

Land Development Code Subcommittee Meeting

February 24, 2026

- **LDC SUBCOMMITTEE AGENDA ITEM : 5A**
- **DISCUSSION OF REVISIONS TO VEGETATION BUFFERS**

DANA DETTMAR, NATURAL RESOURCES

INCORPORATED
1974

City staff have been working on a number of vegetation buffer projects for commercial/institutional properties post-hurricane and surge events. Several challenges have been identified when trying to achieve buffer compliance:

1. Lawfully existing non-conforming properties
2. Buffers with existing mature trees
3. Overhead powerlines, public utility easements, and stormwater within buffer areas
4. Cost of plants has increased significantly since Hurricane Ian

Since Hurricane Ian there have been several changes to code language regarding vegetation buffers to assist property owners/businesses with recovery:

Ordinance 24-003

- Created native plant incentive to allow reduction in required plant quantities by 15% when utilizing all native plants.
- Excluded square footage ingress-egress driveways and inter/intra connectivity paths from plant quantity calculations.
- Allowed buffer depths to be increased administratively to accommodate utilities rather. Previously, required Planning Commission approval.

Ordinance 24-018 & 25-022

- Allows waivers to buffer standards to be approved administratively until December 31, 2026. Previously, required Planning Commission approval.

Consideration of potential or recommended revisions to the vegetation buffer standards contained in Chapter 122 related to commercial and institutional uses. To include the following topics:

1. Plant quantities in front buffer
2. Land use adjacent to side & rear buffers for commercial/institutional properties
3. Buffers with existing mature trees
4. Powerlines and public utility easements within required buffer areas
5. Stormwater areas within required buffer areas
6. Compliance following natural disaster
7. Phased installation of buffers
8. Other?

Working group for the buffer revisions consisted of Natural Resources and Planning staff, Sanibel-Captiva Conservation Foundation, & Coastal Vista Design.

1. Plant quantities in front buffer

Issue: Can we achieve the purpose of the front buffer with fewer plants?

Vegetation buffers are required “... as a means of providing a barrier to both light and sound created by such uses and for the purpose of maintaining a rural, natural environment and wildlife corridor along city streets.” (Sec. 122-47).

Current Requirements (Section 122-49): Types, varieties, and numbers of plants required.

Plant Category	Quantity	Diversity	Number (2000 sq ft buffer)
Large/Medium Trees	1 per 75 sq ft	6 native species	27
Small Trees/Medium Shrubs	1 per 30 sq ft	5 native species	67; 25% must be small trees
Small Shrubs/Groundcovers	1 per 25 sq ft	3 native species	80

1. Plant quantities in front buffer

Recommended Revision: Reduce the large and medium tree requirement to 1 tree per 200 sq ft

Plant Category	Quantity	Diversity	Number (2000 sq ft buffer)
Large/Medium Trees	1 per 75 sq ft 1 per 200 sq ft	6 native species	27 10
Small Trees/Medium Shrubs	1 per 30 sq ft	5 native species	67; 25% must be small trees
Small Shrubs/Groundcovers	1 per 25 sq ft	3 native species	80

Benefits/Rationale:

- Increase in sunlight availability to the lower canopy, increases options for plant palette
- Allows more space for tree growth, better growth form to increase resilience
- Lowers cost for property owners

