



**Louisiana
Department
Of
Environmental
Quality**

Office
Of
Environmental
Assessment

Nonpoint
Program

**MODEL LANDSCAPE CODE
FOR LOUISIANA TOWNS AND CITIES**

Abbey Associates, Inc.
Planning Consultants
Baton Rouge – New Orleans

Editor's note: Depress Ctrl Key and Click Link to activate where noted as [Landscape Regulations](#).
All linked documents must be kept in the same Folder to keep links active.

INTRODUCTION TO THE MODEL CODE

[Landscape regulations](#) are enacted by communities to encourage better site design and more responsible development to the end that society's needs are satisfied while nature is protected, preserved or rebuilt within urbanizing areas. Each community benefits by keeping natural systems a functioning part of the infrastructure of a city. Natural systems such as vegetation, water, soil, wildlife and climate provide important environmental services for society. Nature in the city works to cool the climate, clean surface water, filter the air, maintain soil structure, remove pollutants and enhance visual quality. Nature in the city is important for mankind's happiness and health. Studies have shown that nature maintained within the city can save taxpayers millions of dollars by reducing storm water management costs, cleaning the air, lowering ambient temperatures and thereby utility costs and reducing sedimentation pollutant transport. Each building site in a community should do its part in preserving or rebuilding natural systems. This code will assist.

The [landscape code](#) presented here, in its simplest description, is a set of community development policies in the form of zoning ordinance standards that require sensible site planning to reduce environmental and visual impacts to neighborhoods in urban communities. Landscape codes adopted by American cities may contain a variety of design standards that affect landscaping, on-site storm water management, habitat preservation, tree protection, water conservation and irrigation use requirements. These are typical municipal green policies generally found in this type of ordinance that will pay dividends to communities, citizens and developers alike.

Strategies suggested in the model code allows nature to remove from the traditional storm water conveyance system such unwanted elements as suspended solids, trace metals, total nitrogen, total phosphorus, bacteria, organic material, nutrients, litter, yard and animal waste. The EPA has identified ninety-four (94) contaminants that are moved from place to place by storm water flows. Storm water moves pollutants from unidentified sources such as developed land into public conveyance systems and then into fresh water bodies. This is what non-point pollution is and why it can affect our surface waters, wells and underground water supplies if left unmanaged.

Finally, the model will allow communities to broaden their storm water management regulations by supplementing traditional methods of centralized storm water management, conveyance and disposal by promoting a [decentralized storm water management](#) approach where a proscribed percentage of site rainfall is captured on site. This site sensitive approach works to detain, filter, evaporate, absorb and infiltrate a percentage of storm water where it falls, rather than convey it to centralized disposal areas at public expense. Decentralized rainfall management uses a series of [storm water best management practices](#) (BMP's) that reduce the use of traditional catch basins, manholes, underground pipe, head walls and off site disposal into drainage ditches and then into fresh water bodies. Instead, storm water BMP's use natural filters, soil, sunlight and vegetation, (natural systems) as the primary means of disposing of rain water in environmentally friendly ways. Natural methods using storm water BMPs do this by modification to land surfaces that change run off characteristics, increase time of concentration and amount of infiltration.

This model landscape code is a site development friendly method that encourages developers to landscape their development sites in combination with non-structural storm water best management practices in such a way as to maintain existing run off rates at predevelopment levels while at the same time adding to the visual appeal of the property through the use of landscape plants and design. This method of site construction favors nature and works to utilize natural methods for controlling site development impacts while at the same time reducing development costs. LID principles driving the development of this code include a) better site design, b) minimization of [impervious surfaces](#), c) protection of natural drainage features and existing tree vegetation, d) reduction in land disturbance activities, e) promotion of low maintenance landscaping that reduces the use of herbicides, fertilizers, pesticides and lawn grass, f) protection of stream banks and lake edges, and g) increases storm water 'time of concentration' at site outfalls. The emphasis of the LID storm water best management practices in this code is on the use of ['non-structural' storm water best management practices'](#) as defined by the Environmental Protection Agency. Non-structural methods, which also can be called 'micro-methods' of storm water management, are best used on small parcels of land where available space is limited and decentralized drainage is practical and efficient. This is often the case in the city and suburban fringe where landscape codes are utilized for better land use practices and site design performance on small sites generally less than five (5) acres in extent. Non-structural methods do not use complicated engineering formulas to calculate water flow and capture and release. Non-structural methods are designed according to the principle that trapping rainwater where it falls, or close to where it falls, reduces the volume headed downstream. In addition, when rain water is conveyed off site to down stream disposal areas greater

amounts of land and expense are needed for its management. This code shows how small planted areas set aside on every development site can collect rainfall volumes that exceed an average design storm.

These micro-methods of storm water management rely upon ground shaping, surface material selection, recharge capability improvement and vegetation plantings to modify the infiltration capabilities of grassed landforms, beds and planted buffers. These earth friendly methods that replicate nature's methods of storm water management make it easy for landscape architects, engineers or contractors to design site facilities to better detain, retain and infiltrate storm water. Landscape design practices also make it easy for landscape contractors who build and plant project sites to manipulate ground surfaces to capture rainfall. Non-structural methods allow for better site design, open space design, urban forestry, buffer zones, zoning and ordinance compliance all of which are common procedures for managing minor storm water flows.

