

# 6 LANDSCAPE AND STREETScape

The successful transformation of the airport into a mixed-use, pedestrian-oriented community will rely to a great extent on landscaping within parks and open spaces, along streets and within private properties. The focus of this chapter is on planting, preserving and relocating plant materials – primarily trees – that will significantly influence the identity and character of the Mueller community and its environmental and social characteristics. Guidelines and standards are set forth to help guide the transformation of this urban infill site into a green and sustainable urban landscape that emulates qualities of Austin’s best neighborhoods. Lighting standards and guidelines are also provided to promote nighttime safety and livability as well as to establish an attractive nighttime environment that addresses issues of light pollution. Guidelines for street and park furnishings intended to enhance comfort and add to the amenity of the public environment are also described.

More than 15,000 trees are planned for the Mueller community, comprising an urban forest that will help to achieve community objectives for increased environmental quality, greater energy conservation and mitigation of the heat island effect. The goal is to achieve a thirty percent canopy coverage within streets and other public spaces at maturity. Guidelines for the selection of plant materials, desired character, planting methods and practices, preservation, relocation, removal and maintenance are set forth as follows.

*Mueller’s 15,000 trees will create an urban forest, enhancing environmental quality, promoting energy conservation and ameliorating heat island effect.*

## Plant Selection and Landscape Character

**Approved Plant List:** At least 80 percent of the plant materials proposed for use in the Mueller community must be selected from the list of “Approved Plant Materials” (refer to Appendix A), which emphasize non-invasive, drought-tolerant and native species.

**Diversity:** At least 20 to 30 different types of trees will be used throughout the Mueller community, with no more than forty percent of a single species.



**Potential Street Tree Selection:** Preference for street tree plantings is given to tall, high-canopied trees that grow to at least a height of 40 feet at maturity, provide shade, and reduce the heat island effect. Potential choices for street tree selections are as follows:

- **Major Community Gateways:** Live Oak (*Quercus virginiana*) and Crape Myrtle (*Lagerstroemia indica*)
- **Community Connectors (Mueller Boulevard, Barbara Jordan Boulevard, and Berkman Drive):** Live Oak (*Quercus virginiana*)
- **Linear Park Connector:** Cedar Elm (*Ulmus crassifolia*)
- **Greenway Streets (Philomena Street) and Neighborhood Boulevards:** Lacebark Elm (*Ulmus parvifolia*) and Chinquapin Oak (*Quercus muehlenbergii*)
- **Town Center Main Street (Aldrich Street):** Sweetgum (*Liquidambar styraciflua*), Texas Red Oak (*Quercus texana*) or Mexican White Oak (*Quercus polymorpha*)
- **Neighborhood Connectors:** Combination of distinctive oak trees, including Shumard Oak (*Quercus shumardii*), Chinquapin Oak (*Quercus muehlenbergii*), Texas Red Oak (*Quercus texana*), and Mexican White Oak (*Quercus polymorpha*)
- **Neighborhood Local Streets:** Mexican Sycamore (*Platanus texana*), Shumard Oak (*Quercus shumardii*), Cedar Elm (*Ulmus crassifolia*), and Lacebark Elm (*Ulmus parvifolia*)
- **Alleys:** Occasional plantings of smaller narrow and high-branching trees where sufficient space allows and where not in conflict with trash pick-up and other service needs.

*Landscaped paseos, courtyards and outdoor cafe areas that extend the public space of the street are encouraged.*



**Paired Street Trees:** Tree species will be mirrored on both sides of the street for spatial continuity and uniform canopy coverage. The spacing of street trees should generally range from 20 to 30 feet.

**Tree Size at Planting:** Street trees will be planted at a minimum 65-gallon container size (or three-inch caliper). Opportunities for additional landscaping to shade west and south facing building walls should be optimized, through the use of ornamental trees and

pergolas. If portions of the street are planted at different times, then subsequent plantings should match the current size of the existing plantings in caliper, height and canopy spread.

