | 450 ft. | \$180,000/mile | \$15,300 | | |
| Curb and Gutter | EBT | 450 LF | \$15/LF | \$6,800 | | |
| Widen ramp | | -- | \$350,000/each | \$350,000 | | |
| Upgrade existing signal at ramp | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$447,100 | | |
| Minor Items/Supplemental Work | | | 10% | \$44,710 | | |
| Mobilization | | | 10% | \$44,710 | | |
| Contingencies | | | 25% | \$111,780 | | |
| Total | | | | \$648,300 | 12.5% | \$80,769 |

Intersection: Boulder Avenue/5th Street

Improvements: Restripe southbound right turn lane as a shared through/right turn lane, add a northbound left turn lane. Widen west leg of intersection to 6 lanes.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|-------|---------|----------------|------------|--------------|------------|
| Roadway widening | WBT | 600 ft. | \$180,000/mile | \$20,500 | | |
| Curb and Gutter | WBT | 600 LF | \$15/LF | \$9,000 | | |
| Add left turn lane | NBL | 1 | \$50,000/each | \$50,000 | | |
| (Add left turn lane) | (SBL) | 1 | \$50,000/each | \$50,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$204,500 | | |
| Minor Items/Supplemental Work | | | 10% | \$20,450 | | |
| Mobilization | | | 10% | \$20,450 | | |
| Contingencies | | | 25% | \$51,130 | | |
| Total | | | | \$296,530 | 1.4% | \$4,295 |

Intersection: Orange Street/Cemex Access

Improvements: Add a northbound through lane and a southbound through lane.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|----------|----------------|------------|--------------|------------|
| Roadway widening | NBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | NBT | 1200 LF | \$15/LF | \$18,000 | | |
| Roadway widening | SBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | SBT | 1200 LF | \$15/LF | \$18,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$192,800 | | |
| Minor Items/Supplemental Work | | | 10% | \$19,280 | | |
| Mobilization | | | 10% | \$19,280 | | |
| Contingencies | | | 25% | \$48,200 | | |
| Total | | | | \$279,560 | 14.5% | \$40,657 |

TOTAL OFF-SITE INTERSECTION IMPROVEMENT COSTS **\$2,251,430** **\$384,087**

Table R-1c
Year 2030 Off-Site Intersection Improvement Cost Estimates
Land Use Alternative 1, Access Alternative D

Intersection: Palm Avenue/5th Street
 Improvements: Add a westbound left turn lane.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|-------|-------|---------------|------------|--------------|------------|
| Add left turn lane | WBL | 1 | \$50,000/each | \$50,000 | | |
| (Add left turn lane) | (EBL) | 1 | \$50,000/each | \$50,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$175,000 | | |
| Minor Items/Supplemental Work | | | 10% | \$17,500 | | |
| Mobilization | | | 10% | \$17,500 | | |
| Contingencies | | | 25% | \$43,750 | | |
| Total | | | | \$253,750 | 5.8% | \$14,628 |

Intersection: Palm Avenue/3rd Street
 Improvements: Add a northbound right turn lane, restripe rightmost northbound through lane as a shared through/right turn lane. Widen east leg of intersection to accommodate two departure lanes.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | NBR | 600 ft. | \$180,000/mile | \$20,500 | | |
| Curb and Gutter | NBR | 600 LF | \$15/LF | \$9,000 | | |
| Roadway widening | EBT | 750 ft. | \$180,000/mile | \$25,600 | | |
| Curb and Gutter | EBT | 750 LF | \$15/LF | \$10,500 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$140,600 | | |
| Minor Items/Supplemental Work | | | 10% | \$14,060 | | |
| Mobilization | | | 10% | \$14,060 | | |
| Contingencies | | | 25% | \$35,150 | | |
| Total | | | | \$203,870 | 8.8% | \$17,843 |