The secondary purpose of this model landscape code is to assist communities in enacting design standards for better site development in regard to landscape design, landscape construction practices and earth friendly site maintenance methods.. Through better landscape design, natural habitats can be preserved, building sites can be adequately buffered from public streets and adjacent conflicting land uses and parking lots can be built that cool the climate, filter the air and absorb storm water. Landscape codes better define the design of yard area of building sites as used in zoning practice. The code will require better plantings, effective screening, wiser irrigation water use, increased water conservation by harvesting and sounder landscape construction and maintenance practices. Landscape codes are written with an understanding of building site geography where each part of a site from street yard to outdoor storage areas to site service areas to sign monument zones have proscribed uses that require vegetation plantings. Communities that adopt landscape ordinances set design standards for these various site spaces that comprise the geography of a development site. These communities are better places to live.

Storm water management and landscaping are very complementary on any development site. This model code will bring together two aspects of site development that are usually covered by separate development codes within a community's set of zoning and development ordinances.

STRUCTURE OF THE MODEL CODE

The landscape code presented here is often referred to as a 'Part' or 'Chapter' of some important a municipal law such as the municipal code, zoning ordinance,

land development regulations, or the building code. These are the significant policies or design codes which control community development, land conversion or civil infrastructure. Subsections of the Part consist of 'titles,' 'sections,' 'subsections,' 'minor sections,' 'headings,' and sub-headings of the policy. Parts are often written by 'title' that describe specific regulations. These regulations are clarified by 'sections,' 'subsections' and as many 'headings' or subheadings' as needed, These regulations are best grouped together to make the laws more readable and understandable.

The model used here assembles the information by 'context', 'technical standards', and 'administrative procedures.' Together, they very narrowly and clearly describe the regulations and what is expected, who is involved and the criteria by which activities and actions are judged. They are presented in the code in sequence to allow for ease of reading and interpretation.

The context, technical standards and administrative procedure are presented sequentially in the following model code for ease of readability.

The 'context' sets the parameters of the code. Context generally relates the code to enabling legislation, other community codes and important needs that the code is designed to address. 'Technical standards' consist of 'design components' and 'technical requirements' that cover landscape design, storm water management technology, irrigation design, tree preservation, planning and preparation of landscape plans. There are largely technical matters and design guidelines that concern professionals such as landscape architects, engineers, architects, contractors and builders all of whom are called upon by property developers to assist in the conversion of land to new development or redevelopment. The 'administrative procedures' are the enforcement and public service mechanisms of the model and this part of the code specifies management routines for administration of the code including ([Design Manual\(s\)](#)), personnel, plan reviews, site inspections and issuance of permits for tree removal, building and occupancy.

"Technical standards" which are the central purpose of this model code cover two broad areas that consist of general landscaping and planting requirements as well as on site storm water management strategies that will increase the amount of storm water that is captured, stored and infiltrated upon the development site.

The former is involved with typical landscaping design components such as 'street yards,' 'buffers,' 'vehicular use area' and 'tree preservation' all of which are carefully defined within [Sec. 17-4.A.1-9](#) that follows. The latter, the storm water strategies covers on site storm water capture and disposal through the

innovative use of storm water BMP's such as sand filters, rain gardens, micro-detentions, vegetative swales, roof top disconnections and underground storm water chambers. Storm water management technical standards can be seen in **Sec. 17.8.A.10**. These standards are complemented by standards for irrigation, water conservation, land clearing, tree preservation and habitat protection. Landscape, irrigation, tree preservation plan preparation requirements are treated incidentally to these main topics.

A third element of this model ordinance deals the 'administration procedures' of the code. This perhaps is the most important part of a workable public ordinance. A well thought out administrative procedure managed by a well trained inspection staff allows developers, builders, designers and the general public to know what the code expects and what steps must be taken by the applicant for plan review, approval and permit release. Sections have been added within the administrative procedures part of this model to organize a public advisory commission known as a Tree and Landscape Commission who will work with municipal staff on all issues associated with this ordinance. Administrative procedures establish criteria for selection of Commission members and appointment of a Director to oversee the natural resources of a community. A person who does this should be called a CEO, or chief environmental officer. This person would be someone highly trained in the facets and methods of nature that may be a landscape architect, arborist, urban forester, natural scientist or other qualified individual. Sections within this part of the code provide support to the development community through education programs, plan review, permit procedures and working with the development community to find better ways of site design and storm water management while meeting the requirements of these policies.

Model Landscape Code-Design Standards State of Louisiana

Louisiana Department of Environmental Quality
Baton Rouge, Louisiana

2009

Model Landscape Code

Containing On-Site Storm Water Management Standards State of Louisiana

Model Landscape Code-Design Standards

DEQ-EPA v. 24
8.04.09, 2009

Key

Flexible administrative standards in Blue Text
Flexible design standards in Orange Text
Notes and call outs in Red Text
Code Documents in Underlined Text
Reference Documents in *Italic Text*
Local Code Option within (-----)

Outline To the Model Landscape Code (click on the link)

Sec. 17.1. Recitals, Purpose & Intent

Sec. 17.2. Applicability of Landscape Requirements

Sec. 17.3. Definitions (also see Appendix & Exhibits)

Sec. 17.4. Landscape Design and Storm Water Management Standards

Sec. 17.5. Landscape Design, Irrigation, Storm Water and Tree Preservation Plan Preparation Standards

Sec. 17.6. Alternative Compliance

Sec. 17.7. Administrative Procedures, Permits And Inspection Requirements

Sec. 17.8. Administrative Guidelines & Design Manual

Sec. 17.9. Penalty For Violation Of Part.

Sec. 17.10. Enforcement, And Appeal

Sec. 17.11. Director, Staff and Tree And Landscape Commission

Sec. 17.12. Part Supplementary To Other Ordinances.

