

2010 Planning Level Estimating: (cost per unit)

| <u>Reconstruction:</u> | | <u>per Lane Mile</u> |
|---------------------------------|--|-----------------------------|
| Urban (includes appur.) = | | \$2.200M +/- |
| Suburban/Village ¹ = | | \$1.750M +/- |
| Subrural/Rural = | | \$1.200M +/- |

Reconstruction with widening (without additional lanes) factor cost proportional to reflect entire pavement widening. For example, 10' lanes and 4' shoulders to 12' lanes and 6' shoulders yields a 1.285 factor.

Example: Village = \$1.750M /LM x 1.285 = \$2.250M /LM

| <u>Additional lanes:</u> | | <u>per Lane Miles</u> |
|---------------------------------|--|------------------------------|
| Through lanes = | | \$0.900M +/- |
| Turning lanes = | | \$0.250M each per approach |

| <u>New highway:</u> | | <u>per Lane Miles</u> |
|---------------------------------|--|------------------------------|
| Urban = | | \$4.500M +/- |
| Suburban/Village ¹ = | | \$3.750M +/- |
| Subrural/Rural = | | \$3.000M +/- |

| <u>Add ons:</u> | | |
|------------------------|--|----------------------------|
| Concrete med barrier = | | \$160 per LF |
| Signals = | | \$85,000 each location +/- |
| Guide rail = | | \$45-\$50 per LF |
| Curbing = | | 8% |
| Drainage (closed) = | | 20% +/- |
| Curb ramps = | | \$5,000 each |

¹ Includes areas with significant development and would involve closed drainage and curbing, but not necessarily sidewalks.

| | | |
|----------------|---|--|
| Sidewalks | = | \$25-\$35 per LF (use \$35) (\$17 per ft ³) |
| Box culvert | = | \$80,000-\$120,000 each +/- |
| Bike lane | = | 8%-10% (new/addition) |
| Small culverts | = | \$5,000-\$40,000 each +/- |
| VMS | = | \$7,500-15,000 each +/- |

Use MOE factor 25%-30% (include contingency and MPT)

Other:

| | | |
|-----------------|---|---|
| Retaining walls | = | \$450 per ft ² – new/replace \$360 per ft ² – major rehab \$275 per ft ² – minor rehab |
|-----------------|---|---|

Resurfacing:

| | | |
|------------------|---|------------------------------|
| | | <u>per Lane Miles</u> |
| Microsurfacing | = | \$0.030M +/- |
| VPP | = | \$0.045M +/- |
| 1-course overlay | = | \$0.090M to \$0.150M |
| CIPR | = | \$0.300M +/- |
| Mill and Fill | = | \$0.375M +/- |