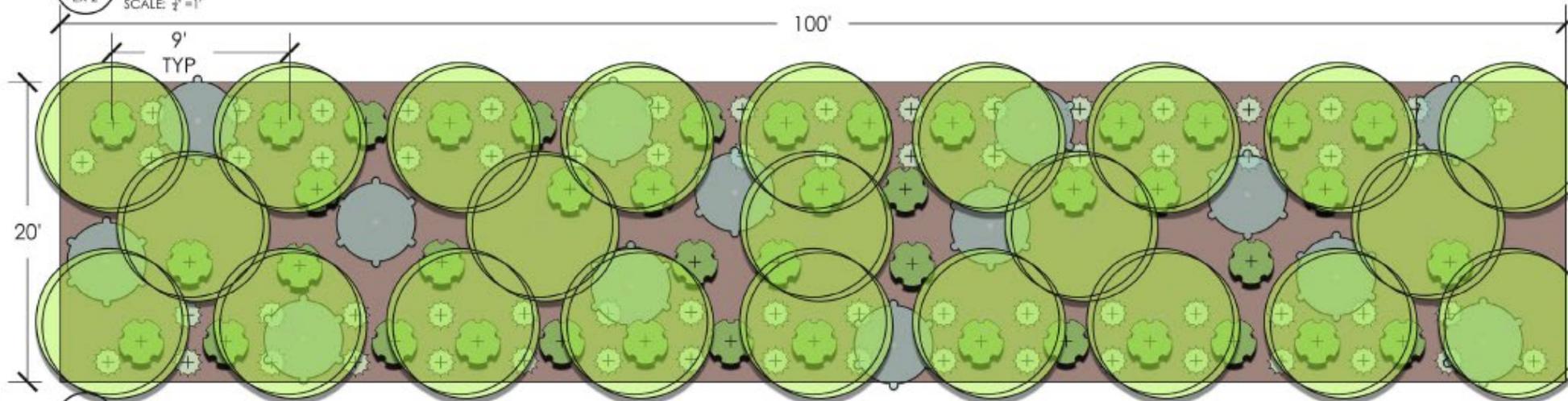


2A BUFFER PLANTING ELEVATION 20' X 100' WITH 15% REDUCTION FOR 100% NATIVE BUFFER SECTION AT TIME OF PLANTING
EX-2 SCALE: 1/4" = 1'

Current standards with 15% native plant incentive



2B BUFFER PLANTING ELEVATION 20' X 100' WITH 15% REDUCTION FOR 100% NATIVE BUFFER SECTION AFTER 2-3 YEARS
EX-2 SCALE: 1/4" = 1'



2C BUFFER PLANTING PLAN 20' X 100' WITH 15% REDUCTION FOR 100% NATIVE BUFFER PLAN
EX-2 SCALE: 1/4" = 1'

PLANT MATERIAL SELECTION SAMPLE:
Large / Medium Tree Category - minimum of 6 Sanibel native species

2000 SF / 75 = 27 X .85 = 23 Large/medium Tree required (reduction= tree 83' ft)
Sample trees: Cabbage Palm (*Sabal palmetto*), Green Buttonwood (*Conocarpus wrightii*), Gumbo Limbo (*Bursera simaruba*), Pitch Apple (*Clusia rosea*), Live Oak (*Quercus virginiana*)
MIN SIZE 10'-12' HT, 2" CAL

Small Tree/Large Shrub - minimum of 6 Sanibel native species

2000 SF + 30 = 67 X .85 = 57 Small Tree/shrub Required (reduction= shrub 125 ft)
10' x .25 = 14 SMALL TREES REQUIRED
Sample shrubs: Key Thatch Palm, (Thras monti), Silver Buttonwood (*Conocarpus wrightii* Silver), Datsan Holly (*Ilex cassine*), Bahama Cassia (*Bassia maritima* var. *chapanianii*), Coco Palm (*Chrysalidocarpus lutescens*), Simpson Shapper / Twinkley (*Myrsine floridana*), Myrsine (*Rapanea punctata*)
75% MIN SIZE 2' GAL, 25% MIN SIZE 6" HT

Small Shrub/Groundcover - minimum of 3 Sanibel native species

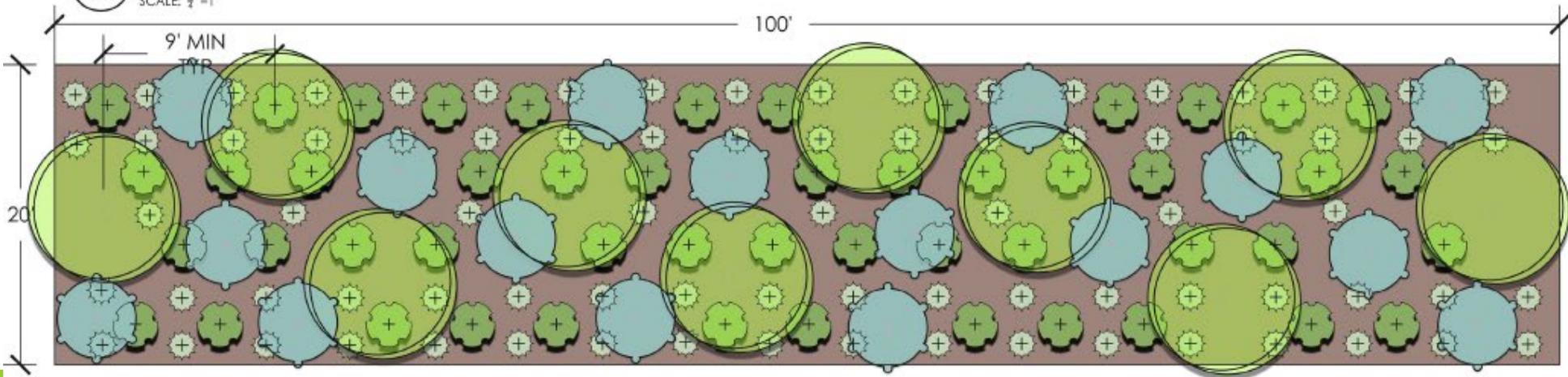
2000 SF + 25 = 80 X .85 = 68 Small Shrub/groundcover Required (reduction= groundcover 20 ft)
Sample: Groundcover: Short Leaf Wild Coffee (*Psychotria ligusticifolia*), Florida Coccoloba (*Coccoloba purpurea*), Spider Lily (*Phymenocallis florida*), Muley Grass (*Muhlenbergia capillaris*), Golden Creeper (*Brondia floridana*), American Beautyberry (*Callicarpa americana*), Peperomia (*Peperomia alata*), Quality (*Chasmodon biflorum*), Wild Coffee (*Psychotria nervosa*), Sparina (*Spartina bakeri*)



