

APPENDIX A

MUELLER RESIDENTIAL LANDSCAPE DESIGN GUIDELINES

MUELLER

AUSTIN TEXAS

Original Edition
NOVEMBER 2004

REVISED SEPTEMBER 2018

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M U E L L E R

1. SUBMITTAL REQUIREMENTS

Residential homebuilders are required to submit typical landscape plans to the Mueller New Construction Council (NCC) for review as part of the New Construction Document Package application. (Applications are available at www.muelleraustinonline.com/ncc.php) All plans shall be in accordance with the Mueller Design Book including this appendix. All plans shall include the following “Landscape Plan Notes:”

1. A minimum of 50% of installed plant material for each lot shall be from the Mueller Native Plant Material List (refer to Appendix C). A minimum of 90% of installed plant materials for each lot shall be from the Plant List in Appendix C of the Mueller Design Book. No invasive plants or plants from the Do Not Plant List are allowed.
2. The minimum size of all plants shall be in accordance with the Plant List in the Mueller Design Book (refer to Appendix C).
3. Narrow areas of turf less than six feet (6') wide shall be avoided.
4. Plant beds shall have a minimum of six inches (6") topsoil with approximately 25% organic matter, and shall be free from debris and rocks larger than one inch (1") in diameter.
5. Where steel edging is used, the top of the edging shall be a maximum of one inch (1") above finished grade.
6. Trees shall not be planted in public utility easements.
7. Shade Trees shall be located to maintain the following minimum spacing requirements:
 - a. Minimum fifteen feet (15') between other shade trees
 - b. Minimum eight feet (8') from building foundationsOrnamental trees shall be substituted for required shade trees if these distances can not be maintained. Ornamental trees shall be located away from foundations at distances appropriate for species size and growth rate.
8. A minimum of four tree species shall be incorporated throughout the neighborhood. Species along a given street shall differ from the required street tree species. For a single block face, at least two different tree species shall be planted.

New Construction Document Package

The landscape plan shall illustrate landscape for a complete and specific block or block face, as appropriate, to allow evaluation of the relationship between landscape on adjacent lots, as well as evaluation of individual lot plans. Plans shall be at a scale of one inch equals twenty feet (1" = 20'), and depict all landscape, hardscape, and fencing improvements for areas within public view, including conditions for sideyards, corner lots, rear and side alleys, and pedestrian walkways.

All materials used in the final landscape plan must be clearly identified, including but not limited to plant species and container size, edging, mulch, fencing, gates, walls and any additional materials. Plans shall also show the location for each type of fencing proposed, dimensions of fence layout demonstrating compliance with setbacks, street trees and public utility easements.

Scaled construction details (section and elevation) for each type of fencing, walls, or other hardscape features such as arbors shall be provided.

A plan for the model home(s) shall be included in the submittal. All landscaping for the model homes is considered to be in public view and shall comply with the guidelines.

An experienced landscape designer or landscape architect shall be consulted to ensure appropriate and functional landscape designs. The name and contact information of the landscape designer/architect shall appear on all the drawings submitted.

Homebuilders shall also submit information on the sources who will be providing their street trees. Builders are to select from the following approved street tree vendors:

- Environmental Design 800.376.4260
- Peerless Farms 830.663.3651
- Tree Town USA 979.677.3090

However, other sources may be used if approved by the NCC. For other sources, submit the name and location of the source, photos of representative trees shown with a person or scale and confirmation from the grower that the trees meet the standards of the American Nursery and Landscape Association.