Intersection: Alabama Street/Robertson's Access-Cemex Access (driveways combined for signalization due to proximity)
 Improvements: Install a traffic signal.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|-------|---------------|------------|--------------|------------|
| Install new traffic signal | | -- | \$90,000/each | \$90,000 | | |
| Subtotal | | | | \$90,000 | | |
| Minor Items/Supplemental Work | | | 10% | \$9,000 | | |
| Mobilization | | | 10% | \$9,000 | | |
| Contingencies | | | 25% | \$22,500 | | |
| Total | | | | \$130,500 | 100.0% | \$130,500 |

Table R-1c
Year 2030 Off-Site Intersection Improvement Cost Estimates
Land Use Alternative 1, Access Alternative D

Intersection: Alabama Street/Robertson's Access-Cemex Access (driveways combined for signalization due to proximity)
 Improvements: Add a northbound through lane and a southbound through lane.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|----------|----------------|------------|--------------|------------|
| Roadway widening | NBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | NBT | 1200 LF | \$15/LF | \$18,000 | | |
| Roadway widening | SBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | SBT | 1200 LF | \$15/LF | \$18,000 | | |
| Subtotal | | | | \$117,800 | | |
| Minor Items/Supplemental Work | | | 10% | \$11,780 | | |
| Mobilization | | | 10% | \$11,780 | | |
| Contingencies | | | 25% | \$29,450 | | |
| Total | | | | \$170,810 | 11.4% | \$19,414 |

Intersection: Church Avenue/5th Street
 Improvements: Add south leg to intersection corresponding to 3rd Street connection

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | NBR | 200 ft. | \$180,000/mile | \$6,800 | | |
| Curb and Gutter | NBR | 400 LF | \$15/LF | \$6,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$87,800 | | |
| Minor Items/Supplemental Work | | | 10% | \$8,780 | | |
| Mobilization | | | 10% | \$8,780 | | |
| Contingencies | | | 25% | \$21,950 | | |
| Total | | | | \$127,310 | 9.6% | \$12,177 |

Intersection: SR-30 Southbound Ramps/5th Street
 Improvements: Widen 5th Street to two eastbound through lanes, an eastbound through right turn lane, an eastbound right turn lane, three westbound through lanes, and two westbound left turn lanes.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | WBT | 450 ft. | \$180,000/mile | \$15,300 | | |
| Curb and Gutter | WBT | 450 LF | \$15/LF | \$6,800 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$97,100 | | |
| Minor Items/Supplemental Work | | | 10% | \$9,710 | | |
| Mobilization | | | 10% | \$9,710 | | |
| Contingencies | | | 25% | \$24,280 | | |
| Total | | | | \$140,800 | 16.6% | \$23,443 |

Table R-1c
Year 2030 Off-Site Intersection Improvement Cost Estimates
Land Use Alternative 1, Access Alternative D

Intersection: SR-30 Northbound Ramps/5th Street

Improvements: Widen 5th Street to three eastbound through lanes, an eastbound left turn lane, two westbound through lanes and a westbound through/right lane. Add a northbound left turn lane to the off-ramp.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|---------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | EBT | 450 ft. | \$180,000/mile | \$15,300 | | |
| Curb and Gutter | EBT | 450 LF | \$15/LF | \$6,800 | | |
| Widen ramp | | -- | \$350,000/each | \$350,000 | | |
| Upgrade existing signal at ramp | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$447,100 | | |
| Minor Items/Supplemental Work | | | 10% | \$44,710 | | |
| Mobilization | | | 10% | \$44,710 | | |
| Contingencies | | | 25% | \$111,780 | | |
| Total | | | | \$648,300 | 12.5% | \$80,769 |

Intersection: Boulder Avenue/5th Street

Improvements: Restripe southbound right turn lane as a shared through/right turn lane, add a northbound left turn lane. Widen west leg of intersection to 6 lanes.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|-------|---------|----------------|------------|--------------|------------|
| Roadway widening | WBT | 600 ft. | \$180,000/mile | \$20,500 | | |
| Curb and Gutter | WBT | 600 LF | \$15/LF | \$9,000 | | |
| Add left turn lane | NBL | 1 | \$50,000/each | \$50,000 | | |
| (Add left turn lane) | (SBL) | 1 | \$50,000/each | \$50,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$204,500 | | |
| Minor Items/Supplemental Work | | | 10% | \$20,450 | | |
| Mobilization | | | 10% | \$20,450 | | |
| Contingencies | | | 25% | \$51,130 | | |
| Total | | | | \$296,530 | 1.4% | \$4,295 |