***Aldrich Street Landscaping:*** Along the commercial streetfronts of the Town Center (e.g., Aldrich Street), street tree planting should be augmented with ornamental plantings along the building face. These could include hedges, low planters, ornamental pots, hanging pots, etc. Such planting will be permitted to encroach within the right-of-way by up to 24 inches, but must be designed and located in a way that does not impede pedestrian access or safety.

***Medians:*** Medians should be planted with street trees with a rich mixture of colorful shrubbery and ground cover to contribute to the desired garden-like setting of the Mueller community and to break down the scale and expanse of pavement of large boulevards. Plant material selections should be carefully made to avoid obstructing sight lines.

***Park Landscaping:*** Landscaping in parks and perimeter greenways should include plantings of younger trees to create mixed-age stands of trees that provide a sustainable tree canopy for the future.

***Private Landscaping:*** A diversity of plant materials is encouraged on private property. Property owners should landscape with a variety of plants providing seasonal color, fragrance, texture, foliage interest and screening capabilities. Fruit and ornamental trees should be encouraged for use in individual yards and should be used for accent, wildlife food and habitat and seasonal color.

***Town Center Courtyards and Paseos:*** Landscaped paseos, courtyards, and outdoor café areas that extend the public space of the street are encouraged, particularly in pedestrian-intensive areas (e.g., between Aldrich Street in the Town Center and the public parking areas (i.e., the orchard parking lot and public parking garage). These spaces should provide a canopy through tree planting, pergolas, awnings, etc.

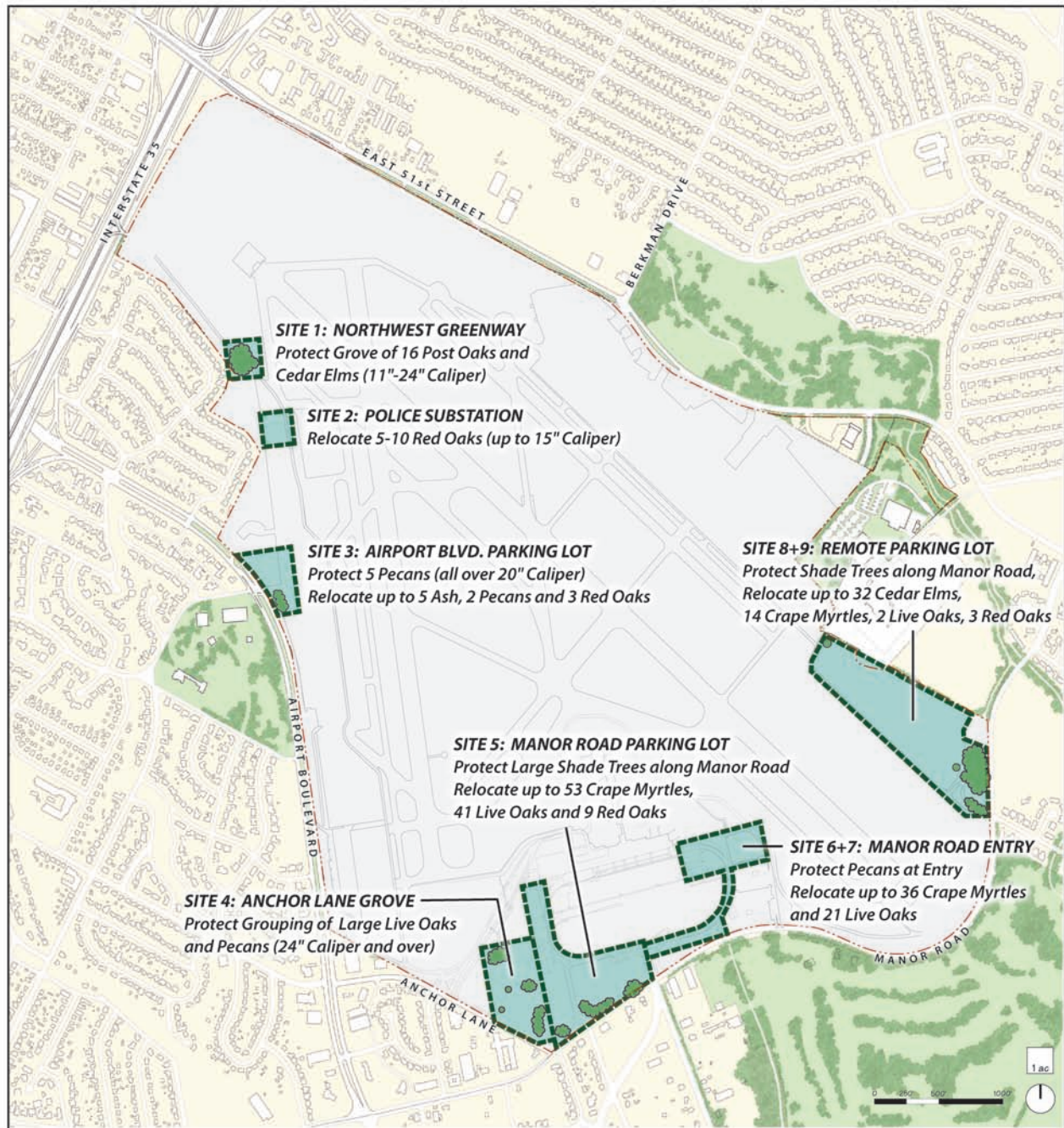
***Private Courtyards and Gardens:*** Interior courtyards and garden areas should be provided within mixed-use commercial or residential developments for the use and enjoyment of residents and employees. These spaces should include generous landscaping, providing shade through the use of trees or pergolas for at least 30 percent of their area.