Varied Plant Beds



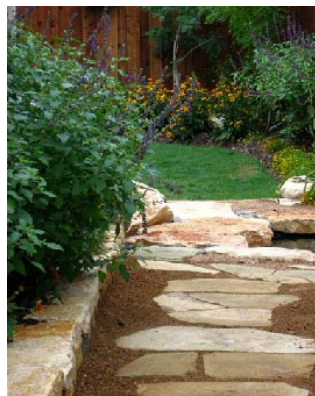
Ornamental Grasses



Small Spaces



Small Spaces



Little or No Turf

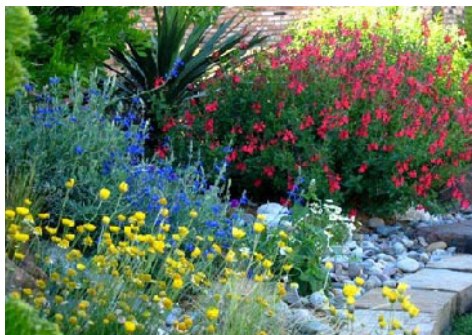
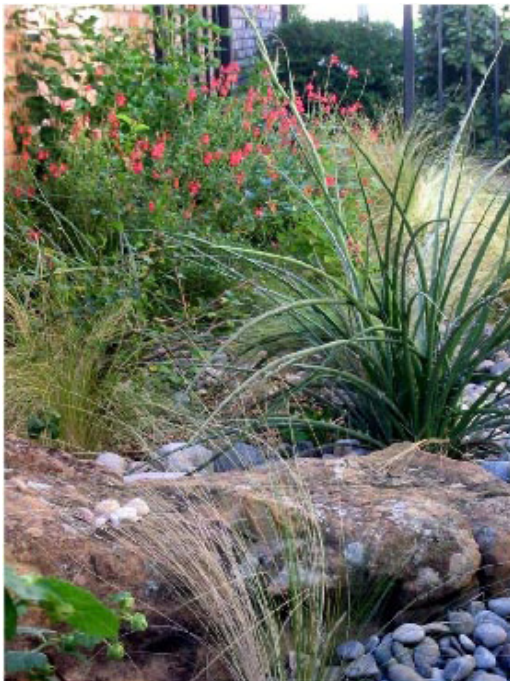


2. LANDSCAPE CONTEXT

The Texas Native Landscape: Central Texas is home to a special landscape, the Blackland Prairie. The Blackland Prairie provides homes for small mammals, birds, lizards, and insects in its grasses, wildflowers and trees. Today, there are few native prairies left. The restoration of the Blackland Prairie in the Mueller Southwest Greenway has returned an important piece of this diminishing ecosystem. Integrating native prairie plants into private yards has allowed birds and butterflies to pollinate other gardens, and has also begun to reconnect this endangered ecosystem.

A common misconception of native landscapes is that they are unsightly and hard to maintain. In fact, the use of native plant material can achieve a manageable garden that also plays an important role in the environment. Masses of one species will eliminate a scattered appearance that is often associated with a native landscape. Grouping a single species into clusters of five to seven plants helps to identify blocks of color and texture.

In creating a Texas native landscape, homeowners and visitors can appreciate the beauty of their neighborhoods within the context of the true Blackland Prairie.



Native Plant Material

3. FENCING

Fencing:

The intent of the fencing requirements is to set a standard for the home builders in order to provide a cohesive community character while allowing flexibility in design. Builders may offer multiple fence design options and are encouraged to offer fence “upgrades” to homebuyers. These guidelines describe preferred treatments per specific location of the fencing: privacy fencing (interior side yards and alleys), front yards and corner lots.



Metal fence and brick



36" Height maximum, not solid

Fencing:

- The builder shall be responsible for installing any fencing (the master developer will not install a fence) along the rear and side property lines of each residence, except where specifically stated otherwise, in conformance with these guidelines and the Mueller Design Book.
- To insure compatibility of fence design throughout the community, all fences visible from public rights-of-way or access easements must be approved by the NCC.
- Fences shall be compatible with the design of the building.
- Fences shall be installed so the “finished” side faces the public. Having both sides finished is preferred.
- All fencing is to be stair stepped down in areas exceeding a 5% slope. For any areas with a 0-5% slope, fencing is to run parallel to the slope.
- For gates located on slopes, the top of the gate shall remain level.



Top rail details reduce solid wall look

Privacy Fencing

(Interior Side Yards & Alleys):

- Side yard & alley fencing shall be a maximum height of six feet (6'), constructed with quality western red cedar or treated pine.
- Other fence materials (tubular steel, aluminum, & bamboo) may be used if builder is seeking to achieve points in Austin Energy Green Building Program rating system through use of such materials.