Sec. 17.13. Conflicts

Sec. 17.14 Severability

Sec. 17.15. Effective Date

Enrollment

Appendix A - Design Manual (Design Manual)
Definitions, Design Standards, Illustrations and Miscellaneous Exhibits (To be prepared by the community)
2009

Chapter 17
Community Landscape Code
Landscaping and On-Storm Water Management, Design Standards

Section 17.1. Recitals, Purpose and Intent

A. Whereas the purpose of this Part is to provide minimum landscaping and on-site storm water management requirements and controls to protect and enhance the community's environmental, economic and aesthetic resources consistent with the goals of the (Local Comprehensive Plan), and the (*State of Louisiana Department of Environmental Quality, Louisiana's Non-point Source Management Plan, Vol. 6., Office of Environmental Assessment, 2000*) thereby promoting the public health, safety and general welfare of the citizens and contributing to the quality of life by encouraging a high level of design in the development in the Municipality.

B. The (Municipal Council) has determined that the use of urban storm water Best Management Practices and on-site storm water management procedures is critical to the public health, safety and welfare of this community by setting standards of landscape sustainability with particular emphasis on trees, the urban forest canopy and vegetative cover of the land pursuant to the authority of *Louisiana Revised Statutes RS 3:4384*, the Urban Forestry Act 1980, No. 746, §1.

C. Further, the standards, requirements and administrative procedures of this Part seek establish city wide management of natural resources through the establishment of an administrative program properly staffed and managed to promote the preservation, protection and enhancement of nature's unique features and resources with particular emphasis on the urban drainage system and its network of swales, settling basins and streams including forest canopy floor, open water resources and existing wetland patterns consistent with appropriate requirements of (Section 404 of the Clean Water Act) and the (National Environmental Policy Act.)

D. Lastly, landscape design standards contained within this Part are found by the (Municipal Council) to be consistent with recognized urban design zoning practices that will promote harmonious and sensitive site development though the use of landscaping

E. Section 17 of the [Unified Development Code](#), a section of the [Municipal Code](#) shall be known as "The Community Landscape Code" and will consist of minimal site design standards for landscaping, tree preservation and on-site storm water management for all zoned districts included herein.

Section 17.2 Applicability of Landscape Requirements

A. The provisions of this Part shall apply to specific areas on real property known as planting areas or storm water management areas within certain zoning districts of this community. Specifically:

B.. Applicability of Landscaping and On-site Storm Water Management Provisions and design standards of this ordinance shall apply to all new development and redevelopment projects for which a (Zoning, Conditional Use Permit, Tree Removal or Building Permit) is required. This code shall apply to all sites that disturb more than one (1) acre (43,560 SF) of land area.

C. Exemptions. The following development activities are exempt from the provisions of this Ordinance and the requirements of providing on-site storm water management controls:

- 1) Agricultural land management activities within the city;
- 2) Development, additions or modifications to existing single family detached residential structures.
- 3) Developments that do not disturb over one (5000) square feet of land area;

4) Land development activities that the (Landscape Administrator) determines will be regulated under specific Federal or State laws, which provide for managing storm water run-off or providing site landscaping.

D. Waivers to Storm Water Management Requirement. Certain land uses with comprehensively designed storm water management systems shall be waived from the storm water management aspects of this part if:

1) The projects are of mixed-use zoning or planned use development zoning within areas where watershed management plans have been developed and approved by the (Water Resources Office of the Louisiana Department of Environmental Quality).

2) If the projects have been designed in a comprehensive manner and this design is documented in an engineering design report that has been approved by and filed with the (Director of Public Works).

Section 17.3 Definitions

A. For the purpose of this Ordinance, definitions are included within the (Design Manual) for convenience.

Section 17.4 Landscape Design and Storm Water Management Design Standards

A. The following areas of zoned lots and tracts of land defined by the (Planning Commission), and as seen in the Appendix A, Illustration no. 1-Landscape Design and On-site Storm Water Management Design Components attached, shall be designed, planted and maintained in accordance with commonly accepted site design practices and technical standards for landscaping, irrigation, water conservation, tree preservation and on-site storm water management as set forth herein in Sec. 17.4.A and in the Design Manual.

1) The following landscape areas and their design standards shown in the links below shall be considered in the arrangement and layout of each building site within the community for which this code applies.

- | | |
|--|-------------------------------------|
| a) Canopy Preservation Standard-Open Space Planting, | Design Standard 1. |
| b) Street Tree Planting Area | Design Standard 2. |
| c) Street Yard Buffer Planting Area | Design Standard 3 |
| d) Landscape Buffer Planting Area | Design Standard 4. |
| e) Vehicular Use Area Interior Planting & Shading | Design Standard 5. |
| f) VUA Screens | Design Standard 6. |
| g) VUA Detention | Design Standard 7. |
| h) VUA Drive Through Service Area Secondary Business Elevation | Design Standard 8 |
| i) Landscape Screens | Design Standard 9 |
| l) Habitat Preservation Area, Tree Protection Area | Design Standard 10. |

2) The following site design standards must be met in the design of landscape areas for all sites in compliance with this code.

- a) Landscape areas (LA) for landscaping and water management shall consist of a minimum of minimum of twenty (20) percent of the permeable area (PA) of the site. LA/PA=20. Minimum width of any landscape area shall be six (6) feet.
- b) VUA Interior planting area shall be a minimum of fifteen (15) percent of the total VUA area distributed within islands, peninsulas or medians with no parking space more than sixty (60) feet from a planted area.
- c) Minimum size of the VUA Detention shall be 1/12 the area of the VUA VUA/12= 8%
- d) Minimum tree canopy shall be seventeen trees per acre.
- e) Class A trees shall not be spaced closer than 40' oc., Class B trees 30' o.c., Class C trees 15' oc.
- f) Spaces shrubs 36" to 48" apart based upon species and nursery stock size of 7 gal and 3 gal.
- g) Ground covers shall be a minimum of one gallon size.

