



## **BASIS OF ESTIMATE**

**National Pharmaceutical Company  
Ann Arbor, Michigan**

1. **Purpose:** The purpose of this document is to serve as a communication tool for the project team by defining the quality and scope of this project. KAS Estimating Services has attempted to interpret the design documents into a cost estimate. The estimate represents construction trade labor, material, equipment and methods, which are anticipated to be employed on this project. This estimate is not formatted by bid category nor is it our intent to predict low bid by category or by sub-systems. This is a working document that should be reviewed by the project team with necessary revisions duly raised and documented as part of the design process.
2. **Building Gross Area:** The AIA G.S.F. listed in the gross area tabulation, is based on the American Institute of Architects (AIA) Document D101, Architectural Area and Volume of Buildings, 1995 Edition.
3. **Design Documents:** The estimate is based on schematic design documents as listed in the document list.
4. **Bonds:** 100% performance and payment bonds are included.
5. **Contingency:** The estimate excludes all cost associated with owner contingencies. The estimate also, excludes any contingencies based on the following:
  - Design Contingency.....0.00%
  - Construction Contingency .....0.00%
6. **Sole Source Exclusion:** This estimate assumes that the final bid documents will name three or more manufacturers whose products are acceptable under the base bid for each section or work category.
7. **Sales Tax:** This estimate excludes all cost associated with state and local sales tax.
8. **Competitive Pricing:** Contractor assumes and reserves the right to competitively bid each trade.
9. **Clarifications:**

General – The following items are not included in the estimate:

  - Professional fees
  - Project expenses
  - Removal of contaminated and/or hazardous materials

Mechanical –

  - General:
    - Pipe ID as per ANSI for all mechanical systems.
    - Successful bidder shall be furnished with CADD disk for as built at no additional cost.
    - All piping hangers & supports shall be in accordance with ASHRAE standards



- **Plumbing:**  
 Copper piping & fittings for domestic water up to 4" size. Anything larger is black steel.  
 Casework sink furnished by others, installed by plumber  
 Cast iron pipe for sanitary & storm piping above and below grounds.  
 Compressed air outlet furnished by others, installed by plumber  
 Vacuum outlet furnished by others, installed by plumber  
 Connect to existing Vacuum Pump, Air Compressor, & DI Equipments  
 Polypropylene acid waste piping  
 Valves & fittings are included as a percentage of total pipe length.
- **Fire Protection:**  
 No heat tracing of fire protection lines.  
 No Fire & Jockey pumps.  
 Assumed no factory mutual requirements.  
 Use pendant type upright head for general storage area, semi-recessed in offices & recessed heads in remaining areas.
- **HVAC:**  
 Connect to existing building steam.  
 Connect to existing building chilled water.  
 Perimeter Fin tube radiation  
 Custom air handling units will be used.  
 Ductwork insulation is 2" thick, .75 lbs. density for all supply air ductwork.  
 Return air ductwork is insulated in non--conditioned areas over conditioned area.  
 Temperature controls are a combination of DDC & pneumatic  
 No clean steam included.  
 No heat tracing included.  
 No hear recovery system.  
 No seismic restraint is anticipated.

**10. Standards:** This estimate is based on the following industry standards:

- Fire protection systems. ....NFPA-13, 14,20
- Pipe fittings fabrication and installation .....ASHRAE
- Plumbing .....1997 International Plumbing Code
- Sheet metal fabrication installation & testing. .... SMACNA

**11. Labor Rates:** This estimate is based on current Ann Arbor labor union wage rates.

**12. Allowance:** Allowances indicated in the estimate breakdown shall cover the cost of materials and equipment delivered at the site, all required taxes, less applicable trade discounts: costs for unloading and handling at the site, labor, installation costs, overhead, profit and all other expenses contemplated for stated allowance.