Intersection: Orange Street/Cemex Access

Improvements: Add a northbound through lane and a southbound through lane.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|----------|----------------|------------|--------------|------------|
| Roadway widening | NBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | NBT | 1200 LF | \$15/LF | \$18,000 | | |
| Roadway widening | SBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | SBT | 1200 LF | \$15/LF | \$18,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$192,800 | | |
| Minor Items/Supplemental Work | | | 10% | \$19,280 | | |
| Mobilization | | | 10% | \$19,280 | | |
| Contingencies | | | 25% | \$48,200 | | |
| Total | | | | \$279,560 | 14.5% | \$40,657 |

TOTAL OFF-SITE INTERSECTION IMPROVEMENT COSTS **\$2,251,430** **\$343,726**

Table R-1d
Year 2030 Off-Site Intersection Improvement Cost Estimates
Land Use Alternative 2, Access Alternative C

Intersection: Palm Avenue/5th Street

Improvements: Add a westbound left turn lane and two northbound right turn lanes with right turn overlap phasing.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|-------|-------------|----------------|------------|--------------|------------|
| Roadway widening | NBR | 500 ft.(x2) | \$180,000/mile | \$34,100 | | |
| Curb and Gutter | NBR | 500 LF | \$15/LF | \$7,500 | | |
| Add left turn lane | WBL | 1 | \$50,000/each | \$50,000 | | |
| (Add left turn lane) | (EBL) | 1 | \$50,000/each | \$50,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$216,600 | | |
| Minor Items/Supplemental Work | | | 10% | \$21,660 | | |
| Mobilization | | | 10% | \$21,660 | | |
| Contingencies | | | 25% | \$54,150 | | |
| Total | | | | \$314,070 | 10.5% | \$33,041 |

Intersection: Palm Avenue/3rd Street

Improvements: Add an eastbound left-turn lane and a northbound through lane.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | NBT | 600 ft. | \$180,000/mile | \$20,500 | | |
| Curb and Gutter | NBT | 600 LF | \$15/LF | \$9,000 | | |
| Roadway widening | EBT | 600 ft. | \$180,000/mile | \$20,500 | | |
| Curb and Gutter | EBT | 600 LF | \$15/LF | \$9,000 | | |
| Add left turn lane | EBL | 1 | \$50,000/each | \$50,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$184,000 | | |
| Minor Items/Supplemental Work | | | 10% | \$18,400 | | |
| Mobilization | | | 10% | \$18,400 | | |
| Contingencies | | | 25% | \$46,000 | | |
| Total | | | | \$266,800 | 10.6% | \$28,403 |

Intersection: Alabama Street/Robertson's Access-Cemex Access (driveways combined for signalization due to proximity)

Improvements: Install a traffic signal.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|-------|---------------|------------|--------------|------------|
| Install new traffic signal | | -- | \$90,000/each | \$90,000 | | |
| Subtotal | | | | \$90,000 | | |
| Minor Items/Supplemental Work | | | 10% | \$9,000 | | |
| Mobilization | | | 10% | \$9,000 | | |
| Contingencies | | | 25% | \$22,500 | | |
| Total | | | | \$130,500 | 100.0% | \$130,500 |

Table R-1d
Year 2030 Off-Site Intersection Improvement Cost Estimates
Land Use Alternative 2, Access Alternative C

Intersection: Alabama Street/Robertson's Access-Cemex Access (driveways combined for signalization due to proximity)
 Improvements: Add a northbound through lane and a southbound through lane.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|----------|----------------|------------|--------------|------------|
| Roadway widening | NBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | NBT | 1200 LF | \$15/LF | \$18,000 | | |
| Roadway widening | SBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | SBT | 1200 LF | \$15/LF | \$18,000 | | |
| Subtotal | | | | \$117,800 | | |
| Minor Items/Supplemental Work | | | 10% | \$11,780 | | |
| Mobilization | | | 10% | \$11,780 | | |
| Contingencies | | | 25% | \$29,450 | | |
| Total | | | | \$170,810 | 13.6% | \$23,300 |

