

Good research paper about green ordinance for a city

[Environment](#), [Nature](#)



The following is a green ordinance for Cloak City. The city shall be one of the Greenest cities in the world and shall be a global leader in the development of green cities across the world. The city has a population of about 80, 000 people and is in its inception stage with plenty of ground to set up new infrastructure for the Central Business District. Other amenities such as office blocks, entertainment areas, administrative offices and all other city infrastructure including the residential buildings to be set up in the outskirts of the city, shall all adhere to several green performance standards. The following is an ordinance or legislations that the municipal authority for Cloak City shall enact as the city grows.

- Reusing and remodeling existing buildings
- Planting trees in areas that are prone to heat generation or retention such as parking lots and driveways
- Selecting building locations that are far away from residential area but near transit options
- Using sustainable products or recycled materials that preserve natural resources
- Constructing buildings in a way that they take advantage of passive cooling and heating methods
- Using Low Volatile Organic Compound (VOC) adhesives, paints and sealants as well as products free from formaldehyde in order to improve indoor air quality.

Policies and requirements

The ordinance shall cover the following projects

- Residential buildings (high-rise and low-rise and hotel buildings)

- Non-residential buildings that have more than 1, 000 square feet floor space or those that bears additions of equivalent value
- Alterations to non-residential buildings that have permit values of \$100, 000 and more.
- Removal of Historic resources and new construction
- Historic alterations and residential additions
- Mixed use construction
- All constructions requiring a landscape plan

Standardized checklist that demonstrates compliance with the 2014 Cloak City Green Building Standards Code (CCBSC)

- Planning and designing- This aspect checks on the overall selection of a site and its orientation on the ground.
- Storm water drainage and retention during construction: All buildings should have a plan for the management of storm water drainage. The site grading shall have a way to manage all surface water flows to keep water from entering into buildings or becoming stagnant
- Re-usage of construction materials-The usage of old construction materials reduces the expenditure of the building and makes it inexpensive. It also retains the durable and high-quality materials from other buildings. Creates authenticity and energy efficiency of the new buildings.
- All reconstructed buildings shall show usage of recyclable materials and salvages from previous buildings as long as those materials are proven as being non-hazardous.
- The most preferable materials shall be bricks, concrete and metals

- Maintenance of operations manual- the manual informs the users of the building on ways and means to use some of the rooms and the special features that they contain. For instance how to set window louvers to allow maximum sunlight and heat into a building.
- All buildings must be maintained with an operations manual in place to optimize informed usage of equipment, fixtures, plumbing systems, and other necessary systems that could affect the maintenance costs of the building.
- Environmental quality-this aspect ensures that the building retains and improves the quality of the environment in which it has been located. Moreover, it should offer the users conduciveness whether they work or reside there.
- Any installed gas fireplace shall be a direct-vent sealed combustion type. An installed pellet stove or wood stove shall comply with the EPA emission limits
- All concrete slabs should have vapor retarder and capillary breaks installed on slab-on-grade foundations
- All floors that receive resilient flooring shall comply with VOC emission limits
- Aerosols paintings and coatings-this aspect ensures that chemicals do not pollute the environment or pose danger to the living organism especially human beings who use the buildings.
- All paints and coatings applied on buildings shall be compliant with VOC limits.
- The necessary documentations shall be required to prove compliance with

VOC limits

- Where composite wood products such as fiberboards and particleboards are used, they shall comply with low formaldehyde emission standards
- All carpet systems shall comply with VOC limits
- Alignment of buildings to the direction of the sun and the wind-This aspect checks on energy efficiency and the insulation aspects of the building in order to being about energy efficiency
- Wherever possible, buildings will be required to be aligned in a direction that they optimize on the usage of natural sun and wind conditions for lighting, heating and cooling the building.
- Wherever possible, trees shall be planted to act as windbreaks and sunbreaks
- The use of reflective materials inside the buildings to reduce the necessity for artificial lighting during the sunshine hours
- The use of thick walls in order to maintain proper thermal control of the buildings to reduce the necessity of artificial heating or cooling
- Designing for deconstruction (DfD) - This aspect checks on the ease with which a building can be demolished and later reconstructed. It is an important aspect noting that the city is growing and in future increments in population may compel massive deconstructions.
- Materials can be joined together in such a way that they allow for deconstruction and intentional recovery of maximum materials.
- The methods and materials needed for successful disassembling shall be documented
- The constructor shall need to use materials of standard sizes, that are