***Yard House Landscaping:*** At least 40 percent of front and back yard areas will be landscaped with turf and planting beds. In the front yard of detached yardhouses, at



*Storefront landscaping, including hedges, planters, ornamental and hanging pots are encouraged along Aldrich Street.*





## Tree Preservation and Relocation Plan



PROTECT IN PLACE\*



RECOMMENDED FOR RELOCATION\*

\*SUBJECT TO MORE DETAILED INVESTIGATION BY CERTIFIED ARBORIST

least one shade or ornamental tree should be located to maximize canopy coverage of the yard area. In backyards, trees, shrubs and ground cover should be planted to contribute to the visual interest and appearance of the alleys.

**Shading of Southern and Western Walls:** On private parcels, trees should be placed to maximize shading of buildings, structures and outdoor use areas with southern and western exposures. Shade trees selected for such use should grow to appropriate heights at maturity to assist in the reduction of the heat island effect.

**Alley Planting:** Planting pockets will be provided at each lot to provide for vines that can grow up the walls and fences along the alleys.

**Ground Cover:** All exposed and unpaved natural soil, except pathways, should be planted with ground cover and/or turf.

**Parking Lot Landscaping:** A minimum of one tree for every four cars must be provided within surface parking lots. The trees should be sized and distributed so as to achieve a 30 percent canopy coverage over the parking area within 10 years of planting. Shade trees selected should be medium-to fast-growing trees to maximize available shade as quickly as possible. Low hedge planting, shrubs and/or walls up to 36 inches should be provided to screen parking along all public streets.

