

Staff Report

LANDSCAPE ORDINANCE TEXT AMENDMENT UPDATE

August 16, 2016

BACKGROUND:

On April 12th staff presented concepts for new landscape standards based upon input from the work group, our landscape architect consultant, and staff review of landscaping standards. The City Council directed staff to develop a new landscape ordinance consisting of a “points-based scoring system” to address a wide range of landscape interests and to provide flexibility to a developer to address their interests for a specific site. Since April, staff has conducted a third development stakeholder workshop, reviewed development examples, and worked with our landscape consultant, Confluence, to draft specific language for a scoring system. **As mentioned in April, the point-base approach is novel and that there are no established models that staff was aware of for such a system to help guide its development.**

The City Council is now asked to review the points based concept to understand the approach to the standards and the trade offs of such a system. City Council is also asked to provide direction to staff on whether to continue with the writing of an ordinance of this type, if so, whether the system is mandatory or optional.

POINTS-BASED LANDSCAPE SYSTEM:

The most common complaints about current requirements are the monotony of the appearance, maintenance of landscaping, rigid planting requirements, lack of space for plantings, and emphasis solely on screening all sides of parking (see workshop notes online at <http://www.cityofames.org/planning> (What’s New: Landscape Ordinance Update). The premise of new system is to address these issues and improve overall landscaping through standards with flexibility that support sustainability, quality of landscaping, visual interest, and plant vitality. The complete draft system is attached to this report.

Due to the nature of Ames with a wide range of sites, in terms of both site size and whether they are greenfield or infill sites, the new system tries to respond to these issues with a variety of choices for weighted points. Additionally, the draft system recognizes that small sites (< 0.5 acres) may not have the space to implement many of the options and are allowed to achieve a lower total of points in the system compared to larger sites.

The draft standards consist of 5 separate mandatory categories and 1 optional bonus category. Developers would be required to obtain the minimum points in each category

with a combined total of totals 50 points for large sites and 33 points for small sites. To assist in meeting the overall total, there is a bonus category that encourages site amenities of which the developer can choose in addition to additional landscaping points in the mandatory categories.

Mandatory pre-requisites will also be incorporated independent of the scoring system that developers will be required to comply with regardless of scored design. These required standards are to be reflective of basic requirements applicable to all sites, such as minimum planting size, percentage of open space, etc. There are no proposed changes to the overall percentage of landscaping or open space for all zoning districts, except for apartments. Staff proposes that apartments have a 5% usable open space requirement, meaning it is area set aside from parking lot and front yard areas that may be either usable by residents or provide visual relief.

The following six categories have been incorporated into the proposed system:

1. Soil Management Plan (8 points)

Staff has highlighted this category as an important new requirement. There currently are no specifications in the Zoning Ordinance for soil quality, although the storm water management ordinance does address some of these issues.

This category lays out options for the developer to choose from that help ensure high quality soil for healthy vegetative growth and consistent plant maturity. Healthy soils also promote storm water practices that assist in treatment and discourage runoff. Removal of debris, rock, proper tillage and the minimum organic makeup all cooperate toward ensuring healthier, longer lasting plant growth and life span. While much of this requirement will be unseen relative to plants above, it is vital in establishing healthy vegetation. Although this is an important requirement to ensure successful plant growth, staff administration with documentation, testing, and inspection will be difficult.

2. Environmental Design (8 points)

The environmental category addresses standards supporting sustainability with reduced parking areas, heat island effect, and stormwater treatment into landscape design. Bio-retention areas, bio-swales, bio-cells as well as rain gardens all provide stormwater enhancements and treatment options. Excess parking is discouraged as well as incorporating bio cells and swales into parking lot islands thereby helping to incentivize a reduction the required parking to no more than 10% above the minimum requirements. Elimination of stormwater piping and the incorporation of parking lot shading is also encouraged. This category allows developers to take advantage of storm water requirements while incorporating landscape requirements and principles. **The landscape points do not relieve a project from meeting Chapter 5B quantitative and qualitative requirements, but is intended to promote specific types of visible landscape based treatment measures in compliance with Chapter 5B.**

