



CHAPTER 9: COST ESTIMATES AND CONCEPTUAL DESIGN

This chapter provides a summary of the probable costs of the improvements shown in the preferred concept plan (Option 1). Conceptual engineering is based on City of San Diego design standards and Street Design Manual, and Traffic Calming Manual. Cost estimates have been prepared using unit cost defined in the City of San Diego Development Services Unit Price List dated January 2009 with some modifications for special items not available from the City data base. A 30% contingency has been added to the construction costs due to the conceptual level of design. In addition to the construction costs, environmental costs, design costs, administrative costs, and other project related costs have been estimated as a percentage of the total construction costs. These percentages are standards used by the City for Capital Improvement Projects

9.1 RIGHT-OF-WAY ASSUMPTIONS

The existing right-of-way shown on the conceptual plans is based on the SANGIS data available from the City with some minor adjustments made in accordance with County Assessor's records. A survey of the actual right-of-way locations has not been completed at this time. Based on the data available, all of the improvements have been designed to avoid a need for right-of-way acquisition. The right-of-way assumptions would need to be confirmed as a part of the final design process.

Construction of new sidewalk improvements between 60th Street and Alamo Street impact some private driveways and private parking areas. Construction of new driveways may require permission to grade on the private property. In some cases private parking is extending into the public right-of-way and will need to be eliminated. While this is not a legal use, the private property owners will incur expense in providing alternative parking for their sites. Several properties do not have defined driveways or have driveways in locations that are not consistent with standards and are not safe. New driveways will meet current standards and may limit the extent of access to private property. Driveways that are not in standard location will be modified, or in some cases eliminated. The design concept including the potential impacts to private property have been presented and discussed at community meetings without apparent opposition. However each affected property owner that is subject to a driveway closure needs to grant permission for work on their property to reconnect sidewalk or driveway improvements will be contracted during the design process. While this is not an issue of right-of-way dedication, legal consultation may be necessary to facilitate coordination with property owners. Costs associated these issues have not been assessed at this time and are not included in the project construction and design estimates.

9.2 CONCEPTUAL ENGINEERING DESIGN CRITERIA

The concept plans are based upon the design standards established in the San Diego Regional Design Drawings and City of San Diego Street Design Manual. Design criteria were previously identified in Chapter 7.

Existing improvements along the corridor were inventoried to identify areas in need of pavement, sidewalk, curb, and curb and gutter replacement. For estimating purposes, all curb and gutter replacement includes an additional 4 feet (4') of pavement removal and replacement to allow for transition grades and construction access. An 8-foot (8') wide grind and overlay is included for a smooth transition. The estimate for pavement replacement is generally limited to one (1) lane width in these areas. Roadway pavement was not generally included in the inventory.



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The cost for construction of new raised medians includes removing the existing paving, grinding, overlaying an 8-foot (8') wide section of pavement on each side of the median for a smooth transition, and paving the median area with decorative concrete. Where existing sewer lines are located under a new median and relocation is feasible, the cost of relocating the sewer is included in the cost estimate and shown as a separate item of work. Landscaping may be added to medians if a maintenance mechanism is provided, but the cost is not included in this preliminary estimate.

Fire hydrants and other water and sewer facilities (i.e. water meters and back flow preventers) may need to be relocated as part of the improvement project. These smaller items have not been identified. The 30% construction contingency is intended to provide budget for these types of facilities.

Traffic control, mobilization, and storm water pollution prevention are required for all phases of the work and have been estimated based on a percentage of construction cost. Traffic control and mobilization have each been estimated at 5% of the construction cost for each phase of work and storm water pollution prevention has been estimated as 5% of the construction cost for each phase of work.

There are a number of franchise utilities in the corridor. The issue of prior rights of those facilities is not included in the scope of this project. For purposes of this estimate, it was assumed that the cost of relocating franchise utilities will be cost borne by the franchise utility company owning the facility.

Drainage studies and preliminary design of storm drainage systems was not included in the scope of this project. Based on a visual assessment of the approximate drainage basin it is anticipated that many of the systems are inadequate. For purposes of this estimate, a minimum 24-inch (24") reinforced concrete pipe is assumed for all connections. The maximum inlet size is assumed for replacement inlets. Cross gutters and/or additional inlets were added where grade changes would be necessary to meet ADA access requirements. This is an existing urban area with nearly 100% impervious surface within the existing right-of-way. This project will not increase the impervious area. With the exception of the Chollas Parkway intersection, there are no opportunities for Treatment Control Best Management Practices other than the addition of media filters in storm drains. For purposes of this estimate, the cost of storm drains upgrades and replacements include the cost of providing inlet filters. The Chollas Parkway intersection construction cost estimate includes the cost of providing a vegetated swale to filter storm water runoff.

A number of areas have been identified as possible opportunities for landscaping in the future if a maintenance district or other financing mechanism is established. The construction cost estimate does not include the cost of landscaping, with the exception of erosion control at the large open area at the Chollas Parkway intersection.

For cost estimating purposes, the proposed project has been broken into the following three segments consistent with the type of improvements provided:

Segment 1 – 54th Street to College Avenue

- Includes Dedicated Bike Lanes,
- Includes Raised Medians,
- Provides Limited Parking
- Deletes Free Right Turns at 54th Street and 58th Street
- Realignment of Chollas Parkway Intersection

Segment 2 – College Avenue to Aragon Drive

- Includes Dedicated Bike Lanes and Parking Lanes
- Includes Raised Medians

Segment 3 – Aragon Drive to 69th Street

- Includes Share the Road (Sharrow) Striping



Table 9-1 provides a summary of the construction costs for each segment of the project. The detailed construction cost estimates are provided in Appendix K.

Segment	Construction Costs Estimates(\$)						
	Construction	Bond (2%)	Field Orders (5%)	Design (25%)	Administrative (25%)	Environmental (15%)	Total Cost
1 – 54 th St to College Ave	\$8,049,612	\$160,992	\$402,481	\$2,012,403	\$2,012,403	\$1,207,442	\$13,845,333-
2 – College Ave to Aragon Dr	\$4,300,555	\$86,011	\$215,028	\$1,075,139	\$1,075,139	\$645,083	\$7,396,955
3 – Aragon Dr to 69 th St	\$465,723	\$9,234	\$23,086	\$115,431	\$115,431	\$69,258	\$794,163
Total Corridor:	\$12,811,890	\$256,238	\$640,595	\$3,202,973	\$3,202,973	\$1,921,784	\$22,036,451

9.3 COST ESTIMATE ASSUMPTIONS

The total project cost includes the cost of bonding, a contingency for field changes during construction, environmental review and permitting, design, and administrative costs for City staff. Each of the additional costs is further described below. Each of these items is estimated on a percentage of construction cost. These percentages have been established from historical data on City of San Diego Capital Improvement Projects. The total cost for these additional items is 72% of the basic construction cost.

Bond Costs are a construction related cost (2%). These are the costs associated with bonding for the individual projects.

Field Orders are a construction related cost (5%). It accounts for changes in the field that are necessary to address issues that arise in the field during construction of the project.

Design is an additional, non-construction related cost (25%). It relates to costs associated with final design engineering.

Administrative cost is an additional, non-construction related cost (25%). This is the cost associated with plan check fees, inspection services, contract administration and other city related services.

Environmental cost is an additional, non-construction related cost (15%). It relates to the costs associated with preparing and processing the necessary environmental documents for the project. This includes the processing of environmental permits and coordination with the environmental protection agencies.

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