

system evaluation

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SOME THINGS TO THINK ABOUT WHEN SELECTING STRUCTURAL, OR ENCLOSURE SYSTEMS FOR YOUR PROJECT.....

TO SELECT, YOU NEED CRITERIA, SOMETHING TO EVALUATE ON SYSTEM OVER ANOTHER.

CRITERIA USED IN REAL WORLD SITUATIONS. (THESE DONT HAVE EQUAL IMPORTANCE ON EVERY JOB)

- : COST, BASED ON SUPPLIERS PRICES, CONTRACTORS ESTIMATES, AND PAST EXPERIENCE
- : TIME, HOW QUICKLY CAN A SYSTEM BE INSTALLED, WHAT IS THE ORDER OF ASSEMBLY.
- : WEATHER, WHEN WILL CONSTRUCTION START? WILL IT GO ON THRU WINTER? (YOU CAN WORK THRU WINTER BUT THE OWNER PAYS EXTRA FOR IT)
- : DURABILITY, HOW OFTEN IS MAINTINENCE REQUIRED? HOW EASILY IS IT PATCHED?
- : ADDITIONAL OPERATIONS, WHAT ELSE HAS TO BE DONE TO IT ONCE IT HAS BEEN INSTALLED? WHAT KIND OF FIREPROOFING? WHAT HAS TO BE DONE TO IT BEFORE IT CAN BE FINISHED?
- : AVAILABILITY, IS IT LOCALLY AVAILABLE? HOW FAR AWAY DOES IT COME FROM? CAN SUPPLIER MEET DEADLINES? WHERE ARE OTHER LOCAL INSTALLATIONS? WHO IS THE LOCAL REPRESENTATIVE/SALESMAN?
- : SPECIAL EQUIPMENT, IS A FORKLIFT REQUIRED? CAN TWO MEN MOVE IT? IS A CRANE REQUIRED? IS A TOWER CRANE REQUIRED?
- : SPECIAL LABOR, ARE TRAINED LABORERS REQUIRED? AVAILABLE? ANY UPCOMING STRIKES, SHORTAGES?
- : DESIGN INTENT, PSYCHOLOGICAL IMPACT OF MATERIALS, (WOOD WARM, STEEL COLD) DESIREABILITY OF STRUCTURAL EXPOSURE OR EXPRESSION? EXPRESSION OF ENCLOSING SYSTEM AS SKIN? PANELS?
- : BUILDING CODE, PROGRAM AREA vs. ALLOWABLE AREA/CONSTRUCTION TYPE OCCUPANCY GROUP vs.ALLOWABLE AREA/CONSTRUCTION TYPE?
- : FLEXIBILITY, ADAPTATION/INTEGRATION TO DESIGN SCHEME/CONCEPT FUTURE EXPANSION, HOW MANY DIRECTIONS? VERTICALLY? HORIZONTALLY? HOW EASILY IS INTERIOR ADAPTED TO CHANGE?
- : MECHANICAL/ELECRICAL SYSTEMS INTERFACE, HOW EASILY IS MECH./ELEC. SYSTEM INTEGRATED INTO THE WHOLE DESIGN, HOW EASILY INTO THE STRUCTURE? HOW MUCH MECH/ELEC.? (HOSPITALS, LABS HAVE LOTS, WAREHOUSES, LITTLE) HOW BIG, BULKY IS THE SYSTEM, (LARGE SPACES NEED MORE AIR, LARGER DUCTS. SMALL SPACES USE SMALLER DUCTS.) HOW MUCH FLEXIBILITY IN SYSTEMS IS DESIRED? (SPEC OFFICE NEEDS MUCH. RESIDENCE NEEDS LESS MECH./ELEC. SYSTEM FLEXIBILITY? HOW MUCH "NESTING" OF STRUCTURAL AND MECH./ELEC. CAN BE DONE?
- :BUILDING HEIGHT, (FLOOR TO FLOOR HEIGHT) AS LOW AS POSSIBLE. DONT WASTE VERTICAL SPACE! ON A 20 STORY BLDG. SAVING SIX INCHES PER FLOOR WOULD SAVE 10 FEET ON THE BUILDING! THATS A WHOLE EXTRA FLOOR YOU WOULD HAVE PAID FOR THAT WAS WASTED AS SIX INCHES ON EACH FLOOR.

OKAY, IN SCHOOL YOU DONT ALWAYS HAVE THINGS LIKE A REAL CLIENT, REAL BUDGET, A CONTRACTOR TO CALL AND ASK QUESTIONS OF, BUT YOU DO HAVE AN IMPORTANT TOOL TO HELP YOU IN EVALUATING THESE CRITERIA AND ALTERNATIVES, THAT IS