This categories allows for either mixing of tree placement and storm water points to meet the minimum requirements, or to distinctly pursue only tree shading points or storm water points. **It is conceivable for almost no trees to be on a site in this category if the site fully embraces landscape based storm water treatment.**

3. Front Yard Landscaping & Parking Lot Screening (10 points)

The front yard of any property is the most prominent and visible portion of a site. The main goal of this category is to provide front yard landscaping and parking lot screening. **A requirement to consider the whole of the front yard (entire length of street frontage) of a site is new for commercial and industrial areas and will also replace the apartment foundation requirements.** The points are designed to diversify and enhance the types of landscaping that are allowed thereby giving developers greater flexibility in placement, plant type, and storm water design when incorporating with landscaping. Clustering, berming as well as rewarding specific amounts of over-story and under-story trees, grasses and shrubs per lineal square feet of frontage are also included. Also encouraged are minimum 10-foot wide planter areas along property lines abutting residential zones and between parking lots and abutting street property lines. Note that the current minimum buffer area to residential is maintained as a prerequisite, 5-foot wide area of L3.

Staff notes that with the wording of this category, screening of parking in essence is only required along streets or residential properties. This is a significant change from current code that requires landscaping along all parking lot perimeter lot lines, regardless of what is on the abutting property.

4. Planting Design (8 points)

Planting Design category is being suggested to create intentionality in the choices of plant types and patterns for the whole site, not just parking lots. It provides a number of options for spacing, arrangement, variation of over and under story trees as well as shrubs, berms and grasses. Meaningful clustering of plants and visual interest is encouraged through the weighting of the points in this category.

This category can include landscaping that is counted toward the front yard requirement as a component of the overall site. A “Designer Choice” option is included that as a single item fulfills the total score required for the category. This option requires a plan certified by a Landscape Architect and enhanced features such as gardens, amenities, signature greenspaces and goes above and beyond basic requirements to incorporate a unique design to the entire site. **This option will be especially attractive to developers of larger sites as it could potentially require less plantings overall based on other offsetting design factors.** Planting Design encourages creativity and innovation in regards to

landscape application and discourages uniformity and minimal application of base standards.

Currently, there is no landscape or open space planting requirement unless it is between a parking lot and a street or property line. To achieve the minimum points in this category a developer will likely need to use the planting ratios for trees, grasses, and shrubs and add landscaping to large open areas of the site. This scenario will most frequently arise on apartment projects and commercial/industrial sites that have large open areas that are not related to parking lots. This category may substantially increase the volume of plantings located on a site.

5. Groundcover (10 points)

The goal is to minimize standard turf lawn grass and instead encourage variations of tall grasses and alternative ground cover such as Eco-lawn mixtures, hardwood mulch beneath trees, shrubs, flowers and decorative grasses. This category encourages protection of soils, enhancement of soil function, and aesthetically pleasing alternatives to standard turf grass. Additionally, incentive is given to discourage turf grass in areas less than 5' in width.

6. Site Amenities (8 bonus points)

The site amenities category is a bonus category meant to incentivize items such as art, plazas, decorative lighting, recreational amenities and flower beds. This category is optional at this point as it offers many chances for points that are not landscaping based, such as bicycle parking or public plazas, and may be small features in size compared to the overall size of a site.

The City Council might not find these features relevant to landscaping and provide alternative direction to staff. In addition, a final Council decision regarding the weighting of these bonus points is also important to ensure there is an appropriate balance of landscaping efforts versus other types of features.

SITE APPLICATION:

Staff has compared existing built commercial and apartment sites to the points system, reviewed examples of current sites and adjustments needed to comply, and representative examples of new development designed to the standards. Because of the new points of emphasis on thoughtful plantings, diversity, and changes to parking lot trees, staff does not believe sites built under current L1 or L2 standards would meet minimum category points. After reviewing such sites (presuming meeting soil points) it appears a current site may have as few as 16 points and up to 36 points on the current system. In staff's exercise on reviewing sites it appears many sites could achieve 30-42 points with minimal effort and only adjustments to the planting approach and not a full site redesign.

