
CHAPTER 3. COST ESTIMATION

- 3-1 REPLACEMENT COST ESTIMATE. (Total for All Improvements) cost of structures, land improvements and applicable fees for construction inside the property boundaries.
- A. Manual estimation. Use Form FHA 2325, Report of Cost Processing Worksheet and Form FHA 2326, Project Cost Estimate. (Handbook 4480.1, Multifamily Underwriting Reports and Forms Catalog.)
 - B. Computer Estimation. Use Headquarters approved computer estimation system, which follows similar procedures as manual estimation.
- 3-2 COMPARABLE SELECTION.
- A. Identify the design characteristics of the proposal by review of the exhibits and list on the worksheet.
 - B. Select three similar projects from the data banks. They must be the same project type and structural system.
 - 1) List the design characteristics identified in the data for each of the comparables.
 - 2) Compare the design characteristics of the proposal with those of the comparables, considering they are listed in descending order of importance.
 - C. Choose the comparable most like the proposal for developing the gross structure cost estimate.
- 3-3 TIME/LOCATION MULTIPLIER. A cost adjustment factor for time, local variations in material, equipment and labor costs.
- A. Use a commercial cost indice.
 - B. Develop a multiplier from the indice to update the construction cost from the construction start date of the comparable to the estimated of construction start date of the proposal.
- 3-4 GROSS STRUCTURE ESTIMATE. Adjust all trade items for time, location and physical differences between comparable and proposal. Total, trade items for the estimate.

(3-4) A. Gross Square Foot Cost Adjustments.

- 1) Trade items include:
 - a) Concrete.
 - b) Masonry.
 - c) Metals.
 - d) Rough Carpentry.
 - e) Finish Carpentry.
 - f) Waterproofing.
 - g) Insulation.
 - h) Roofing.
 - i) Sheet Metal.
 - j) Doors.
 - k) Windows.
 - l) Glass.
 - m) Lath and Plaster.
 - n) Drywall.
 - o) Acoustical.
 - p) Wood Flooring.
 - q) Resilient Flooring.
 - r) Painting-Decorating.
 - s) Carpets.
 - t) Special Construction.
- 2) Delete the gross square foot cost of any trade item in the comparable not in the proposal. (Use zero dollars, \$0.)
- 3) Multiply the total of the trade items by the time/location multiplier for adjusted gross square foot cost.

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- (3-4) 4) Multiply the gross area of the proposal by the adjusted gross square foot cost for the cost estimate of the above trade items.

B. Per Unit Cost Adjustments

1) Trade items include:

- a) Tilework.
- b) Specialties.
- c) Special Equipment.
- d) Cabinets.
- e) Appliances.
- f) Blinds, Shades, Artwork.
- g) Heating.
- h) Air-conditioning.
- i) Electrical.

- 2) Delete the per unit cost of any trade item in the comparable not in the proposal. (use zero dollar, \$0.)
- 3) Multiply trade item per unit cost from comparable by number of units in proposal for unadjusted cost.
- 4) Multiply by time/location multiplier for adjusted cost of the trade item.

C. Plumbing Per Fixture Cost Adjustments.

- 1) Determine the number of plumbing fixtures in the proposal.
 - a) Each full bath equals five fixtures.
 - b) Each half bath equals two fixtures.
 - 2) Multiply the cost per fixture from comparable by the number of fixtures for unadjusted cost.
 - 3) Multiply by time/location multiplier for adjusted cost of plumbing trade item.
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(3-4) D. Elevator Per Stop Cost Adjustments.

- 1) Count the number of elevator stops in the proposal.
- 2) Multiply the per stop cost from comparable by the number of stops in proposal for unadjusted cost.
- 3) Multiply by time/location multiplier for adjusted cost of elevator trade item.

E. Lump Sum Cost Adjustments (Bench marks).

- 1) If the comparable has no square foot or a per unit cost for a trade item shown in the proposal, use a bench mark.
- 2) Where a difference in the type or number of elevators or stops will distort the estimate, use a bench mark instead of elevator per stop cost.
- 3) Where there is a significant physical difference between the comparable and the proposal use a bench mark instead of the trade item cost of the comparable.

3-5 ACCESSORY BUILDINGS. Special purpose structures in the proposal, i.e., community, storage, laundry, maintenance and project office buildings and garages and carports.

- A. Use the bench mark (gross square foot cost) for each type of building and multiply by the gross square foot area of the accessory building to estimate cost.
- B. Where the structure is unusual, make the estimate by quantity take-off from the drawings and use applicable bench marks.

3-6 LAND IMPROVEMENTS. Site work in the proposal including earthwork site utilities, roads and walks, site improvements, lawns and planting, and unusual site conditions.

A. Preliminary estimate (exhibits incomplete).

- 1) Select a comparable from the data bank using the following characteristics in descending order of importance.
 - a) Land area.
 - b) Project type.
 - c) Number of buildings.

d) Number of units.

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- (3-6)
- 2) Develop a time/location multiplier (see 3-3).
 - 3) Multiply the gross square foot cost of each land improvement by the time/location multiplier to adjust.
 - 4) Multiply the gross land area of the proposal by the adjusted gross square foot cost of each land improvement and total for the estimate.
- B. Final Estimate (exhibits complete).
- 1) Make a quantity take-off from the final drawings and use applicable bench marks for the items in each land improvement. Total for the estimate.
 - 2) The estimate of land improvements for firm commitment must be made using this method.
- 3-7 ALLOWANCES AND FEES. Select data applicable to proposal.
- A. General Requirements. Use lump sum or multiply the cost of structures, accessory buildings and land improvements by percentage.
- B. Builder's Overhead. Always use 2 percent of the cost of structures, accessory buildings, land improvements and general requirements.
- C. Builder's Profit. Use the remaining percentage from builder's fee data after subtracting builder's overhead and multiply cost of structures, accessory buildings, land improvements and general requirements. (Note - Do not include profit in projects with BSPRA.)
- D. Architect Fees
- 1) Design (prior to construction).
 - 2) Supervision (during construction).
 - 3) Use a stipulated (lump) sum for each fee.
- E. Other Fees. Identify each item and service and use lump sum or rate for each. Total for estimate.
- F. Bond Premium. Use lump sum.