B).The following On-site Storm Water Management Facilities (BMPs) and their design standards shall be designed according to recommended, dimensions, slopes, materials, planting standards, specifications, performance requirements and character as shown in the shown in the links below shall be installed within landscape planting areas, below parking areas, and in other site open spaces as needed to manage on-site storm water. Recommended storm water management facilities include but are not limited to;

1) The following vegetation enhanced storm water best management practices (BMPs) are defined by both detail description and design standards within the (Design Manual). Storm water BMPs shall be designed for use within the (Municipality) for all developments falling under the applicability of (Chapter 17) to improve water quality by cleaning or reducing off site flows by filtering, capturing, infiltrating, evaporating, transpiring, harvesting or recycling a proscribed design storm volume consistent with the first flush (WQ) of an average rain storm. WQ shall be considered one (1) inch of rain fall but subject to adjustment by the (Director of Public Works).

a) Micro-detentions (Rain Gardens, Rain Groves)	Design Standard A.
b) Constructed wetlands	Design Standard B.
c) Planted storm water buffers	Design Standard C.
d) French drains, infiltration trenches & columns	Design Standard D.
e) Sand filters	Design Standard E.
f) Bioswales (Grasses swales, Ditch Gardens)	Design Standard F.
g) Porous paving and Structural Soils	Design Standard G.
h) Irrigation cisterns or underground storm water chambers	Design Standard H.
i) Retained natural wetlands	Design Standard I.
j) Preserved forest floor (habitat protection areas HPA)	Design Standard J.
k) Stream bank or riparian buffer	Design Standard K.
l) Irrigation Hydrozones	Design Standard L.
m) Engineered Detention Ponds, Retention Ponds	Design Standard M.
n) Parking Lot Detention	Design Standard N.
o) Public Safety	Design Standard O.

2) The following site design standards must be met in the design of storm water best management practices (BMPs) and landscape areas for all sites in compliance with this code.

- a) Permeable area (PA) of each building site consisting of some combination of landscape areas (LA), habitat protection areas (HPA), tree protection areas (TPA) and porous paved areas (PP) shall consist of a minimum of forty (40) percent of the total site area (TSA). $TSA/PA=40$ or
- b) The capture rate (CR) for on-site storm water management shall be a minimum of forty (40) percent of design storm filtered, infiltrated transpired, evaporated or recycled on site.

B. The following minor technical standards for arboricultural, horticultural, landscape installation, irrigation, maintenance and plant material as seen in the links below shall be enforced by the landscape administrator, and (Building Official) by requiring their inclusion as specifications in the preparation of landscape plans prepared pursuant to Sec. 17.5 of this Part. (See (Landscape Design, Irrigation and Tree Design Manual) for technical design requirements for each standard.

1). Landscape Installation.	Minor Standard 1.
2). Single Trunk Tree Standard.	Minor Standard 2.
3). Multi-trunk Tree Standard.	Minor Standard 3.
4). Shrub Size and Quality Standard.	Minor Standard 4.
5). Ground Cover and Vine Size and Quality Standards.	Minor Standard 5.
6). Evergreen Plant Material Standard.	Minor Standard 6.
7). Palm and Tropical Plant Material Standards.	Minor Standard 7.
8). Native Tree and Shrub Standard.	Minor Standard 8.
9). Prohibited and Nuisance Plants.	Minor Standard 9.
10). Bed Prep & Mulch Standard.	Minor Standard 10.
11). Drainage Provision Standard.	Minor Standard 11.
12). Staking Standard.	Minor Standard 12.
13). Trim Pruning Standard.	Minor Standard 13.
14). Irrigation and Watering Standard.	Minor Standard 14.
15). Planting Area Standard.	Minor Standard 15.
16). Landscape Best Management Practices (LBMP).	Minor Standard 16.
17). Wetland and Facultative Plants Standards.	Minor Standard 17.
18). Turf Grass and Installation Standard.	Minor Standard 18.
19). Chemical Use.	Minor Standard 19.
20). Lawn Maintenance.	Minor Standard 20.
21). Recycling, Composting and Forest Litter.	Minor Standard 21.
22). Lawn & Garden Conservation Standards	Minor Standard 22.
23). Wildlife Habitat	Minor Standard 23.
24). Improve Water Quality	Minor Standard 24.
25). Reduce Energy Consumption	Minor Standard 25.
26). Structural Soils For Parking Lots and Pavements	Minor Standard 26.

- 27). Wicked Plants and other Prohibited Vegetation [Minor Standard 27.](#)
- 28). Protected Trees [Minor Standard 28.](#)
- 29) Recommended Plant Lists [Minor Standard 29.](#)
- 30) *Wicked Plants*, Dangerous, Poisonous, Deadly or Toxic [Minor Standard 30.](#)

These standards shall be applicable to all site development landscape design and specifications covered by this part. Each design component when installed or constructed must meet the minimum technical requirement as set forth in the (*Design Manual*).