As it stands in the draft, the combined totals from the minimum value in each category is 44 points for large sites. The combination of minimum points in each category appear well suited to encouraging intentional site design that meets the objectives of the ordinance update. Requiring additional points for a total project score of 50 ensures that significant design elements of the system are incorporated into sites that are above and beyond most current practices in the City.

Due to wide range of options, the system can appear daunting and potentially costly. The system is designed to reward points throughout the system. For example, if trees are included in the parking lot they can also meet front yard landscaping and planting design to meet multiple categories. This intended to reward thoughtful design, but such an effort will be required by developer at the outset of the project with coordination between the civil engineer and landscape designers. Benefits to developers also include a reduction in perimeter landscaping requirements on interior lots lines.

With any change to regulations there will be perceived benefits and drawbacks. In some circumstances, there will be likely increased planting costs due to new standards for soil quality, front yard plantings, and overall planting requirements. **This is most likely true on apartment developments and large sites with open space that may not have previously had significant amounts of parking lot screening.** The projected costs on standard sites, while initially seeming drastic, often can be alleviated by the flexibility in the design criteria. A developer may choose to do relatively few if any trees and to compensate may elect to plant grasses and incorporate other items to make up for the lack of tree coverage. Alternatively a developer may choose to plant numerous trees by choosing alternative scoring options.

An issue that has yet to be resolved is how to apply this system to Downtown and Campustown. In some instances the categories are appropriate in how plants should be integrated into the site, but there are potentially inconsistencies with zoning standards for intensification of these sites with high floor area ratios and no setbacks. Staff believes either exempting certain categories (front yard landscaping) from these areas or potentially the whole system is likely the appropriate at this time.

IMPLEMENTATION:

Staff believes that the way the system is designed it should be applied as a whole site system. It is not meant for picking and choosing of individual categories or to be combined with other prescriptive requirements like our current L2 standards. If Council does not agree that the categories are adequate or that the system should be simplified substantially, then staff believes that the City should not go forward with this option as it will have minimal to no benefit over standard approaches to zoning requirements.

Presuming City Council is comfortable with the points based concept, implementation is challenging from a zoning administration perspective. Staff believes that there is no site today that is currently compliant with the minimum point totals, because the

requirements are different than prior standards in how to plant landscape areas. In fact, most sites today in the city do meet current L1 or L2 requirements unless they were built in the past 15 years. **Therefore, when sites have minor changes or additions it may be difficult to precisely predict how the points will be implemented along with those types of changes. Staff will have to provide an approach to address these situations at the time of updating the landscaping ordinance.**

It appears the system will work well on new development or whole site redevelopments, although a higher level of detail and administration is needed to ensure compliance. As discussed in April, staff will also propose changes to the site inspection requirements to include property owner certifications at the time of final occupancy requests to alleviate some of the challenges facing both staff and developers on getting timely occupancy permits.

Staff also proposes that many of the key aspects of existing overlays and landscape standards remain in place to supplement the scoring system. The system would have to work in concert with other specifications in zoning and storm water requirements.

STAFF'S COMMENTS:

Although the system could be adopted as an optional approach or mandatory for all sites, one combined approach of using the scoring system and having a base requirement would be to allow for either the L1 approach to site design or the points based system. A developer would have to choose one or the other for a site. The L2 approach with its minimal spaces and rigid planting requirements would be deleted. With this option, L1 would have some minor adjustments to allow for planting diversity, but its basic requirements of minimum 10-foot planters and planting ratios would remain along with interior parking lot planting requirements and apartment foundation plantings. L2 would be deleted because it does not further the City's goals for enhanced planting and it does not allow for flexibility. If a property owner desired more flexibility in arrangement of spaces than L1 provides, they would choose the points-based system.