- Use of a six foot (6') masonry wall is acceptable instead of a wood privacy fence. Builders are to submit wall details to NCC.
- Solid wood fences with horizontal & vertical details giving scale and dimension to the fence are encouraged. Fencing along alleys should have open top rail detailing of approximately eighteen inches (18").
- A hinged gate shall be installed in the most appropriate side or rear yard. Double gates are not permitted.
- Along alleys, permitting some views into the back yard is encouraged. The setback for alley fencing at the rear of lots shall vary along the alley.
- Side yard fences shall be set back a minimum of ten feet (10') from front building facade. Actual setbacks shall vary from one lot line to another but are not required to vary between adjacent houses sharing a side yard fence. Fences shall be in a logical location that accommodates the floor plan of each home.
- **Acceptable Privacy Fence Materials:** Wood (western red cedar, treated pine), Masonry (see walls)
- **Unacceptable Privacy Fence Materials:** Used Wood Fencing, Chain Link, Plastic Lumber, Split Rail, Tubular Steel, Aluminum, Traditional Picket, Vinyl



Top rail detail



Open for friendly encounters and visibility

Front Yard Fencing:

- Front yard fences may be a maximum height of thirty-six inches (36") including any masonry which may be incorporated at a maximum height of eighteen inches (18").
- Front yard fencing may be used along the entire length of a corner lot side yard or may tie into privacy fencing.
- **Acceptable Front Yard Fence Materials:** Wood (western red cedar, treated pine), Tubular Steel, Aluminum, Bamboo, Stone, Masonry (see walls), and Traditional Picket
- **Unacceptable Front Yard Fence Materials:** Chain Link, Plastic Lumber, Split Rail, and Vinyl.



Metal fence



Low picket fence

Corner Lot Fencing:

- Fencing along the street side of a corner lot may be either a continuation of front yard fencing at thirty-six inches (36") tall or privacy fencing with open top rail detailing.
- Side yard privacy fence shall be set back at least ten feet (10') from the front building facade. Actual setbacks shall vary from one lot line to another but are not required to vary between adjacent houses sharing a side yard fence. Fences shall be in a logical location that accommodates the floor plan of each home.
- Privacy fencing adjacent to a street shall be less than 2/3 the length of the building structure (house & garage) except as necessary to enclose courtyard spaces. Exceptions for irregular lots will be reviewed individually.
- Fencing shall be a minimum of eighteen inches (18") from the back of public sidewalks.
- Masonry columns may be incorporated into wood fencing. Masonry or wood columns (eight inch by eight inch (8" x 8") minimum) shall be incorporated into a length of fencing that is thirty-two feet (32') or more in length and adjacent to a street or alley.



Vertical fence posts add dimension



Open top rail detail



Fence setback opens front yard

4. WALLS AND WALKWAYS

The intent of the wall & walkway requirements is to provide the builders and homeowners options for front yard, side yard and alley conditions.

Walls:

- All walls visible from public rights-of-way and access easements must be approved by the NCC.
- Walls must be made of or faced (veneered) with masonry (stone, stucco, or approved equal). Do not use standard concrete blocks, plain or painted.
- Cut or fill slopes along the exterior of the wall shall be smooth and taper gradually to match existing grades.
- Walls shall be designed as an integral part of the dwelling design. Masonry that matches the dwelling exterior is encouraged within the unit boundary.
- Unless otherwise specified, maximum height of decorative walls shall be measured from the finished ground elevation on the highest side of the submitted wall and shall not exceed six feet (6') in height. This includes corner lots, side yards, and alley walls. These walls may take the place of a six foot (6') wood privacy fence.
- **Acceptable Wall Materials:** Masonry, Brick, Stone, Stucco, Split-face Concrete Block with cap.
- **Unacceptable Wall Materials:** Standard Concrete Block, plain or painted



Six foot high privacy masonry wall



Split-face concrete block wall with cap



Masonry wall with cap



Low stucco wall

Front Yard:

- Low retaining walls (up to eighteen inches (18”) in height) are permitted along the street-fronting property line.
- Unless otherwise specified, maximum height of decorative walls shall be measured from the finished ground elevation on the highest side of the submitted wall.
- Retaining walls that are partially below the finished grade or walls used as planters shall be moisture-proofed to avoid unsightly water staining.
- Terraced areas must be planted and maintained with approved plant materials.
- **Acceptable Wall Materials:** Masonry, Stone, Brick, Stucco, Splitface Concrete Block (with cap), Architectural Concrete
- **Unacceptable Wall Materials:** Standard Concrete Block, plain or painted



Low concrete wall

Walkways:

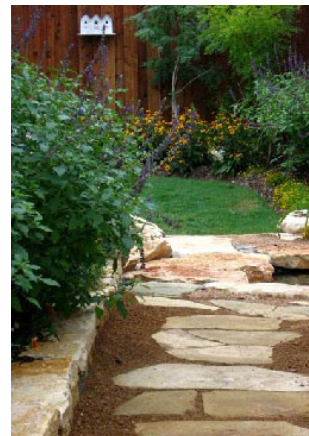
- In areas of public view, use of decorative paving materials is encouraged.
- **Acceptable Walkway Materials:** Broom-finish Concrete, Washed-Aggregate Concrete (aggregate less than 3/8”), Stamped & Stained Concrete, Decomposed Granite, Stone, Brick or other Unit Paver



