

Table K.7: Cost Estimation Model Assumed Ancillary Costs In Addition to Applied Unit Costs, by Project Type

| Project Type | Ancillary Costs (%) |
|---|---------------------|
| Bridge Rehabilitation | 10% |
| Bridge Replacement | 10% |
| Traffic Signal | 30% |
| Road Diet: Requiring new surface prior to new pavement markings | 25% |
| Road Diet: Not requiring new surface prior to new pavement markings | 100% |
| Bike Lane: Requiring new surface prior to new pavement markings | 25% |
| Bike Lane: Not requiring new surface prior to new pavement markings | 100% |
| Sidewalk or Multiuse Path: >2,500 feet long | 75% |
| Sidewalk or Multiuse Path: ≤2,500 feet long | 150% |
| Turn Lane: Left turn | 150% |
| Turn Lane: Right turn | 75% |
| Intersection: With curb & gutter | 60% |
| Intersection: With open-ditch drainage | 30% |
| Roadway Expansion: With curb & gutter | 80% |
| Roadway Expansion: With open ditch drainage | 30% |
| Road Reconstruction: With curb & gutter | 80% |
| Road Reconstruction: With open ditch drainage | 30% |
| New Roadway: With curb & gutter | 60% |
| New Roadway: With open ditch drainage | 20% |

Table K.8: Cost Estimation Model Assumed Non-Construction Costs and Other Cost Adjustments

| Non-Construction Cost or Cost Adjustment | Assumed Cost or Factor |
|--|---|
| Contingency Factor | User input: 10%, 20%, 30%, or 40% of construction cost, including ancillary costs |
| Construction Engineering | 12.5% of construction cost, including ancillary costs and contingency factor |
| Refinement Studies | User input |
| Preliminary Engineering | 10% of construction cost, including ancillary costs and contingency factor |
| ROW Acquisition | Varies by project type |
| Utility Relocation | 5% of construction cost, including ancillary costs and contingency factor |
| Inflation Rate | 4.5% per year (projecting to year of expenditure from 2023 U.S. dollar) |

Table K.9: Cost Estimation Model Assumed Right of Way-Acquisition Costs, by Project Type

| Project Type | Assumed ROW |
|---|--|
| Bridge Rehabilitation | 2.5% of Construction cost with ancillary costs and contingency factor |
| Bridge Replacement | 2.5% of Construction cost with ancillary costs and contingency factor |
| Traffic Signal | 2.5% of Construction cost with ancillary costs and contingency factor |
| Road Diet | 2.5% of Construction cost with ancillary costs and contingency factor |
| Bike Lane | 2.5% of Construction cost with ancillary costs and contingency factor |
| Sidewalk or Multiuse Path: Narrow space btwn. rd. & ROW line | 5.0% of Construction cost with ancillary costs and contingency factor |
| Sidewalk or Multiuse Path: Typical space btwn. rd. & ROW line | 2.5% of Construction cost with ancillary costs and contingency factor |
| Sidewalk or Multiuse Path: Open space btwn. rd. & ROW line | 1.5% of Construction cost with ancillary costs and contingency factor |
| Turn Lane | 2.5% of Construction cost with ancillary costs and contingency factor |
| Intersection | 2.5% of Construction cost with ancillary costs and contingency factor |
| Roadway Expansion: Narrow space btwn. rd. & ROW line | 5.0% of Construction cost with ancillary costs and contingency factor |
| Roadway Expansion: Typical space btwn. rd. & ROW line | 2.5% of Construction cost with ancillary costs and contingency factor |
| Roadway Expansion: Open space btwn. rd. & ROW line | 1.5% of Construction cost with ancillary costs and contingency factor |
| Road Reconstruction: Narrow space btwn. rd. & ROW line | 5.0% of Construction cost with ancillary costs and contingency factor |
| Road Reconstruction: Typical space btwn. rd. & ROW line | 2.5% of Construction cost with ancillary costs and contingency factor |
| Road Reconstruction: Open space btwn. rd. & ROW line | 1.5% of Construction cost with ancillary costs and contingency factor |
| New Roadway | Square feet to acquire * User-estimated cost per square foot, based on local knowledge |

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