City of Ames: Landscape Ordinance - Ranking System (Draft Proposal)

1. **Pre Design Site Assessment:** (Pre-Requisite)
 - Storm Water Analysis of pre-developed site.
 - o Discharge points
 - o Swale locations
 - o Existing wetlands
 - o Calculate pre-development runoff
 - Document existing topsoil depths
 - Documentation of existing 'trees of significance'

2. **Project Design:** (Pre-requisite)
 - Developer agrees to submit written and photographic verification that they completed the tasks agreed upon prior to construction.
 - It is understood that designers will use best planting and design practices. Plant spacing to allow for growth, mulch additional areas as necessary to minimize maintenance, eliminate the use of nuisance and invasive species, etc.
 - Developer agrees that all plant sizes must adhere to the following size restrictions. (Pre-requisite)
 - o Overstory Trees – Min. 2" Caliper, Max. 3.5" Caliper
 - o Understory Trees – Minimum 1.5" Caliper, Max. 2.5" Caliper
 - o Evergreen Trees – Min. 6' Height
 - o Shrubs – Minimum three (3) Gallon
 - o Ornamental Grasses – Minimum one (1) Gallon
 - o Prairie Plantings – Must use at least three (3), but no more than five (5) varieties of native short grass prairie species. Must reach a minimum 3 feet in height. Can be combined with similar height native wildflowers, but is limited to 10 species per development. 'Small sites' only required to provide 2 types of prairie plantings
 - o Pollinator Species Planting – Must use the US Governments' required species mix for the Conservation Reserve Program - (CP42)
 - o Commercial uses abutting a residential or industrial use must provide a combination of grasses, high shrubs and trees to screen. Evergreen trees required when abutting residential. Fencing can be no higher than 8 feet
 - o Industrial uses abutting a residential or commercial use must provide a combination of grasses, high shrubs and trees to screen. Evergreen trees required when abutting residential. Fencing can be no higher than 8 feet
 - o Apartment Building foundation plantings required utilizing a tree with shrub and/or grass mixture
 - o Identify which landscape ordinance criteria are being used on site plan and total generated points
 - o Parking Lots adjacent to residential zones require minimum 5 foot landscape screening area
 - o Minimum Landscaping/Open Space requirement by percentage of lot area in commercial and industrial zones. FS-RM, V-R, RM, RH require 5% of lot area as usable open in addition to required landscape and yard areas.
*(Note that Open Space and Landscaped area terminology may include storm water treatment facilities, Usable Open Space would likely not allow for storm water facilities to meet its definition)
 - o 'Large Site' is defined as being at or over 25,000 square feet. 'Small site' is defined as being under 25,000 square feet
 - o Rock mulch is prohibited in required landscape areas
 - o Reconstruction of existing sites must include a functional equivalent replacement of existing landscaping with regard to diversity, totals, etc.
 - **Soil Management Plan** (minimum score - 8 points all size sites) (Self Certification of soil prep by contractor required)
 - o Stockpile topsoil on site

