IPRO 339. Developing Ultra-Low-Cost Sustainable Village for Working Poor in North Mexico from Recycled Shipping Containers

Overarching Principle:
“Improve the standard of living of factory workers in Ciudad Juárez by providing safe, affordable and desirable housing.”

Law:
Canon: We will allow enough time to adequately research local laws.
Pressure: To complete the project within time constraints
Risk: To not become familiar with local laws regarding housing developments
Risk: To not obtain all legally required documents and permits
Measure: Compliance with this canon will be determined by the absence of legal actions taken against participating companies for violating local laws and regulations.

Contracts:
Canon: We will adequately allot funds so that we are not pressured to break contracts to save costs.
Pressure: Keep costs as low as possible in order to be more attractive to potential clients.
Pressure: Pressure to remain on budget with fluctuating prices of materials.
Risk: Cut our soft costs—labor and design costs—reneging on portions of contracts.
Measure: Compliance with this canon will be determined by staying within our budget and positive working relationships with all involved parties.

Professional Codes:
Canon: We will ensure the safety and well being of the occupants by following all professional building codes.
Pressure: Try to fit as many people and amenities into one living unit as possible.
Pressure: Try to have an ultra high density site plan and unit configuration.
Risk: Compromise building codes and user safety by not providing minimum egress, clearance or circulation.
Measure: Compliance with this canon will be determined by an inspection of the completed development by an independent party.
Industry Standards:
*Canon*: We will provide comfortable living spaces that protect the inhabitants from the harsh environment.
*Pressure*: Try to lower hard costs of the unit.
*Pressure*: Try to maximize the amount of interior space available for design within the 8’ wide units.
*Risk*: Not take the location and climate of the site into account and not provide adequate insulation and climate control mechanisms.
*Measure*: Compliance with this canon will be determined by team members ensuring adequate R values for insulation as well as taking into account sun angles, wind rose diagrams and local climate.

Community:
*Canon*: We will strive to create a sense of pride and ownership for residents of the community.
*Pressure*: To create a dense community of stripped-down units in order to bring the cost per unit down.
*Risk*: To create narrow, dark public spaces that would promote unsafe or illicit activity.
*Risk*: Create harsh industrial looking structures that are too impersonal.
*Measure*: Compliance with this canon will be indicated by lower employment turnover rates and reduction in crime.

Personal Relationships:
*Canon*: We will maintain respectful and selfless relationships with team members, sponsors and clients in order to deliver the best possible product.
*Pressure*: To want one’s own project ideas to ultimately be used over another member’s idea.
*Risk*: To not offer full support to someone else’s idea.
*Risk*: To have a prideful and competitive attitude to the detriment of the final product.
*Measure*: Compliance with this canon will be determined by whole-heartedly supporting the design choices chosen by the consensus of the group.

Moral/Spiritual Values:
*Canon*: We will strive to provide dignity and choice to residents of the community.
*Pressure*: To cut costs by not providing sufficient amenities to each living space.
*Risk*: By assuming that the clients’ are satisfied with their current lifestyles, we will not give them the option of modern living conveniences.
*Risk*: Only allowing for one type of living unit which doesn’t take into account for different housing needs or desires.
*Measure*: Compliance of this canon will be determined by design groups providing multiple unit options each having standard amenities.