C. Plant Material Maintenance. Complete technical requirements for the maintenance of plant materials and landscape are included in the (*Design Manual*) and can be seen in the links below. Basic maintenance standards include:

- 1. Watering [Horticulture Standard A.](#)
- 2. Mulching [Horticulture Standard B.](#)
- 3. Staking [Horticulture Standard C.](#)
- 4. Fertilizing [Horticulture Standard D.](#)
- 5. Pruning [Horticulture Standard E.](#)
- 6. Bed Construction [Horticulture Standard F.](#)
- 7. Edging [Horticulture Standard G.](#)
- 8. Irrigate Efficiently [Horticulture Standard H.](#)
- 9. Pest Control and Pesticides [Horticulture Standard I.](#)
- 10. Waste Disposal & Recycling [Horticulture Standard J.](#)

D. Storm Water BMP Maintenance. Complete technical requirements for the maintenance of storm water facilities shall be provided in the (*Design Manual*). Basic standards seen in the links below include:

- 1. Storm Water Facility Inspection [Facility Maintenance A.](#)
- 2. Minimum Maintenance [Facility Maintenance B.](#)
- 3. Vegetation Management [Facility Maintenance C.](#)
- 4. Structural Inspection [Facility Maintenance D.](#)
- 5. Testing and Functional Inspection [Facility Maintenance E.](#)
- 6. Failure to Maintain [Facility Maintenance F.](#)

E. Native Tree Protection, Credit and Removal Standards: Existing trees to be preserved may be credited towards the landscape materials required by this part as explained within the (*Design Manual*). Basic tree standards can be seen in the links below and include:

- 1. Tree Survey Standard [Tree Standard A.](#)
- 2. Tree Marking Standard [Tree Standard B.](#)
- 3. TPA Identification Standard [Tree Standard C.](#)
- 4. Tree Protective Fencing [Tree Standard D.](#)
- 5. Tree Protection Signage [Tree Standard E.](#)
- 6. Prohibited Activities in TPA [Tree Standard F.](#)
- 7. Tree Barricade Construction Standard [Tree Standard G.](#)
- 8. Trenching, Excavation Around Trees to be Preserved [Tree Standard H.](#)
- 9. Tree Planting [Tree Standard I.](#)
- 10. Protected Tree List [Tree Standard J.](#)

Section 17.5 Landscape Design, Irrigation, On-site Storm Water Management Facilities and Tree Preservation Plan Preparation Standards.

A. All Building Permit applications covered by this landscape code shall be accompanied by landscape plans, details and specifications to comply with the conditions of this code. In addition to meeting (*Louisiana Horticulture Law requirements of Title 7, Part XXIX, Chapter 1-Horticulture, and Louisiana RS, Acts 1950, No. 224*), building permit applications on commercial, multi-family, institutional and industrial lots of more than (fifteen thousand (15,000) square feet) shall have landscape plans prepared by a (Louisiana) licensed Landscape Architect. The landscape plans shall meet the standards set forth in the *Design Manual* and the *Storm Water Design Manual* and shall bear an authorized seal and signature. All landscape plans shall contain a statement on the drawings certifying that the plan was prepared in accordance with (*Louisiana Horticulture Law*) and the provisions and specifications of this Part.

B. Landscape plans shall include such landscape plan design criteria that may be required by the (landscape administrator or Building Official) to interpret the extent of the permit

application and its compliance with this ordinance. These criteria are included with the (Design Manual) and may be revised from time to time as needed.

- 1) Provide a Landscape Tabulation Summary Schedule similar to that shown in *Exhibit A* of the Design Manual and pursuant to this section showing required quantities of plant material, extent of plant beds, irrigated areas, mulched areas, grassed areas, gross and net acreage, square footage of protected tree area, numbers of trees and clusters of trees to be protected and open space ratio within the developed area of the site and within perimeter areas and square footage of vehicular use areas and total number of parking spaces.

C. Storm water Management Plan Required and Requirements for Storm Water Management Plan Approval

- 1) On-site storm water management plan required. Unless exempted by this section, no land falling under this Part of the (Zoning Ordinance) shall be developed or cleared for multi-family residential, commercial, industrial or institutional use until the (Director of Landscape and Forestry), after consultation with the (Director of Public Works), has approved an on-storm water management plan showing storm water management facilities for that land pursuant to the procedures set forth in this Part.

- a) The on-site storm water management plan shall contain sufficient specifications and detail to ensure compliance by builders and contractors with the storm water management facilities and water conservation procedures set forth in this Code as well as applicable Storm Water Design Manual.

- 2) No (building permit or occupancy permit) shall be issued for any property until an approved on-site storm water management plan showing all proposed on-site storm water management facilities, artificial drainage systems and connections to public storm water conveyance systems or sanitary systems have been approved and accepted for that property, and a developer's agreement binding all land owners and future owners and indicating perpetual compliance with on-site storm water management procedures and maintenance of landscaping, irrigation, water conservation and storm water best management practices has been executed, consistent with the requirements of this subtitle and (the Storm Water Design Manual, The Design Manual, all (Municipality) applicable zoning laws, State developmental laws and Federal water quality laws).

D. Permitting: Paperless permitting is encouraged to speed up review, approval and the permitting process to ensure that development in the (Municipality) is unhindered by public review.

E. Certification: Prior to issuance of a Certificate of Occupancy and release of any fiscal security that may be required, the Owner shall provide to the (Director of Landscape and Forestry), a Certificate of Completion prepared by the Landscape Architect who drew the landscape plans and on-site storm water management plans certifying that the project has been implemented in accordance with the approved plans and in compliance with the provisions of this ordinance.

Section 17.6 Alternative Compliance

A. The landscape design standards and on-site storm water design standards contained in Section 17.4 are intended to encourage development, which is economically viable, aesthetically pleasing and environmentally sensitive. Project conditions associated with individual sites may justify approval of alternative methods of compliance when normal compliance is impractical or impossible.

B. Requests for alternative compliance will be accepted for any permit application to which the requirements of this Chapter of the (Unified Development Code) apply.

C. A request for alternative compliance shall be submitted in writing by a licensed landscape architect to the landscape administrator at the time the landscape plans are submitted.

Section 17.7 Administrative Procedures, Permits and Inspections Requirements

A. Permits. Prior to any clearing of tracts of one (1) acre or more, the property owner shall obtain appropriate permits from the (Department of Public Works) and the (Director of Landscape and Forestry).