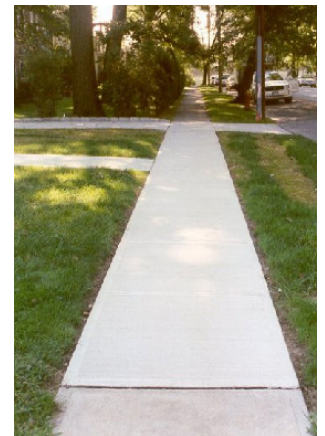
Stamped & stained concrete



Decomposed granite & stone



Flagstone



Broom finish concrete

5. EDGING, MULCH & SOIL

Besides adding aesthetic value and defining landscape beds, these materials serve practical functions. Edging adds clean edges and eases maintenance. Wood and rock mulches help the soil retain moisture and suppress weeds. Soil depth and quality is important for plants to grow and thrive. Landscape boulders also shade plant roots and create a setting for native plants.



Stone



Steel



Concrete

Edging:

- Landscape beds shall be bordered with an acceptable edging material. Edging shall not be installed along sidewalks.
- **Acceptable Edging Materials:** Stone, Steel, Concrete
- **Unacceptable Edging Materials:** Plastic Products, Wood Posts, Landscape Timbers, Rail Road Ties, Scalloped Precast Concrete Edging.
- Where steel edging is used, the top of the edging shall be a maximum of one inch (1") above finish grade of adjacent lawn areas. The top of the edging shall be flush with paving where it meets sidewalks or hardscape features.

Mulch:

- Wood, rock or decomposed granite mulch may be used in private and public properties. Trees planted in a rock mulch bed must have organic mulch around the base of the trunk per City of Austin standards. Mulch in right-of-ways must include plant material. Mulch only areas may be incorporated to allow pedestrian access from street to sidewalks. No space greater than 4' wide shall be without plants.
- Right of way planting must have 3" deep organic mulch in plant beds unless planting in gravel bed. All trees must have 3" deep organic mulch that is twice the diameter of the root ball.
- **Acceptable Mulch Materials:** Shredded Cedar, Shredded Hardwood, River Rock, Decomposed Granite
- **Unacceptable Mulch Materials:** Lava Rock, Rubber Mulch, Color-Enhanced Wood Mulch, Cypress or Redwood Mulch.

Soil:

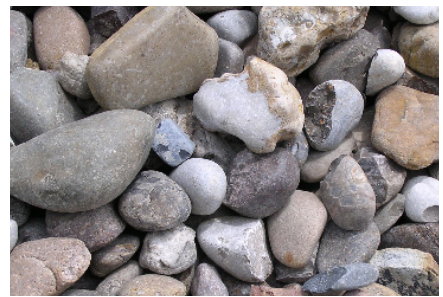
- Turf grass areas shall have at least two inches (2") of topsoil.
- Planting beds shall have at least six inches (6") of topsoil
- Tree planting areas shall be a minimum of 12 inches (12") of friable native loam soil. Planting in relatively undisturbed existing native soils is encouraged. All other planting areas must have a minimum soil depth of 12 inches (12") within a radius of six feet from the tree trunk.
- All soil shall be free of debris and rocks greater than one inch (1") in diameter.