## **Tree Preservation, Relocation and Replacement**

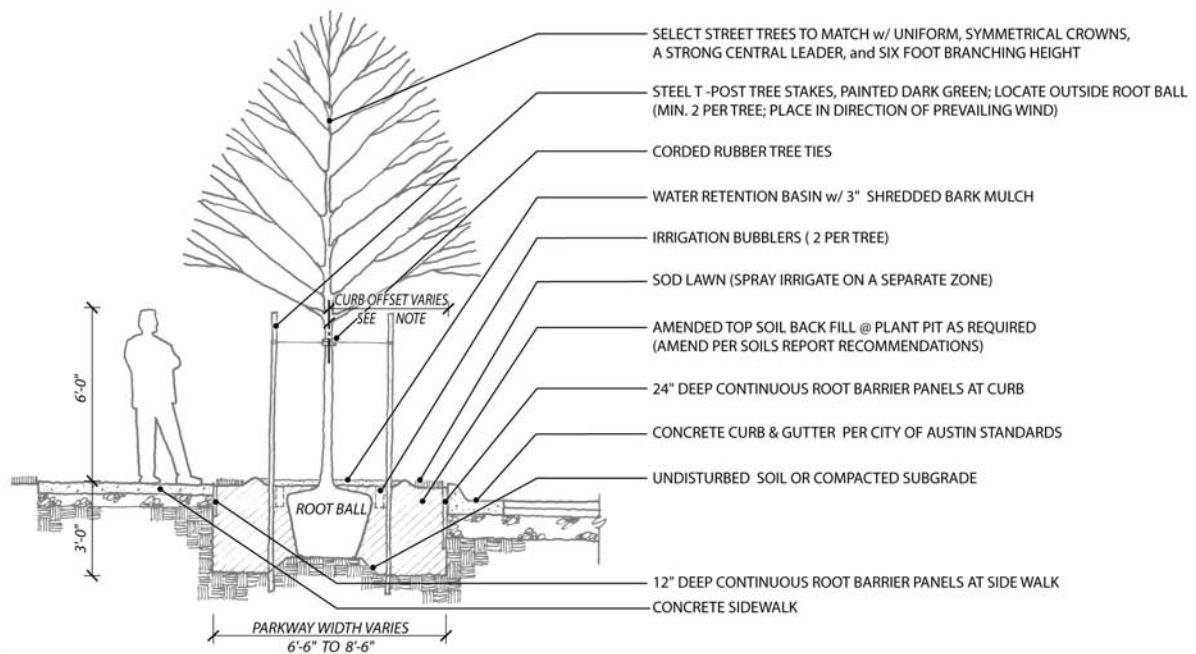
**Preservation:** Existing groupings of trees within the perimeter greenway will be protected and incorporated with future improvement plans. Grading or any disruption of the soil, should not be permitted within the dripline of these trees nor should drainage patterns be altered in such a way as to threaten their future viability.

**Relocation:** Approximately 250 individual specimen trees will be considered for relocation within the Mueller community and utilized as anchors in “signature” plantings. Final determination of trees to be protected and relocated will be made by a certified arborist with a minimum of ten years’ experience in Austin.

**Replacement:** To the extent practicable, protected trees that die or are severely damaged and cannot be restored to original condition should be replaced by trees of equal size or total caliper inches.

**Invasive Species:** Existing invasive species should be eradicated, and trees identified as “invasive” should not be planted.

