



Developing a design plan for trash system - whether it's for a hotel, mall, high-rise residential property or office development -- is becoming more and more complex everyday. Cost considerations, customer expectations and ever-evolving regulations are creating an environment that breeds confusion and inefficiency. As a developer, architect or builder, you have to develop a trash room environment that works for haulers, tenants, retailers, employees, and yes, even odor.

With the changing landscape of stakeholder demands comes a fair amount of design mistruths and implementation mishaps.

These can best be classified in these categories: cost, convenience and compliance.



Myth: Trash disposal pricing is the same everywhere

FACT: Pricing of trash services is highly irregular. The cause is government, especially local government-granted monopolies called “waste hauling franchises.” These are becoming more common throughout the US, both because of recycling mandates and to provide cities an added revenue stream, through franchise fees.

Prices, established by local governments, may not reflect the standard supply (marginal cost) and market forces that govern competitive markets. That can create strange pricing anomalies that make certain services very expensive. For example, in Austin TX, the implicit cost per lb. to dispose of waste in either a loose dumpster or a roll-off compactor is between 1¢ - 4¢ per lb. However, if you choose a compactor with a small front-load bin, the price per ton goes up 600%! Designing a trash system with a small compactor guarantees much higher disposal prices.



Myth: The primary cost of waste disposal is hauling

FACT: Waste hauling can be expensive but it's only one operating cost. Equally significant are labor costs. Anyone designing a trash system must pay close attention to how much labor will be used to operate the system, and whether the system is as safe as it can be. Safety is becoming more and more important, as the cost for insurance, Workers COMP and missed workdays exponentially rises. A study by a California insurer of its hundreds of public school clients found that the presence of integrated hydraulic lifters on trash compactors eliminated – over a 7 year period – 18,000 employee “lifts and twists” injuries per year. But more importantly, during that same period there is zero (!) garbage-related lift injuries; injuries that previously had been, sadly, all too common.



Myth: Trash systems are just a small part of any building; design mistakes aren't critical

FACT: Square-footage wise, trash systems are a small part of any building, but it does not mean that design mistakes can't be costly. Specifically not making sure bins can be moved to staging areas or trucks not having ample space to pick up containers can create major and costly headaches when the building is put into operation.

Recently a high-end, high-rise in Brooklyn with a trash discharge room in its basement found standard 2-cubic yard receiver containers did not fit into the small freight



elevator. This created enormous problems getting these picked up. Only after much redesign work and the development of custom containers was the issue addressed.



Myth: Quality of life issues are just part of trash

FACT: There's no denying that noise, traffic, pollution and odor are va part of trash. But these problems can be mitigated through proper design. Correctly done, you can make sure lanes are not blocked when garbage trucks are emptying bins or that trash chutes are not noise generating echo chambers.

Odor can be particularly problematic, especially when any type of chute is involved. But again, by setting these up correctly and providing the right technologies, odors can be knocked down or at least directed outward, away from residents and employ-ees.



Myth: Accessibility requirements for trash systems are clear

FACT: Accessibility regulations, as they relate to trash systems, are far from clear. In certain cases, such as a trash chute vestibule in a high-rise apartment building, ADA rules are straightforward. But for trash collection rooms not used by the public, regulations are opaque and their ultimate administration often depends on municipal codes, inspectors' judgement calls and buidling depart-ment's enforcement politics.

In many cases, the best that can be done is simply lay before developers, buidlers and architects, what the design options are in terms of accessibility and allow them to make the determination about how the design pro-ceeds. Making sure the impli-cations and costs of compli-ance are presented correctly and precisely is the best path forward for a development.



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