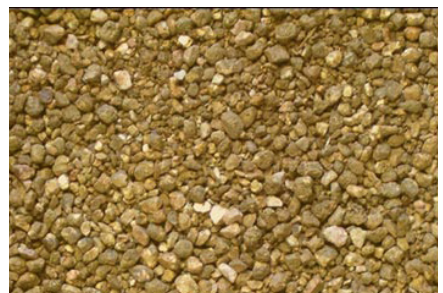
River rock



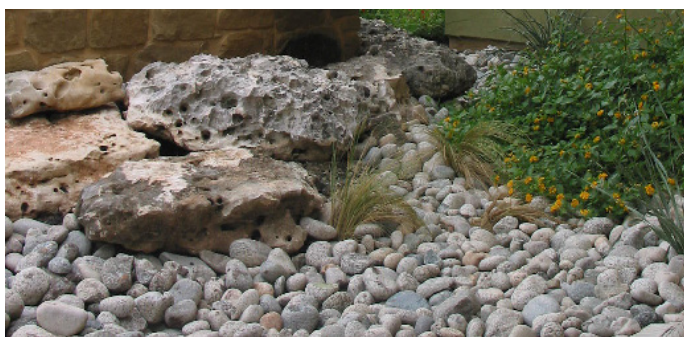
Wood



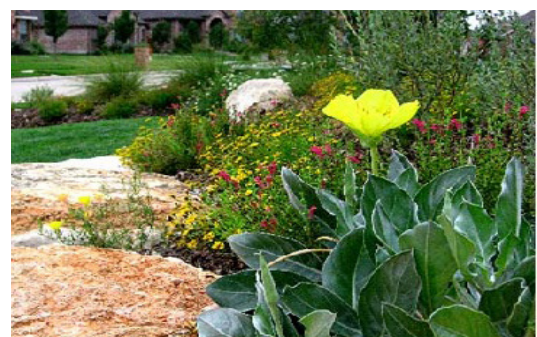
River rock



Decomposed granite



Landscape boulders



6. RIGHT OF WAY PLANTING & IRRIGATION

Mueller has a unique Right of Way planting scheme that makes this community special. Each street showcases a specific tree type. Trees are planted evenly along the road to create a uniform look to each street. Irrigation is essential to maintaining these plantings.

Parkway Strips:

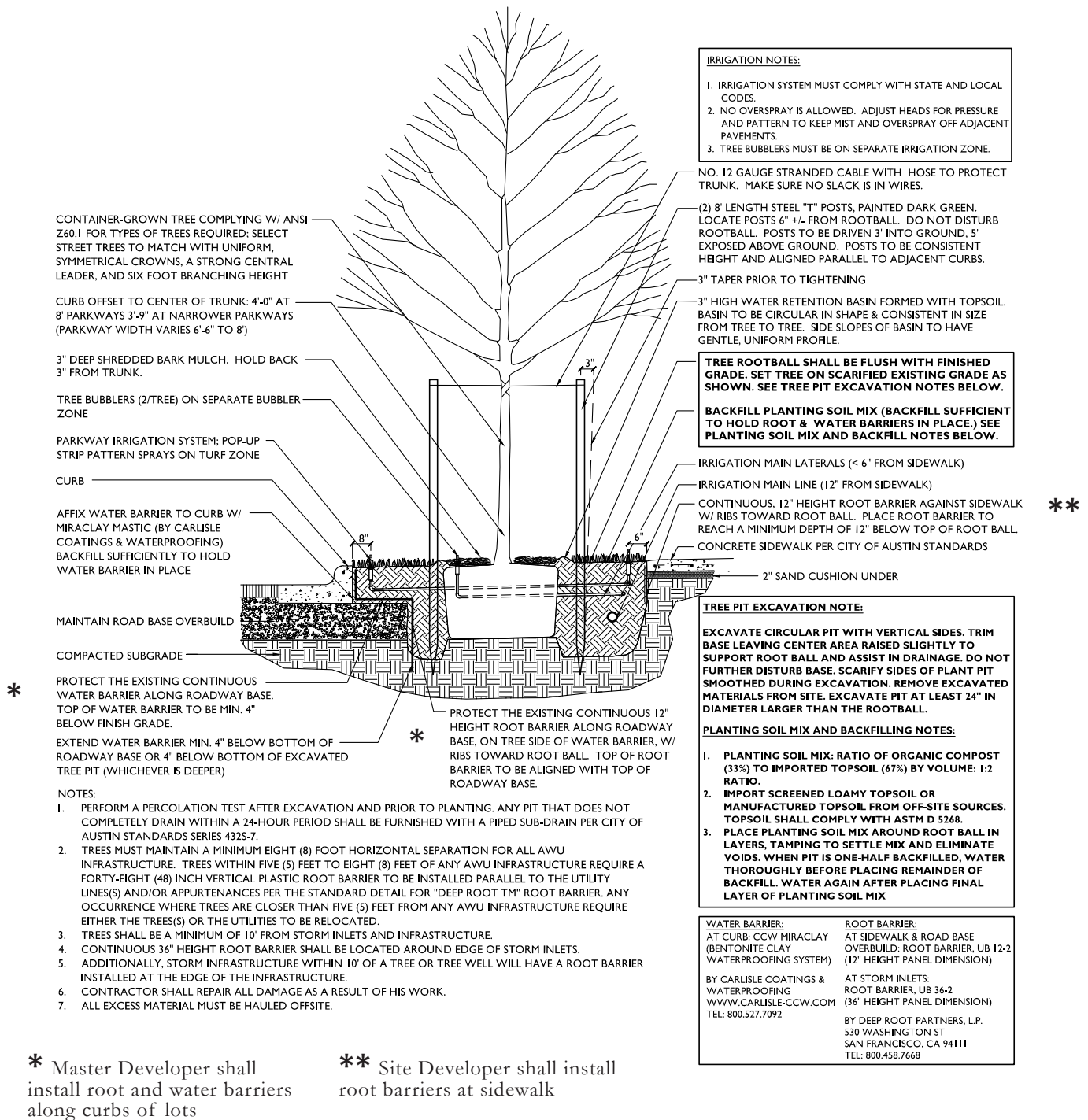
- Parkway strips should be planted with low-maintenance turfgrass, Bermuda Tif 419, or plant material with rock mulch. Planted areas may use rock or decomposed granite mulch with maximum 4' wide strip of bare mulch, or area without plants, to allow pedestrian access. Unplanted areas of rock mulch may also incorporate flagstones flush with the grade. Plants shall be less than 30" tall without spines or thorns.