1). Tree Removal Permit Property owners are required to identify native trees of certain sizes and species on project sites and to seek the assistance of the landscape administrator in preserving or protecting trees defined in this ordinance as a 'protected tree.' A tree removal permit is required when the following conditions are present;

a) Tree removal is for proposed commercial, office, industrial, institutional development(s) or

b) Tree removal is for proposed residential development(s) greater than five (5) acres in size.

2). Tree Removal Permit is not required for any parcel of site when the following conditions are present:

a) The tree removal is exclusively for a single-family residential site.

B. Tree Removal Permit: A person shall not cause, permit or allow the removal of any protected tree or significant pruning of any major limb or leader over ten (10") caliper without first obtaining a Tree Removal Permit from the landscape administrator. Nuisance trees and under story vegetation may be removed on all tracts of land less than five (5) acres in size by the use of hand methods but a Tree Removal Permit is still required before proceeding with site clearing.

1) A tree removal permit shall cost (two hundred-fifty (\$250.00) an acre) for any site over five (5) acres. The money for this permit will be deposited in a (Tree and Landscape Trust Fund) ⁵ and will be used exclusively for urban forestry and community landscape enhancements.

2) Certain native tree species and sizes set forth in the Design Manual shall be considered as "protected trees" in this community and permits are required for their removal and replacement.

3) Approved replacement of protected trees shall be mitigated at the factor of 3:1 requiring for every three (3) caliper inches DBH of tree legally removed one (1) DBH inch of a similar native species shall be replaced on the site from where it was removed. If land is not available then the property owner can mitigate to a public site as directed by the landscape administrator or mitigate with a cash contribution as determined by rule to the Tree and Landscape Trust Fund.

C. Building Permit and Certificate of Occupancy. Building Permits are required for all construction, renovation and improvements to land within the zoned area of this community. Fees will be collected based upon the Building Permit Fee schedule approved by the Municipal Council and posted at the Office of Permits and Inspection.

1). Prior to the issuance of the Certificate of Occupancy by the (Building Official) the owner or developer of non-residential lots over five thousand (5,000) square feet shall have the design professionals who prepare the plans and specifications certify with his/her signature in an affidavit that the landscaping and on-site storm water management facilities have been installed in accordance with the (Municipality) approved plans and specifications and all applicable state or local laws.

D. Landscape Plans, Tree Survey and Tree Preservation Plan, if required, and a copy of a Tree Removal Permit shall be submitted to the (Building Official) along with the Building Plans when applying for a commercial Building Permit. The Landscape Plans shall be reviewed and approved and a written Landscape Plan Approval Certificate issued by the landscape administrator prior to issuance of the Building Permit and the beginning of site construction.

E. Inspection of Storm Water Management Areas, Maintenance and Repair.

1) Maintenance of storm water facilities and their ability to manage surface runoff begins at the time of site development, or redevelopment and continues in perpetuity with covenants placed on the property and contained with deed restrictions and or developer's agreements.

2) Right-of-Access.

Conditions of issuance of a building permit shall require that municipal landscape inspectors be given right-of-access to any permitted site by landowner or the permit applicant for purposes of inspecting storm water BMPs and related facilities.

a) Right-of-Access Inspection. Storm water management areas may be inspected by the City any time they are installed on private property, or when any new drainage connection is made between private property and a public drainage system, drainage ditch or canal, sanitary sewer or combined sewer.

3) Minimum Requirements for Maintenance

The maintenance easement agreement requires that all storm water management facilities undergo, a monthly and annual inspection to document maintenance and repair needs and ensure compliance with the requirements of this ordinance. These needs may include periodic removal of silt, litter and other debris from all storm water management areas, vegetation management, rodent control and necessary maintenance or replacement of any ornamental landscape vegetation. In addition, catch basins, inlets, traps, sinks, conveyance pipe and all filters, sand, gravel, stone, organic or structural materials should be inspected at least every twenty-four (24) months and reconditioned as needed but as a minimum once every five (5) years.

Section 17.8 Administrative Guidelines & (Design Manual)

A. The (The Director of Landscape and Forestry) shall publish design and administrative guidelines to this (Chapter of the Zoning Code) which will be referred to as The Design Manual.

1) Specific Design Criteria

The basic design criteria, methodologies, and construction specifications, of the (Design Manual) shall be those referenced in this Part as well as the State of Maryland Storm Water Design Manual ^(Note 2) which will be a supplement to these design standards.

2) The (Municipality) will additional policy, criteria and information, for the proper implementation of the requirements of this section. This information will be provided in the form of standard construction details, and other engineering and design specifications that include a list of acceptable on-site storm water treatment practices, including specific design criteria for each storm water practice as well as a suggested plant material list. The manual may be revised from time to time, by the (Municipality), based on improvements in design technology, science, monitoring, and local maintenance experience. Storm water treatment practices that are designed and constructed in accordance with the Design Manual, design and sizing criteria will be presumed to meet the minimum water quality performance standards of the (Municipality).