○	Verify removal all construction debris	1
○	Verify removal of excess gravel in planting areas	1
○	Protect Drip Line of all existing trees of significance	1
○	Rip sub-surface to 8" depth, prior to re-spread of topsoil	2
○	Restore topsoil to recorded pre-development depth	4
○	Replace the topsoil to a minimum 6" depth (submittal of soils test required)	2
○	Till the soil to a minimum 8" Depth	3
○	Soil must have minimum organic makeup in the top 8"	
▪	3% organic makeup in the top 8"	1
▪	5% organic makeup in the top 8"	3
-	Environmental Design (minimum score - 8 points)(Small sites- minimum score 6 points)	
○	Provide no more than 10% additional parking than necessary beyond base requirements (<i>Shopping Centers not to exceed 5 per 1000</i>)	1
○	Develop a storm water management plan (Pre-Requisite)	
▪	Minimize hard surface parking lot area (In addition to the required Storm Water Management Plan)	
•	Maximize green space (over 25% of the site) Outside of Floodway	2
•	Parking Islands at the end of all parking rows	1
•	No more than 10 continuous parking stalls in any row (7 X16 islands.)	1
▪	Install Bio-retention to manage water quality and quantity (<i>In areas where Bio-retention are proposed, landscape requirements will be waved.</i>)	3
▪	Reduce and/or eliminate the use of storm water intakes and piping. (<i>Encourage designers to use overland flow</i>) (<i>Narrative required</i>)	
•	Elimination of piping	2
▪	Design and construct a Green Roof	1
○	Heat Island Effect	
▪	Islands not designated as bio-swales: plant a minimum of 1 Overstory tree in each.	3
▪	Parking Lot Shading	
	35% within 15 years	2
	50% within 15 years	4
-	Front Yard Landscaping & Parking Lot Screening (minimum score - 10 points) (Small sites- 8 points) * <i>See amenity option requirements for possible reduction in requirements.</i>	
○	Diversity of genus (No more than 25% of any genus of plant)	2
○	Leave a 3'-0" zone of planter area with no plantings directly in front of all parking stalls	1
○	Provide 1 Overstory tree for every 50LF of street frontage in front setback (<i>See note A</i>)	1
○	Provide 2 Understory trees for every 50LF of street frontage in front setback (<i>See note A</i>)	1
○	9 shrubs per 50 LF of drive isle outside of parking lot areas.	
○	Provide 9 shrubs, for every 100 LF of front setback street frontage (<i>See note A</i>)	2
○	Provide 20 ornamental grasses for every 50LF of frontage in front setback (<i>See note A</i>)	1
○	Use of clustered thoughtful plantings (<i>layering of colors and textures with variety of plants</i>)	4
○	Provide grasses or shrubs with Bio-Swale in required landscape areas between parking and ROW	3
○	Provide minimum 10 foot screening area adjacent to residential uses utilizing the criteria listed above.	2
○	Parking separation from lot line with minimum 10 ft. wide planting area (<i>excluding alleys</i>)	2
○	Provide landscape berming between the parking area and the street (<i>Must be a minimum of 30" high and cover 75% of parking lot frontage.</i>)	2
	OR	
○	Provide landscape berming between the parking area and the street (<i>Must be a minimum of 30" high and cover 95% of parking lot frontage.</i>)	3
-	Planting Design (minimum score - 8 points)(Small sites- 4 points)	
○	Diversity of genus (No more than 25% of any genus of plant in all categories of plantings)	2
○	Provide .2 Overstory tree for every 1000SF of Open Space	1
○	Provide .4 Understory trees for every 1000SF of Open Space	1
○	Provide 6 shrubs for every 1000SF of Open Space	1
○	Provide 10 ornamental grasses for every 1000SF of Open Space	1
○	Provide 10 shrubs or 3 grasses per 50 LF of building foundation	1
○	Undulating large open space	1
○	Provide added visual interest to the open spaces with the creation of berms and hills. (<i>large sites</i>)	2

(Must be a significant impact on the site to be considered.) Additional submittals will be required.

- Incorporate existing significant vegetation (Trees must be at least 12 inches in diameter)
 - 50% of existing vegetation 2
 - Planning may authorize for high value wetland, riparian and native areas 2
- Use of clustered thoughtful plantings that include ornamental grasses, shrubs and over story trees 2
- Designer Choice: Thoughtful planting plan that generally meets the intent of the items listed above, but goes beyond the basic requirements. It would include signature green spaces, outdoor gardens, rain gardens, seating areas, etc. Note- All items listed above need to be incorporated in some capacity to achieve this *(See Note D) (Developments with more than Four (4) Acres of open space will want to use this method as it will likely decrease the number of required plantings)* 8
 - 15% of open area must contain either an outdoor garden or rain garden
 - At least 2 seating areas required in front or side yards
 - Must provide a summary of vegetation and its significance to the planting plan
 - Must contain at least 2 signature green spaces
 - Must be designed and certified by a professional landscape architect