Street Trees:

- Street trees planted in turfgrass or rock mulch shall have organic mulch around the base of the trunk per City of Austin standards.
- Trees must maintain distance from utilities. See Approved Street Tree Planting for additional information.
- Stakes shall be installed when a tree is planted. Stakes shall be placed less than 2/3 the height of the tree with a flexible material that allows for some movement of the trunk all the way to the ground. All stakes to be removed after 1 year from planting.

Irrigation:

- All irrigation must comply with all state and local codes including addition of weather based controller and rain shut off device.
- Areas less than six feet (6') wide must be drip system
- No overspray or runoff allowed
- Irrigation emission device not to exceed the manufacturer's recommended operating pressure and no component of the irrigation system shall deviate from the manufacturer's recommended use of the product.
- Master developer to provide point of connection for common area irrigation meter and electric service for Row Home Lots. Site developer responsible for providing common area irrigation system complete in place including irrigation meter from the City of Austin, electric service application fees, purchase and installation of the "V.I.T. Strong Box" to house associated electric meter for Row Home Lots.



APPROVED STREET TREE PLANTING 9/22/16

This detail has been approved by the City for license agreements for plantings in the right of way. Detail may be revised. Consult with Master Developer for most current detail.

7. LANDSCAPE REQUIREMENTS

Design Intent:

The design intent of the Texas native landscape is to provide a look that can be easily identified with the central Texas Blackland Prairie. Planting plans shall emphasize ornamental grasses and other plants that are native to the Blackland Prairie & Central Texas. Residential Landscape Design Guidelines will be provided by Master Developer for each section including specific landscape requirements per lot type.

Landscape Requirements:

1. All landscape planting & irrigation is to follow all applicable state and local codes & regulations.
2. Irrigation of each yard shall include plant beds, turf and any other landscaping between fence and street. Tree bubblers must be on separate irrigation zone.
3. No overspray is allowed. Adjust heads for pressure and pattern to keep mist and overspray off adjacent pavements.
4. Group plants based on sun and water requirements.
5. At minimum, 50% of plant material shall come from Mueller Native Plant List and 90% of the total plant material from the Plant List in Appendix C of the Mueller Design Book. No invasive plants or plants from the Do Not Plant List are allowed.
6. Plant beds shall be sized appropriately to allow correct spacing of plants within the beds; avoid bare areas of mulch greater than four square feet.
6. Non-turf planting, to include vines and groundcover plants of appropriate size, is required between public sidewalks and street-facing side yard fencing, where the distance between the sidewalk and the fence is less than three feet (3'). Such planting shall be appropriate to the width of the planting area, and designed to minimize encroaching onto the sidewalk. These plantings are a required addition to the minimum landscape requirements.