Intersection: SR-30 Southbound Ramps/5th Street
 Improvements: Widen 5th Street to two eastbound through lanes, an eastbound through right turn lane, an eastbound right turn lane, three westbound through lanes, and two westbound left turn lanes.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | WBT | 450 ft. | \$180,000/mile | \$15,300 | | |
| Curb and Gutter | WBT | 450 LF | \$15/LF | \$6,800 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$97,100 | | |
| Minor Items/Supplemental Work | | | 10% | \$9,710 | | |
| Mobilization | | | 10% | \$9,710 | | |
| Contingencies | | | 25% | \$24,280 | | |
| Total | | | | \$140,800 | 16.5% | \$23,266 |

Intersection: SR-30 Northbound Ramps/5th Street
 Improvements: Widen 5th Street to three eastbound through lanes, an eastbound left turn lane, two westbound through lanes and a westbound through/right lane. Add a northbound left turn lane to the off-ramp.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|---------------------------------|------|---------|----------------|------------|--------------|------------|
| Roadway widening | EBT | 450 ft. | \$180,000/mile | \$15,300 | | |
| Curb and Gutter | EBT | 450 LF | \$15/LF | \$6,800 | | |
| Widen ramp | | -- | \$350,000/each | \$350,000 | | |
| Upgrade existing signal at ramp | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$447,100 | | |
| Minor Items/Supplemental Work | | | 10% | \$44,710 | | |
| Mobilization | | | 10% | \$44,710 | | |
| Contingencies | | | 25% | \$111,780 | | |
| Total | | | | \$648,300 | 19.3% | \$124,825 |

Table R-1d
Year 2030 Off-Site Intersection Improvement Cost Estimates
Land Use Alternative 2, Access Alternative C

Intersection: Boulder Avenue/5th Street
Improvements: Restripe southbound right turn lane as a shared through/right turn lane, add a northbound left turn lane.
Widen west leg of intersection to 6 lanes.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|-------|---------|----------------|------------|--------------|------------|
| Roadway widening | WBT | 600 ft. | \$180,000/mile | \$20,500 | | |
| Curb and Gutter | WBT | 600 LF | \$15/LF | \$9,000 | | |
| Add left turn lane | NBL | 1 | \$50,000/each | \$50,000 | | |
| (Add left turn lane) | (SBL) | 1 | \$50,000/each | \$50,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$204,500 | | |
| Minor Items/Supplemental Work | | | 10% | \$20,450 | | |
| Mobilization | | | 10% | \$20,450 | | |
| Contingencies | | | 25% | \$51,130 | | |
| Total | | | | \$296,530 | 10.2% | \$30,198 |

Intersection: Orange Street/Cemex Access
Improvements: Add a northbound through lane and a southbound through lane.

| Items | Lane | Units | Unit Cost | Total Cost | Fair-Share % | Fair-Share |
|-------------------------------|------|----------|----------------|------------|--------------|------------|
| Roadway widening | NBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | NBT | 1200 LF | \$15/LF | \$18,000 | | |
| Roadway widening | SBT | 1200 ft. | \$180,000/mile | \$40,900 | | |
| Curb and Gutter | SBT | 1200 LF | \$15/LF | \$18,000 | | |
| Upgrade existing signal | | -- | \$75,000/each | \$75,000 | | |
| Subtotal | | | | \$192,800 | | |
| Minor Items/Supplemental Work | | | 10% | \$19,280 | | |
| Mobilization | | | 10% | \$19,280 | | |
| Contingencies | | | 25% | \$48,200 | | |
| Total | | | | \$279,560 | 18.9% | \$52,916 |

| | | | | | | |
|--|--|--|--|--------------------|--|------------------|
| TOTAL OFF-SITE INTERSECTION IMPROVEMENT COSTS | | | | \$2,247,370 | | \$446,449 |
|--|--|--|--|--------------------|--|------------------|