3) For the purpose of this Ordinance, the following technical documents are incorporated by reference to be used as technical data and storm water design manuals for the design of storm water management facilities:

a.). The (2000 Maryland Storm water Design Manual Volumes I & II Maryland Department of the Environment, April 2000) is incorporated by reference by (governing authority/agency) and shall serve as the official guide for storm water principles, methods, and practices.

b). *USDA Natural Resources Conservation Service Maryland Conservation Practice Standard Pond Code 378 (January 2000).* (State of MD)

c). *State of Louisiana Department of Transportation and Development, Hydraulics Manual, 1987 or latest edition*

d). *State of Louisiana Department of Environmental Quality, Louisiana's Nonpoint Source Management Plan, Vol. 6. Office of Environmental Assessment, 2000.*

4) Best Management Practices

The community may adopt and make available recommended local non-structural storm water best management practices (BMP's), and landscape best management practices (LBMP's) that are suitable for implementation within the confines of the community landscape ordinance

5) Construction, Installation, Arboricultural and Horticulture Details

Construction details for the implementation of landscaping; irrigation; storm water best management practices; trees, shrubs, ground covers, ground cover products, products, tree protection, planting, pruning and care; or other appropriate site construction technology shall be approved as standardized details as recommended by (the State of Louisiana Horticulture Commission, The Louisiana Landscape And Nursery Association (LLNA), LSU Ag Center, International Society of Arboriculture (ISA) or other recognized authority) acceptable for use of implementation of these regulations, or other such alternate details that may be recommended by registered or licensed landscape architects, architects, arborists, horticulturists or professional engineers.

B. Changes or modifications to the Landscape Design Standards contained in this Part or within any design manual used to satisfy this Part shall originate with the (Tree and Landscape Commission), and approved by majority vote of the (Planning Commission) with final approval by the (Municipal Council) following public hearings.

C. The Municipality through the (Inspection Division of the Department of Public Works) shall be authorized to collect a (one hundred (\$100.00) dollar) application fee to cover processing charges. The application fee shall be included in the total building permit fees as required for the implementation of this (Zoning Code). These fees so collected shall be directed to the (Municipal Tree and Landscape Trust Fund) or other such fund designated for purposes of managing the urban forest of the Municipality.

Section 17.9 Penalties for Violation of Part

A. Violation of this part shall be considered a misdemeanor. Any person violating any of the provisions of this Part shall, upon notice of violation, revocation of Certificate of Occupancy, appeal, settlement and or conviction, be fined not less than (two hundred-fifty (\$250.00) dollars), nor more than (one thousand (\$1,000.00) dollars), or be imprisoned not more than (thirty (30) days), or both for any violation of this Part.

Section 17.10 Enforcement and Appeal

A. The (Building Official and City Attorney) may enforce the requirements set forth in this Part and shall have the authority to revoke, suspend, or void any (Clearing Permit, Tree Removal Permit, Building Permit or Certificate of Occupancy) or to request that the (Director of Planning And Zoning) suspend approval of a (Site Plan, Final Plat, or Conditional Use Permit) whereby suspending all work on a site or use of a site of any portion thereof, where tree removal or damage occurs in violation of this Part. Assistants to the (Building Official) the (landscape inspection staff) also shall be

responsible for performing necessary site inspections to determine if the required tree preservation policy is being followed the landscaping has been installed correctly and is being maintained and that storm water measures are functioning according to the approved (Landscape Plan, Tree Preservation Plan, Storm Water Management Plan or Tree Removal Permit).

B. The (Director of Landscape and Forestry) who must be a Landscape Architect registered in the State of (Louisiana), as the landscape administrator shall review each (Landscape Plan, Irrigation Plan, Tree Preservation Plan, On Site Storm Water Management Plan) and within ten (10) days from receipt of such plan either approve or issue a written denial.

C. Any applicant whose Landscape Plan is rejected may appeal to the (Tree and Landscape Commission) within thirty (30) days of written notice of rejection. The appeal must be in writing and fully state the reason or reasons for the appeal. A copy of the Landscape Plan and other documents submitted to the (Building Official) must also accompany the appeal.

C. Upon the receipt of an appeal, the (Tree and Landscape Commission) shall first hear the appeal at their next scheduled meeting, provided that notification has occurred at least fifteen (15) days prior to any scheduled meeting. The Commission shall notify the applicant and the (Building Official) of the scheduled date of the hearing. The Commission shall establish rules and regulations for its own procedure at the hearings.

D. A decision of the (Tree and Landscape Commission) to affirm, modify or reverse a decision of the (Building Official) shall be in writing and shall set forth the reasons therefore. The decision shall also specify the conditions upon which the modification is made.

E. A decision of the (Tree and Landscape Commission) may be appealed to the Zoning Code Board of Adjustment and then the (Municipal Council) according to procedures established in the (Municipal Code of the Municipality of _____) and as state law may require.

Section 17.11 Director, Staff and Tree and Landscape Commission

A. There is hereby created and established the (Tree and Landscape Commission), and the (Office of Landscape And Forestry) that may consist of a (Director of Landscape and Forestry, Municipal Arborist and Landscape Plan Reviewer/Inspector) and civil service office staff as needed all of who shall oversee the urban forest, public gardens and natural resources of the community.

The job descriptions for these positions and the role, activities and powers of this Commission shall be by separate ordinance.

Section 17.12 Part Supplementary to Other Ordinances

A. This part shall be supplemental to and not intended to interfere with, abrogate or annul any other ordinances, statute, provision of law or regulations designed to protect public property, street right-of-ways public landscapes, or zoned land or contained within the (Zoning Ordinance, City Code or Comprehensive Land Use Plan) of the (Municipality).

Section 17.13 Conflicts

A. Shall any part of this ordinance conflict with other ordinances, statute, provision of law or regulations of the (Municipality), the more restrictive provisions or higher standard shall control public lands or zoned land of this community.

Section 17.14 Severability

A. Shall any part of this ordinance, any article, section, subsection, heading, point, phase, paragraph or sentence of this ordinance be judged invalid by a court of competent jurisdiction, or in conflict with national or state constitutions, the language in conflict shall be deemed null and void without nullifying the meaning and intent of this ordinance and shall not affect or invalidate the remainder of any article, section, subsection, heading, point, phase, paragraph or sentence of this ordinance.