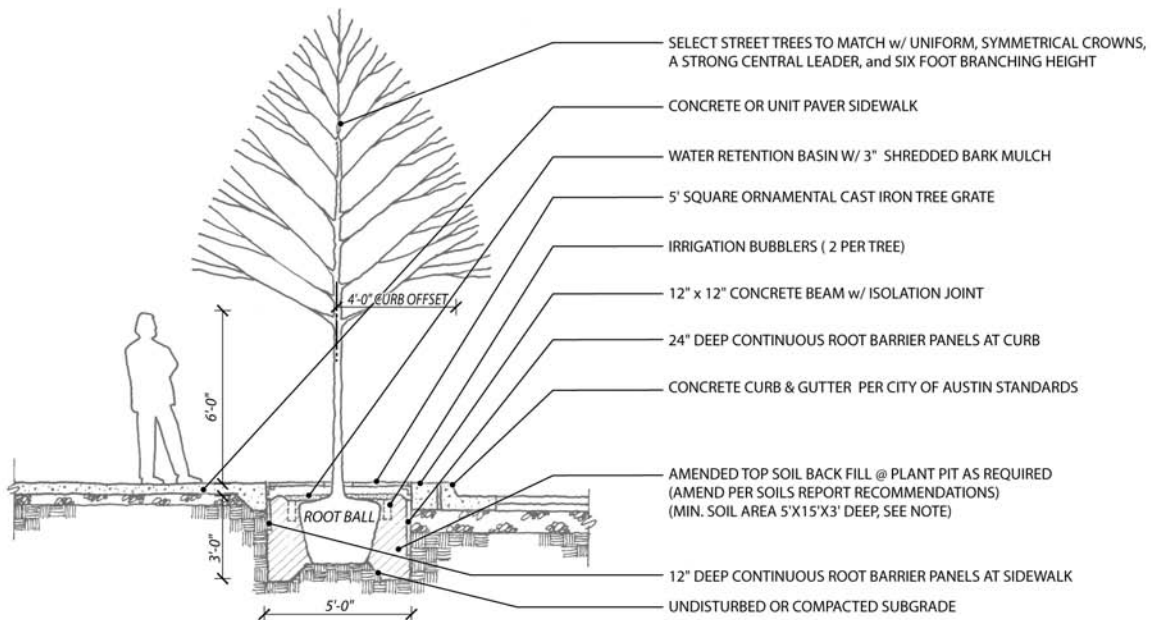




**NOTES:**

1. CURB OFFSETS TO CENTER OF TRUNK: 4'-0" AT 7'-6" TO 8'-6" PARKWAY STRIPS, 3'-9" AT 6'-6" PARKWAY STRIPS
2. TREE PIT UNDERDRAINAGE: PERFORM A PERCOLATION TEST AFTER EXCAVATION & PRIOR TO PLANTING. ANY PIT THAT DOES NOT COMPLETELY DRAIN WITHIN A 24 HOUR PERIOD SHALL BE FURNISHED WITH A DRAINAGE SUMP OR PIPED SUB-DRAIN PER CITY OF AUSTIN STANDARDS

## Typical Street Tree Planting at Parkway Strips



**NOTES:**

1. IN ORDER TO MAXIMIZE THE FERTILE SOIL AVAILABLE TO STREET TREES GROWING IN TREE WELLS, EXTEND THE LIMITS OF SOIL BACKFILL 5'-0" BEYOND BOTH SIDES OF THE TREE WELL LONGITUDINALLY, FORMING A 15' LONG CONTINUOUS TRENCH OF SOIL PARALLEL TO THE CURB. CONSIDERATION SHOULD BE GIVEN TO EITHER OF THE FOLLOWING: A) USE IMPROVED OR AMENDED TOP SOIL BACKFILL AND PROVIDE A STRUCTURAL SIDEWALK SPANNING THE TRENCH THAT IS DOWELLED TO ADJACENT CONCRETE SURFACES; OR, ALTERNATIVELY: B) USE A STRUCTURAL SOIL MIX BACKFILL IN THE TRENCH AND A STANDARD SIDEWALK SLAB, IN LIEU OF SIDEWALK DOWELLING.
2. TREE PIT UNDERDRAINAGE: PERFORM A PERCOLATION TEST AFTER EXCAVATION & PRIOR TO PLANTING. ANY PIT THAT DOES NOT COMPLETELY DRAIN WITHIN A 24 HOUR PERIOD SHALL BE FURNISHED WITH A DRAINAGE SUMP OR PIPED SUB DRAIN PER CITY OF AUSTIN STANDARDS

## Typical Street Tree Planting at Town Center / Aldrich Street

## Planting Practices and Methods

**Plant Quality:** Plant materials will be of premium quality and planted according to best practices and methods, utilizing automated irrigation systems, root barriers where adjacent to pavement (except in the Town Center area where structural soils or other techniques are used to support root growth), staking and well-aerated, fertile, well-drained soils.