7. The required number of vines shall be planted beside privacy fencing where practical, such as in the alley. The intent is to add interest to areas without plant beds.
8. Avoid locating turf in narrow areas that are less than three feet (3') wide. Narrow turf areas shall be avoided between beds on adjacent lots, as well as on individual lots.
9. Avoid planting plants with spines or sharp edges near walkways or pedestrian areas.
10. Use of rock mulch, decomposed granite, or river gravel is encouraged in areas that are too narrow for lawn or tend to remain wet. No more than 10% of a yard within public view may contain an unplanted area. If rock mulch, decomposed granite, or river gravel is used in narrow spaces, plant material shall be incorporated to soften these spaces.
11. The minimum size of all plants shall be in accordance with the Mueller Design Book Appendix C.
12. Per the Mueller Design Book, buildings on corner lots shall present attractive elevations to both streets. The required plant materials shall be distributed and designed to provide attractive landscaping on both streets.
13. Plant beds shall vary from house to house. Layout of plant beds on one lot shall take into consideration beds on neighboring lots.
14. Right of Way Planting shall be low-maintenance turfgrass, Bermuda Tif 419, or plant material with rock mulch. Planted areas may use rock or decomposed granite mulch with maximum 4' wide strip of bare mulch, or area without plants, to allow pedestrian access. Unplanted areas of rock mulch may also incorporate flagstones flush with the grade. Plants shall be less than 30" tall without spines or thorns. Street trees planted in turfgrass or rock mulch shall have organic mulch around the base of the trunk per City of Austin standards.

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APPENDIX B

MUELLER COMMERCIAL LANDSCAPE DESIGN GUIDELINES

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1. INTENT

These guidelines are intended to provide more detailed standards and technical information while maintaining the creative latitude the Mueller Design Book (MDB) promotes. These guidelines do not replace any portion of the MDB which shall remain the primary reference for developers and their design professionals, referred to as “Developer.” All development must comply with City of Austin and all applicable state and local codes and regulations.

These commercial landscape guidelines apply to the following planning areas: the Town Center, the Employment Centers, and sites other than single-family housing within Mueller Neighborhoods, including apartment housing. They do not apply to parks and Mueller Houses.

The intent of the landscape guidelines is to encourage and aid in thoughtful planning of outdoor spaces on non-residential sites. Well-designed open spaces weave sites together, enhance pedestrian activity, and extend usable space to the outdoors. Site designers should pay careful attention to pedestrian circulation, and strive to create convenient and hospitable connections to adjacent sites, indoor uses, and outdoor gathering spaces. Such spaces are highly encouraged, whether in the form of an intimate and restful seating area, or a plaza bustling with activity. The possibilities are limitless, and every site has room to develop outdoor spaces that are truly welcoming. Materials and design vocabulary should be carefully chosen to unify the site and help build a distinctive identity. Plant materials remain an important part of design, providing beauty as well as significant environmental benefits. All aspects of design should combine to bring about memorable spaces that are integral to their sites.

2. LANDSCAPE CONTEXT

Central Texas is home to a special landscape, the Blackland Prairie. The Blackland Prairie provides habitat for small mammals, birds, lizards, and insects in its grasses, wildflowers and trees. Today, there are few native prairies left. Catellus has engaged the Lady Bird Johnson Wildflower Center to help restore the Blackland Prairie in the Mueller Southwest Greenway, bringing back an important piece of this diminishing ecosystem. Integrating native prairie plants throughout the community will not only allow birds and butterflies to pollinate other gardens, it will also begin to reconnect this endangered ecosystem.

A common misconception of native landscapes is that they are unsightly and hard to maintain. In fact, native plant material can be utilized to create well-organized and manageable landscapes that also play an important role in the environment. Use of native plants will tie new development to its historic landscape and create attractive and multi-functional outdoor spaces.

In creating a Texas native landscape, residents and visitors can appreciate the beauty of their community within the context of the true Blackland Prairie.



Native Plant Material

3. SUBMITTAL REQUIREMENTS

Project developers are required to submit landscape plans to the Mueller New Construction Council (NCC) for review as part of the Architectural Master Plan, Final Design, and the New Construction Document Package applications. (Applications are available at www.muelleraustinonline.com/ncc.php) Developers must use the current application. All plans shall be in accordance with the Mueller Design Book including this Appendix B, Mueller Commercial Landscape Design Guidelines. All plans shall include the “Landscape Plan Notes” found on this page.

A landscape architect registered by the State of Texas shall be consulted to ensure appropriate and functional landscape designs. The name and contact information of the landscape architect, as well as his / her seal, shall appear on all drawings submitted for the New Construction Document Package.