3A BUFFER ELEVATION 20' X 100' REDUCED LARGE TREE DENSITY (1 TREE / 200 SF) AT TIME OF PLANTING
EX-3 SCALE: 1/4" = 1'



3B BUFFER ELEVATION 20' X 100' REDUCED LARGE TREE DENSITY (1 TREE / 200 SF) AFTER 2-3 YEARS
EX-3 SCALE: 1/4" = 1'



3C BUFFER PLAN 20' X 100' REDUCED LARGE TREE DENSITY (1 TREE / 200 SF)
EX-3 SCALE: 1/4" = 1'

Proposed standards with reduced tree density (1/200 sqft)

- PLANT MATERIAL SELECTION SAMPLE:**
- Large / Medium Tree Category - minimum of 6 Sanibel native species**
 - 2000 SF / 200 = 10 Large/medium Tree required
 - Sample trees: Cabbage Palm (*Sabal palmetto*), Green Burfordwood (*Conocarpus erectus*), Gumbo Limbo (*Butora americana*), Pinch Apple (*Clusia rosea*), Live Oak (*Quercus virginiana*)
 - MIN SIZE 10'-12' HT, 2" CAL
 - Small Tree/Large Shrub - minimum of 6 Sanibel native species**
 - 2000 SF - 30 = 67 Small Tree/shrub Required
 - *67 x .25 = 17 SMALL TREES REQUIRED
 - Sample shrubs: Key Thatch Palm (*Thrinax parviflora*), Silver Burfordwood (*Conocarpus erectus* 'Silver'), Dahoon Holly (*Ilex cassine*), Bahama Cassia (*Senna mexicana* var. *chapmanii*), Coco Plum (*Chrysobalanus icaco*), Simpson Stopper / Twinkberry (*Myrsine floridana*), Myrtle (*Rapanea punctata*)
 - 75% MIN SIZE 7' GAL, 25% MIN SIZE 4" HT
 - Small Shrub/Groundcover - minimum of 3 Sanibel Native species**
 - 2000 SF - 25 = 80 Small Shrub/groundcover Required
 - Sample Groundcovers: Short Leaf Wild Coffee (*Psychotria ligustralis*), Florida Coonite (*Zamia pumila*), Spider Lily (*Hymenocallis latifolia*), Murry Grass (*Juniperbergia capillaris*), Golden Creeper (*Brondia litorea*), American Beautyberry (*Callicarpa americana*), Paperaria (*Paperaria alata*), Quailberry (*Crossopetalum littorale*), Wild Coffee (*Psychotria nervosa*), Spartina (*Spartina bakeri*)
 - MIN SIZE 1 GAL

2. Adjacent land use for side & rear buffers

Issue: Should the side and rear buffer standards take into consideration the adjacent land use?

1. **Another commercial property**
2. **Residential property**
3. **Conservation lands**

Current Requirements: Section 122-50(4) requires that a vegetation buffer between a commercial building or parking or loading area and any dwelling unit be *“sufficiently dense, between (2) feet and 6 feet above ground level, as to screen light and sound passage to the extent reasonably practical. As a minimum, all required small trees and shrubs in such portions of a buffer must be at least 6 feet in height...”* at the time of CO.

Other types of adjacent land uses are not considered.