**Soil Testing and Amendment:** Prior to planting, agricultural suitability testing must be undertaken to determine the need for soil amendments, import, special drainage requirements and fertilization. If soils are not suitable for planting, recommendations of a soil scientist should be followed to support the long-term health and viability of the plantings. The use of water absorbent polymers should be considered, along with locally engineered soils where appropriate, as a means of increasing soil water-holding capabilities.

**Parkway Strips:** Care should be taken to minimize soil compaction around the critical root zone of all plants. With exception of the Town Center, parkway strips for the planting of all street trees will be incorporated adjacent to the curbs in widths ranging from six to eight and one-half feet continuously along both sides of the street (see Appendix B). Parkway strips should be planted with low-maintenance turfgrass, capable of withstanding foot traffic and should serve to catch and filter run-off from the sidewalks before it reaches the storm sewer system.

**Aldrich Street Tree Wells:** On Aldrich Street within the Town Center, trees will be planted in tree wells and consideration should be given to the use of structural soil mix or other methods that mitigate the effect of soil compaction under pavement on root growth and tree development. Uniform decorative tree grates should be used around each tree.

**Irrigation:** Water-conserving irrigation systems, including automated rain sensors and programmable irrigation controllers, should be used to provide 100% coverage to all irrigated areas, with appropriate zone separation of landscape areas with differing water needs.

**Reclaimed Water:** Reclaimed water will be utilized for landscape areas in the public rights-of-way to the maximum extent practicable, and irrigation systems should be designed for adaptation to reclaimed water, if not available at the time of installation.

**Spray Irrigation:** Spray heads and rotors will be utilized where necessary in large landscaped areas. Spray irrigation systems will be designed so that water is confined

to landscaped areas, avoiding overspray. Spray heads will be of the pop-up type. Timers should limit use of irrigation to the early morning or evening hours.

***Bubblers/Drip Irrigation:*** Bubblers and drip irrigation systems will be used for street trees and elsewhere to encourage deep-rooted plantings. Drip emitters will be used to deliver water directly to plant materials.

## **Landscape Maintenance**

***Standards of Maintenance:*** Landscape maintenance of all parks within the Mueller community will be funded privately and maintained at a high level in consideration of the longevity, appearance and continuity of the plantings and the continued functioning of support systems.

***Pruning:*** Trees will be pruned, as required, after planting to promote good structure and to reduce wind load. Street trees will be pruned within two years so that the branching begins at six feet above grade and continue to be limbed up (only in conditions where the structure of the tree is not disfigured) until the lowest branch is at a maintained height of 10 feet above grade. Any branching over vehicular lanes will be pruned to 14 feet above grade.

***Replacement Planting:*** Successional plantings will be undertaken to replace trees and other plant materials as they age and decline over time.

***Integrated Pest Management:*** All pest and weed management will use least-toxic chemical controls, consistent with recommendations of the City of Austin Department of Watershed Protection.

***Special Precautions Related to Oak Wilt:*** Special care will be taken to minimize the spreading of Oak wilt within the site's oak population.

- The pruning of oak trees will be avoided from February 1 to June 15.
- All wounds will be painted immediately, regardless of size, with a thin coat of commercial tree wound paint to prevent transfer of fungal spores to the wound.
- Pruning tools will be disinfected between cuts, particularly when pruning multiple oaks, with Clorox, Lysol spray or 70% rubbing alcohol solution.



- Pruning will comply with the requirements of the City of Austin ECM and ANSI A300 (Part 1) “Tree, Shrub, and Other Woody Plant Maintenance-Standard Practices (Pruning)”.

### ***Dumping Staging and Storage***

- Open Space areas will not be used as temporary or permanent dumps, storage or staging areas.
- Such areas on the site shall be permitted on an interim basis during construction if the NCC finds that they are adequately screened and located in an area that will not impact adjacent residents or employment uses.