modular and durable

- The connections made shall be simple enough to allow for easy and safe disassembly
- The preservation and unique cultural and historical place- Each city needs to stand out and become identifiable from others and preservation of the culture and historical aspects of a building should be captured in green buildings
- Whenever and wherever possible, all buildings shall be constructed to bear some uniqueness that shows the culture of the city and secure its history
- The buildings shall be constructed to endure harsh weather conditions to ensure that they last for long periods of time
- The unique designs will have to be approved by the municipal council authorities
- The use of low-embodied energy materials-The low embodied materials are energy efficient and they are inexpensive. Their manufacturing is environment friendly and they fit well with green building technologies
- Materials reclaimed from the site or locations near the site shall be preferred
- Materials obtained from the locality shall be preferred in order to reduce transportation requirements and the pollution that comes with the transportation process
- The materials that are transported using means that are less polluting such as trains as compared to trucks shall be preferred
- The building materials should contain recycled content
- The materials should be minimally processed such as stones, wood,

aggregate

- Materials that have high manufacturing processes such as copper, polyvinyl chloride (PVC), bricks, steel and High-density polyethylene (HDPE) are highly discouraged

- Protection of structural soil- the soil around a building should retain its original structure and the excavation of foundations should as much as possible minimize disturbance on the natural structure and profile of the soil.

- Wherever possible, trees shall be planted adjacent to paving surfaces to prevent soil erosion, shade and manage stormwater

- Paved areas shall be paved according to municipal standards to ensure that trees planted near buildings do not destroy the building but retain the soil structure

- Community interaction with nature- In as much as the building is friendly to nature; it should be tailored to have aspects of nature that match with the societal or community needs and expectations.

- Buildings that are to be used by students such as schools, museums and parks should have ample natural vegetation and learning environments where learners can interact with nature

- The buildings also renew a sense of community

- They should be in such a way that they increase vegetative biomass

- The vegetation should be spread as to reduce impervious cover

- Mitigation of urban heat Island- landscape alterations, which are brought about by urban development, can generate and trap heat, thereby, bringing changes to the natural environment. This is known as Urban Heat Island and

it refers to areas of an urban centre that have higher temperatures as compared to their rural surroundings thereby forming “ islands”.

- The landscape alterations should be developed with measures to reduce generation and entrapment of heat which can result in changes to the local climate
- As much as possible, natural landscapes should not be replaced with dark and impervious surfaces such as other buildings or roads.
- High-albedo materials are encouraged- high-albedo reduce the amount of radiations that a buildings absorb.
- All heat-absorbing surfaces such as driveways, roofs, roads and parking lots should be shaded
- Vegetation and air quality-The vegetation near green buildings should aid in energy conservation, retention of the soil structure, purify the air among other issues that conserve the environment.
- Plant species that are encouraged for planting near buildings are casuarinas spp, Eucalyptus spp., Nyssa spp., Robinia spp., Liquidambar spp., Quercus spp., and Salix spp.
- The places most recommended that trees be planted include parking lots and driveways where a lot of heat is generate and the trees shall absorb a lot of the heat and pollution from vehicles

Works Cited

" City of Oakland California." Green Building ~ City of Oakland, California. N. p., n. d. Web. 6 May 2014. .

" Council gives thumbs up to environmental program: ALBANY: Three

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ordinances at center of effort to promote green building projects.” Contra Costa Times 25 Nov. 2006: 12. Print.

" Green Building Ordinance." Department of Building Inspection. N. p., n. d. Web. 6 May 2014. .