- **Groundcover** (minimum score - 10 points)(Small sites- 7 points)
 - No turf/lawn in areas less than 5-0' in width. 1
 - Eco-lawn mixture 1
 - Use of hardwood Mulch beneath all trees, shrubs and decorative grasses 2
 - Clustering of shrubs and grasses so that maintenance can operate around them easily 2
 - 6' diameter mulch bed around all Overstory Trees, 4' on Understory 1
 - Turf Grass / Lawn to cover less than 50% of the Open Space provided 2
 - OR
 - Turf Grass / Lawn to cover less than 25% of the Open Space provided 3
 - Combination of Shortgrass Prairie grasses and ornamental grasses to cover 60% or more of the open space provided 4
 - OR
 - Use of Shortgrass Prairie grasses to cover 25% of the open space provided 1
 - Addition of plantings to attract pollinator species in select areas 3

- **Site Amenities "Bonus Category"** *(no required minimum score)* If 8 points are accomplished:
 - Provide a public hardscape plaza (minimum of 200SF) 2
 - Provide public seating opportunities (Bench or Cut Stone) (1 point for every 3 benches) (2 pt Max) 2
 - Irrigation installed in required landscape areas 1
 - Use of an alternate paving material for 80% of the designated plaza space (DG pavers, stamped concrete, etc.) 2
 - Incorporation of publically visible Art Piece (must be approved by City Staff) 2
 - Addition of Publicly accessible bike parking 2
 - Use of Decorative pedestrian scale lighting (Must be in addition to standard parking lot lighting) 2
 - Recreational or private amenity 2
 - Perennial flower beds 1
 - Edible Landscaping 1

FOOTNOTES:

- *“A” The intent of the 100/50LF designation is that it creates a unit of measure that can be repeated and averaged. The City of Ames encourages the use of a combination of plantings to meet the requirements.*
 - o *Example: A site with 1000LF of frontage could meet the requirements by:*
 - *Diversity, 3’ Zone, Clustered Plantings, 10 Overstory trees, 60 Shrubs, and 200 Ornamental Grasses*
 - *Diversity, 3’ Zone, Clustered Plantings, 20 Understory trees, 60 Shrubs, and 200 Ornamental Grasses*
 - *Diversity, 3’ Zone, Clustered Plantings, 10 Overstory trees, 20 Understory Trees, and 60 Shrubs*
- *“B” The intent of this portion of the plantings is to provide the developer and their consultants the necessary flexibility, to be creative with the design of these spaces. The City does not want trees placed on 50’ centers, shrubs in a line, or random single ornamental grasses. These points will be rewarded to those that do not create repetitive planting zones, create planting clusters of appropriate species, and generally make an effort to design the space provided.*
- *“C” The intent of the 1000SF designation is that it creates a unit of measure that can be repeated and averaged. The City of Ames encourages the use of a combination of plantings to meet the requirements by:*
 - o *Example: A site with 80,000SF of open space:*
 - *Diversity, Clustered Plantings, 16 Overstory trees, 480 Shrubs, and 800 Ornamental Grasses*
 - *Diversity, Clustered Plantings, 32 Understory trees, 480 Shrubs, and 800 Ornamental Grasses*
 - *Diversity, Clustered Plantings, 16 Overstory trees, 32 Understory Trees, and 480 Shrubs*
 - *Diversity, and Designer Choice*
 - o *Example: B site with 8,000SF of open space:*
 - *Diversity, Clustered Plantings, 2 Overstory trees, 48 Shrubs, and 80 Ornamental Grasses*
 - *Diversity, Clustered Plantings, 4 Understory trees, 48 Shrubs, and 80 Ornamental Grasses*
 - *Diversity, Clustered Plantings, 2 Overstory trees, 4 Understory Trees, and 48 Shrubs*
 - *Diversity, and Designer Choice*
 - o *Example: C site with 200,000SF of open space:*
 - *Diversity, Clustered Plantings, 40 Overstory trees, 1200 Shrubs, and 2000 Ornamental Grasses*
 - *Diversity, Clustered Plantings, 80 Understory trees, 1200 Shrubs, and 2000 Ornamental Grasses*
 - *Diversity, Clustered Plantings, 40 Overstory trees, 80 Understory Trees, and 1200 Shrubs*
 - *Diversity, and Designer Choice*
- *“D” This item will require additional submittal and documentation than the previous items, but will allow for design flexibility. Plantings plans, perspectives, and details will be required during submittal to get these points approved.*