### **Streetscape Furniture**

Benches, trash receptacles, transit shelters and paving materials are all significant elements that contribute to the character and amenity of the public environment, including the streets and parks within the Mueller community.

### ***Benches, Trash and Recycling Receptacles***

- Benches, trash and recycling receptacles will be incorporated along sidewalks in the Town Center and at transit stops for greater pedestrian comfort and convenience.
- Benches, trash and recycling receptacle selections should be identical in style and color, sized appropriately to the specific site, similar to those in place at Capital Metro transit stops.

### ***Sidewalks and Pavement***

- Sidewalks should be a minimum of four feet in width and should provide for continuous pedestrian movement along the street and facilitate crossings at each vehicular intersection. (See Appendix B for dimensions).
- Along Aldrich Street, sidewalks should be widened to 20 feet to allow for café extension zones and awnings that extend the activity within Town Center shops and restaurants. The use of higher quality paving accents should also be considered.

*Capitol Metro's typical transit shelter will be used throughout Mueller.*



- The use of light-colored concrete or other paving materials is encouraged to help mitigate heat island effect.
- In plaza areas and other areas of pedestrian focus, the use of higher quality pavement materials, such as brick, stone or unit pavers is encouraged.
- Along trails and other pedestrian pathways, where feasible, permeable pavers and porous pavements should be considered as an alternative to standard concrete to increase stormwater infiltration and groundwater recharge.

### ***Transit Shelters***

- Transit shelters should be of the same style, materials, and “Capital Metro Green” color as the typical Capital Metro transit shelter used throughout Austin (see photo above).
- Shelters should be scaled appropriately for the level of ridership anticipated at a particular stop.

### ***Site Lighting***

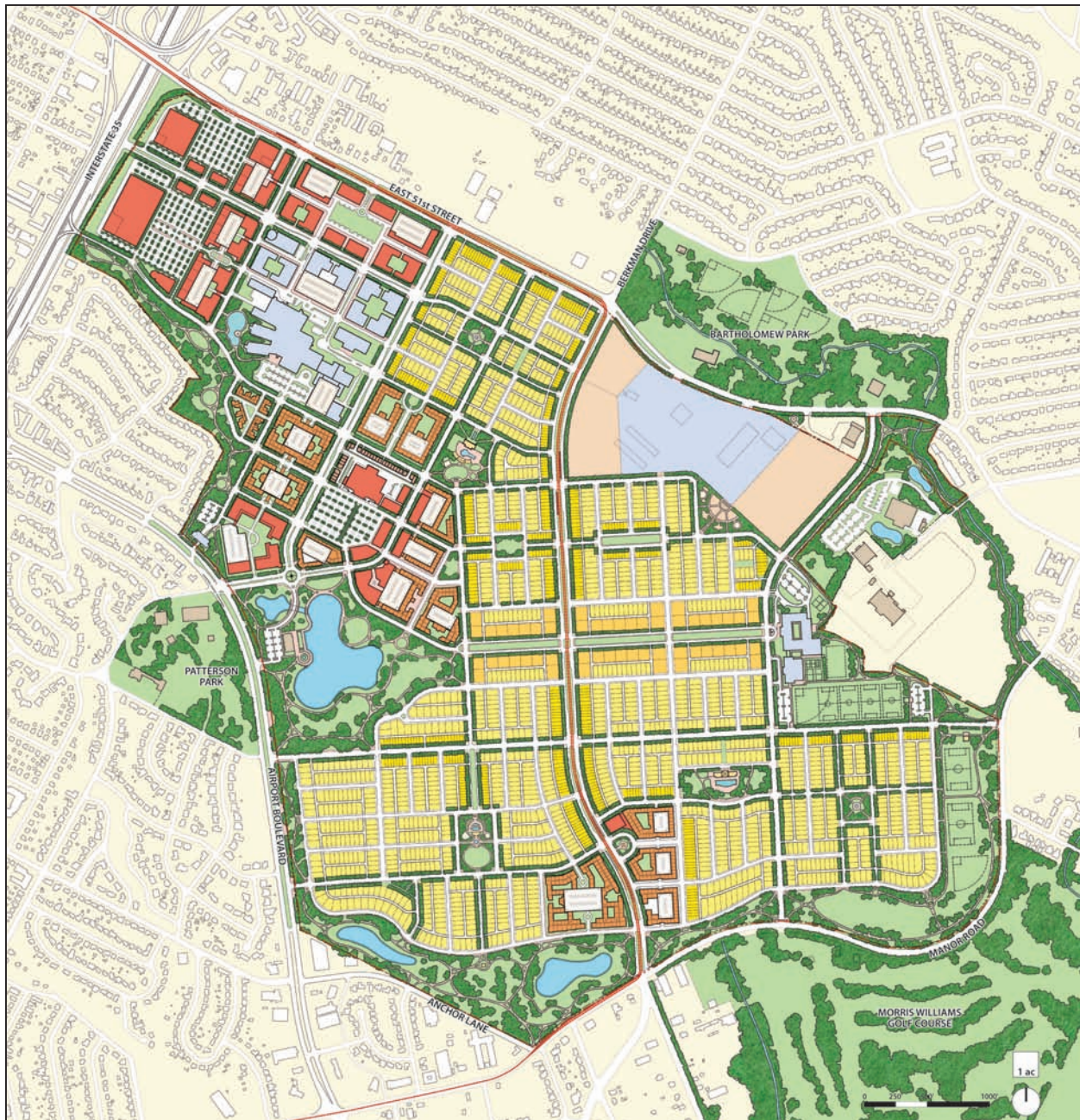
Lighting is important in adding to the attractiveness of the Mueller community, creating a sense of safety and security. Light equipment selections and lighting design should be made with a goal of eliminating glare, light trespass and light pollution.