2. Adjacent land use for side & rear buffers

Side & rear commercial/institutional buffers located adjacent to:

Another Commercial Property

Current Requirements

Plant Category	Quantity	Diversity	Number (2000 sq ft buffer)
Large/Medium Trees	1 per 75 sq ft	6 native species	27
Small Trees/Medium Shrubs	1 per 30 sq ft	5 native species	67; 25% small trees = 17
Small Shrubs/Groundcovers	1 per 25 sq ft	3 native species	80

2. Adjacent land use for side & rear buffers

Side & rear commercial/institutional buffers located adjacent to:

Another Commercial Property

Recommended Revisions

- 1 large/medium tree per 300 sq ft
- Eliminate requirement that 25% of small tree/medium shrub category be small trees

Plant Category	Quantity	Diversity	Number (2000 sq ft buffer)
Large/Medium Trees	1 per 75 sq ft 1 per 300 sq ft	6 native species	27 7
Small Trees/Medium Shrubs	1 per 30 sq ft	5 native species	67; 25% small trees = 17
Small Shrubs/Groundcovers	1 per 25 sq ft	3 native species	80

2. Adjacent land use for side & rear buffers

Side & rear commercial/institutional buffers located adjacent to:

Residential property

Current Requirements

Plant Category	Quantity	Diversity	Number (2000 sq ft buffer)
Large/Medium Trees	1 per 75 sq ft	6 native species	27
Small Trees/Medium Shrubs	1 per 30 sq ft	5 native species	67; 25% must be small trees
Small Shrubs/Groundcovers	1 per 25 sq ft	3 native species	80

2. Adjacent land use for side & rear buffers

Side & rear commercial/institutional buffers located adjacent to:

Residential property

Recommended Revision

Keep the same standards as proposed changes to the front buffer to ensure a more robust visual/sound barrier between commercial/institutional and residential areas.

Plant Category	Quantity	Diversity	Number (2000 sq ft buffer)
Large/Medium Trees	1 per 75 sq ft 1 per 200 sq ft	6 native species	27 10
Small Trees/Medium Shrubs	1 per 30 sq ft	5 native species	67; 25% must be small trees
Small Shrubs/Groundcovers	1 per 25 sq ft	3 native species	80

2. Adjacent land use for side & rear buffers

Side & rear commercial/institutional buffers located adjacent to:

Conservation lands

Current Requirements

Plant Category	Quantity	Diversity	Number (2000 sq ft buffer)
Large/Medium Trees	1 per 75 sq ft	6 native species	27
Small Trees/Medium Shrubs	1 per 30 sq ft	5 native species	67; 25% must be small trees
Small Shrubs/Groundcovers	1 per 25 sq ft	3 native species	80

2. Adjacent land use for side & rear buffers

Side & rear commercial/institutional buffers located adjacent to:

Conservation lands

Recommended Revisions

- Require small tree/medium shrub category only to create a distinct barrier between conservation lands to discourage encroachment
- Eliminate large/medium tree and small shrub/groundcover requirements

Plant Category	Quantity	Diversity	Number (2000 sq ft buffer)
Large/Medium Trees	1 per 75 sq ft Remove	6 native species	27 0
Small Trees/Medium Shrubs	1 per 30 sq ft	5 native species	67; 25% must be small trees
Small Shrubs/Groundcovers	1 per 25 sq ft Remove	3 native species	80 0

3. Buffers with existing mature trees

Issue: Existing, mature trees within a buffer can limit the available planting area, making it difficult to comply with the large/medium tree requirement for a new buffer.

Current Requirements: The code does not distinguish between newly installed and existing trees within buffers.

Recommended Revision:

Allow property owners to receive "credit" for existing mature large/medium size trees within a buffer based on diameter at breast height (DBH) measurements of the existing tree(s)

- DBH 6-10" = two trees
- DBH 10.1-20" = three trees
- DBH 20" or greater = four trees

Benefits/Rationale:

- Recognizes the benefits of large, mature trees
- Reduces harm to existing tree roots and promotes survivability of newly installed trees
- Lowers cost for property owners

4. Powerlines and public utility easements within required buffer areas

Issue: Overhead powerlines or underground utility easements can be present within the buffer area making it difficult to accommodate certain plant types

Current Requirements: Section 122-48(d) allows for buffers to be increased in size (depth) to avoid conflicts with overhead powerlines or public utility easements; however, sometimes this is not feasible.