Section 17.15 Effective Date

A. Passed by vote of the (Municipal Council of the City of Municipality, Municipality, Parish, Louisiana) in session on (_____, 2008_____) with the following yea and nay votes.

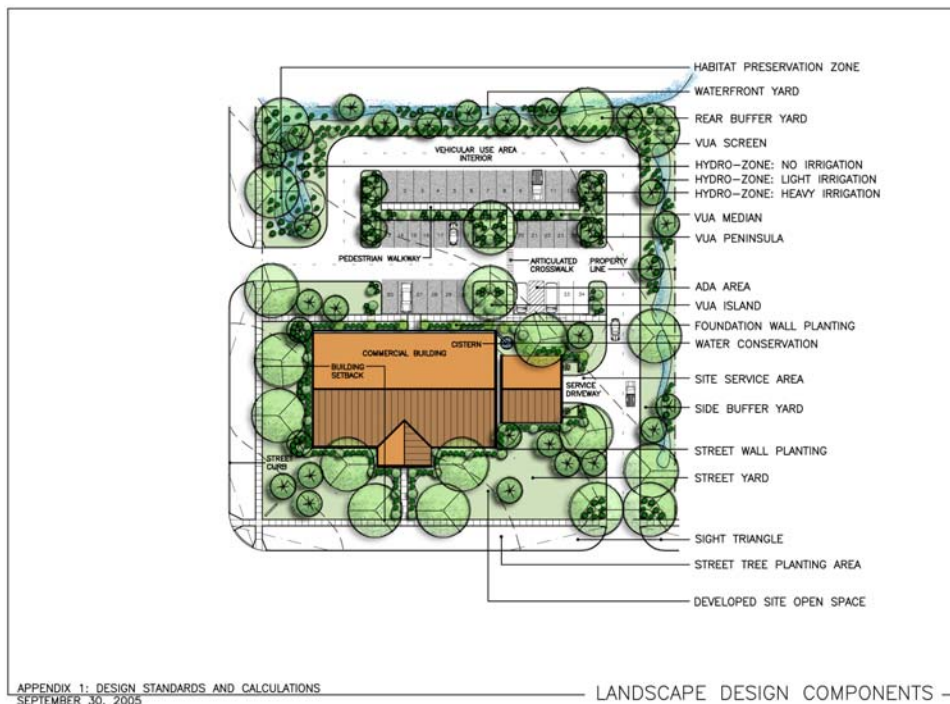
This ordinance shall be known as Ordinance No. _____ “The Community Landscape Code” and become effective on

(_____ 2008). .

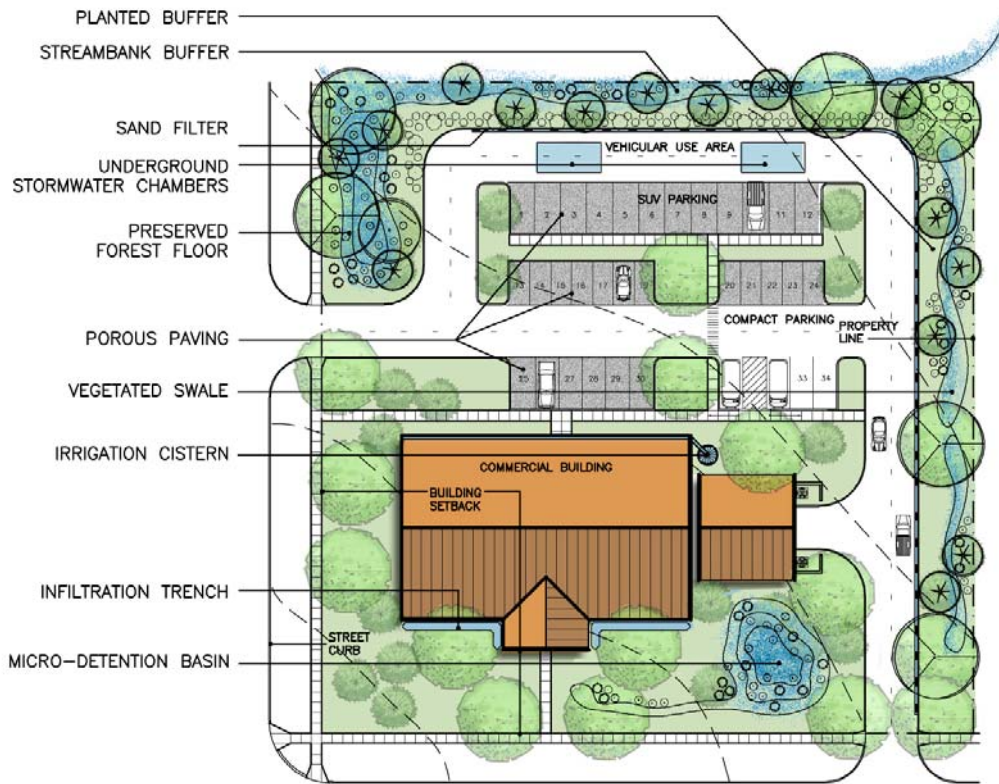
Enrollment _____

This document shall be properly enrolled by the(City Clerk of the City of Municipality/Municipality Parish, Louisiana) effective as the date of passage, published in the local official journal and filed with the official city codifier to be added to and placed in the appropriate Chapter of (General Code) of the community.

Appendix A, Illustration no. 1-Landscape Design Components



Appendix A+, Illustration no. 1-Landscape Design and On-site Storm Water Management Design Components



Author's Commentary: This document is for educational purposes only and any community wishing to use this model should consult with competent and knowledgeable landscape architects, civil engineers, environmental scientists and attorneys prior to setting technical standards, administrative procedures and the legal framework of this model code. 12.31.08 Rev. v.23