- Lighting layout will be coordinated with proposed landscaping and existing trees to maximize light distribution and avoid conflicts.
- Light fixtures will be designed and lamped for both pedestrian and vehicular purposes. Lamping will be metal halide on major streets, in the Town Center, and as accent lighting for highlighting trees and site features or downlighting from tree canopies. High-pressure sodium will be used for street lighting within residential areas, consistent with surrounding residential areas.
- The 14-foot “Town Lake” decorative steel fixture (available from Austin Energy) will be used for pedestrian and street lighting within the parkway strip of most public streets.
- Only along Mueller and Barbara Jordan Boulevards will the taller, 30-foot “Cobrahead” fixture (also available from Austin Energy) be used. Where it is used, ornamental pole bases, poles and mast arms are encouraged.
- Fixtures will be adapted to comply with light trespass considerations as required.
- All fixtures will be painted a dark green color to match existing Capital Metro site furnishings.
- Decorative seasonal lighting (e.g. “Tivoli” lights) is encouraged on public streets within the Town Center.
- Lasers, searchlights and flashing lights are not permitted, unless otherwise reviewed and approved by the City of Austin.
- In the perimeter greenway, no lighting of the sports fields will be allowed in order to avoid the impact of glare on neighboring residents.
- Parking lot lighting must meet applicable City of Austin standards, and be designed to avoid light pollution by employing cut-offs that prevent light from being emitted above the horizontal plane.



*The Town Lake fixture will be the predominant street light standard at Mueller.*





## Illustrative Plan

- Civic/Institutional**  
Neighborhood school, recreation center, hospital, Austin Film Society, fire station
- Yard Houses**  
Single family detached
- Row Houses/Shop Houses**  
Townhouse, single family attached, live-work loft
- Mueller Houses**  
Condos/lofts with 4 to 6 units per house
- Mixed-Use Sites**  
Office, high density multifamily, retail
- Mixed Use Commercial**  
Retail, office, medical office, research development
- Mixed Use Residential**  
Office, high density multifamily, retail
- Publicly Accessible Open Space**