Plant Category	Quantity	Diversity	Number (2000 sq ft buffer)
Large/Medium Trees	1 per 75 sq ft	6 native species	27
Small Trees/Medium Shrubs	1 per 30 sq ft	5 native species	67; 25% must be small trees
Small Shrubs/Groundcovers	1 per 25 sq ft	3 native species	80

4. Powerlines and public utility easements within required buffer areas

Powerlines Recommended Revision

Change the quantities required for large/medium trees to small trees for the area of buffer located beneath the powerlines.

Plant Category	Quantity	Diversity	Number (2000 sq ft buffer)
Large/Medium Trees Small Trees	1 per 75 sq ft 1 per 200 sq ft	6 native species 5 native species	27 10
Small Trees/Medium Shrubs	1 per 30 sq ft	5 native species	67; 25% must be small trees
Small Shrubs/Groundcovers	1 per 25 sq ft	3 native species	80

Benefits/Rationale:

- Reduces conflict with plants growing into powerlines as they mature
- Lowers cost for property owners

4. Powerlines and public utility easements within required buffer areas

Public Utility Easement Recommended Revisions

- Eliminate requirements for large/medium trees and small trees/medium shrubs for the portion of the buffer within the easement. Require groundcovers only.
- Plant quantities for large/medium trees and small trees/medium shrubs will be calculated for the remaining buffer outside of the easement.

Plant Category	Quantity	Diversity	Number (2000 sq ft buffer)
Large/Medium Trees	1 per 75 sq ft	6 native species	27
Small Trees/Medium Shrubs	1 per 30 sq ft	5 native species	67; 25% must be small trees
Small Shrubs/Groundcovers	1 per 25 sq ft	3 native species	80

Benefits/Rationale:

- Reduces likelihood of root systems compromising below ground utilities
- Lowers cost for property owners

5. Stormwater areas within required buffer areas

Issue: Increasingly, stormwater areas overlap with required buffer areas. Because these areas hold water and can be subject to holding storm surge for extended periods of time, the plant palette is limited making it difficult to comply with species diversity requirements.

Current Requirements: Not currently addressed in the code

Recommended Revisions: Decrease species diversity requirements in areas where vegetation buffers overlap with designated stormwater areas.

Species Diversity	Large/Med Trees	Small Trees/Med Shrubs	Small Shrubs/ Groundcovers
Current Requirement	6 species	5 species	3 species
Proposed Requirement	3 species	3 species	3 species

Benefits/Rationale:

- Increases plant survival by following "right plant, right place"
- Limits replacement of plants that don't survive, lowering cost for property owners

6. Compliance following natural disaster

Issue: Recent hurricanes and storm surge events have impacted buffer compliance; i.e. required quantities of plants within buffer areas

Current Requirements: Sec. 122-51 – Maintenance standards requires buffers that fall out of compliance to be restored within 30 days of notification. The language is general and would currently apply to natural disasters.

Recommend Revision: Mirror language under the post natural disaster build-back standards in Sec. 126-212.

- *Example language:* Landscape buffers destroyed or damaged by accidental fire or other natural and disastrous force must be brought into compliance within 2 years of the date of destruction or damage. If the declared state of local emergency extends beyond six months, the buffers must be reestablished within 3 years. If the declared state of local emergency extends beyond one year, the buffers must be reestablished within 4 years.

- Consider including additional language to the above example to prioritize re-establishment of the front buffer.

Benefits/Rationale:

- Provides property owners a longer timeline for compliance

7. Phased installation of buffers

Issue: Installation of can be costly, especially for new development or lawfully existing non-conforming properties with little to no existing plants within required buffer areas.

Current Requirements: The code does not contain any language regarding phased buffer installation, but this is often a request from property owners/applicants.

Recommended Revision: Allow buffer installation to be phased, if requested by the property owner/applicant. Prioritize installation of the front buffer to completed within 12 months of permit issuance, CUP, etc. and allow 12 months for each remaining buffer, up to 48 months.

- However, this may be difficult for staff to track over a 4-year period. An alternative would be to require front buffer compliance within 12 months and provide an additional 12 months for the remaining buffers.

- May also require the need for staff to send property owners/applicants an annual notice to remind them of the phasing requirements.

Benefits/Rationale:

- Provides property owners a longer timeline for compliance
- Allows cost of buffer installation to be spread over multiple years

Questions/Discussion

1. Plant quantities in front buffer
2. Land use adjacent to side & rear buffers for commercial/institutional properties
3. Buffers with existing mature trees
4. Powerlines and public utility easements within required buffer areas
5. Stormwater areas within required buffer areas
6. Compliance following natural disaster
7. Phased installation of buffers
8. Other?