Project developers shall submit information on the sources who will be providing their street trees. Developers are to select from the following approved street tree vendors:

- Environmental Design 800.376.4260
- Peerless Farms 830.663.3651
- Tree Town USA 979.677.3090

However, other sources may be used if approved by the NCC. For other sources, submit the name and location of the source, photos of representative trees shown with a person or scale and confirmation from the grower that the trees meet the standards of the American Nursery and Landscape Association.

Landscape Plan Notes:

1. No invasive plants or plants from the Do Not Plant List are allowed.
2. Turf grass species must be from the Mueller Design Book Appendix C and in the Grow Green guide from the City of Austin.
3. A minimum of 50% of plant bed areas on each site shall be planted with plants from the Mueller Native Plant Material List. A minimum of 90% of bed areas shall be planted with plants from the Plant List in Appendix C of the Mueller Design Book.
4. The minimum size of all plants shall be in accordance with the Mueller Design Book Appendix C.
5. Narrow areas of turf less than six feet (6') wide shall be avoided.
6. Where steel edging is used, the top of the edging shall be a maximum of one inch (1") above finished grade.
7. Trees shall not be planted in public utility easements.

4. LANDSCAPE REQUIREMENTS

The intent of the Texas native landscape guidelines is to provide a look that can be easily identified with the central Texas Blackland Prairie. Planting plans shall emphasize ornamental grasses and other plants that are native to the Blackland Prairie & Central Texas.

Note: All landscape plans are subject to NCC approval and must be reviewed.

1. All landscape planting & irrigation is to follow all applicable codes & regulations.
2. Irrigation of each site shall include plant beds, turf and any other landscaping between building and street. Developers shall design landscape irrigation to use reclaimed water, which the City of Austin currently plans to provide to Mueller. A variance may be requested if the Developer has specific health and safety concerns. Alternative watering methods such as rain water harvesting are encouraged. Tree bubblers must be on separate irrigation zone.
3. No overspray is allowed. Adjust heads for pressure and pattern to keep mist and overspray off adjacent pavements.
4. Group plants based on sun and water requirements.
5. A minimum of 90% of bed areas shall be planted with plants from the Plant List in Appendix C of the Mueller Design Book. No invasive plants or plants from the Do Not Plant List are allowed.
6. Plant beds shall be sized appropriately to allow correct spacing of plants within the beds; avoid bare areas of mulch greater than four square feet.



Non-Turf Planting

7. Non-turf planting, to include vines and ground-cover plants of appropriate size, is required between public sidewalks and street-facing fencing and walls, where the distance between the sidewalk and the fence is less than three feet (3'). Such planting shall be appropriate to the width of the planting area, and designed to minimize encroachment onto the sidewalk. Avoid locating turf in narrow areas that are less than six feet (6') wide.
8. Avoid planting plants with spines or sharp edges near walkways or pedestrian areas.
9. Use of rock mulch, decomposed granite, or river gravel is encouraged in areas that are too narrow for lawn or tend to remain wet. If rock mulch, decomposed granite, or river gravel is used in narrow spaces, plant material shall be incorporated to soften these spaces. All trees must have 3" deep organic mulch that is twice the diameter of the root ball.
10. Refer to Appendix C of the Mueller Design Book for plant size requirements.
11. Street tree locations and their plant species shall be determined by the master developer. Coordinates of their locations will be provided.
12. Tree Spacing: Trees are to be planted three feet-three inches (3'-9") from the back of curb, and spaced at approximately twenty-five feet (25') on center, maintaining an even rhythm and aligning with trees on opposite side of street where possible. A tree's location may be adjusted as required to avoid conflicts with utilities as actually installed.



River Gravel



Street Trees



Landscaping on All Streets



Linear Planting

13. Existing Conditions: Developer is responsible for verifying site conditions that affect planting and irrigation. Minimum separations between trees and utility lines shall be in accordance with the City of Austin Environmental Criteria Manual. See “Approved Street Tree Planting” detail.
14. Required plant materials shall be distributed and designed to provide attractive landscaping on all streets.
15. A minimum distance of eight feet (8’) shall be maintained between shade trees and building foundations. Distance shall be measured from the center of tree to edge of foundation.
16. When possible, trees are required in service areas along service access drives with the intention of shading and adding interest.
17. Linear plantings, due to narrow landscape areas or buffer requirements, greater than thirty feet (30’) in length shall include multiple plant species. When linear plantings occur along architecture, fencing and walls, plants selected shall complement the dimensional variation of the structures. Where possible, buffer planting beds shall vary in width, and incorporating landscape berms is encouraged.

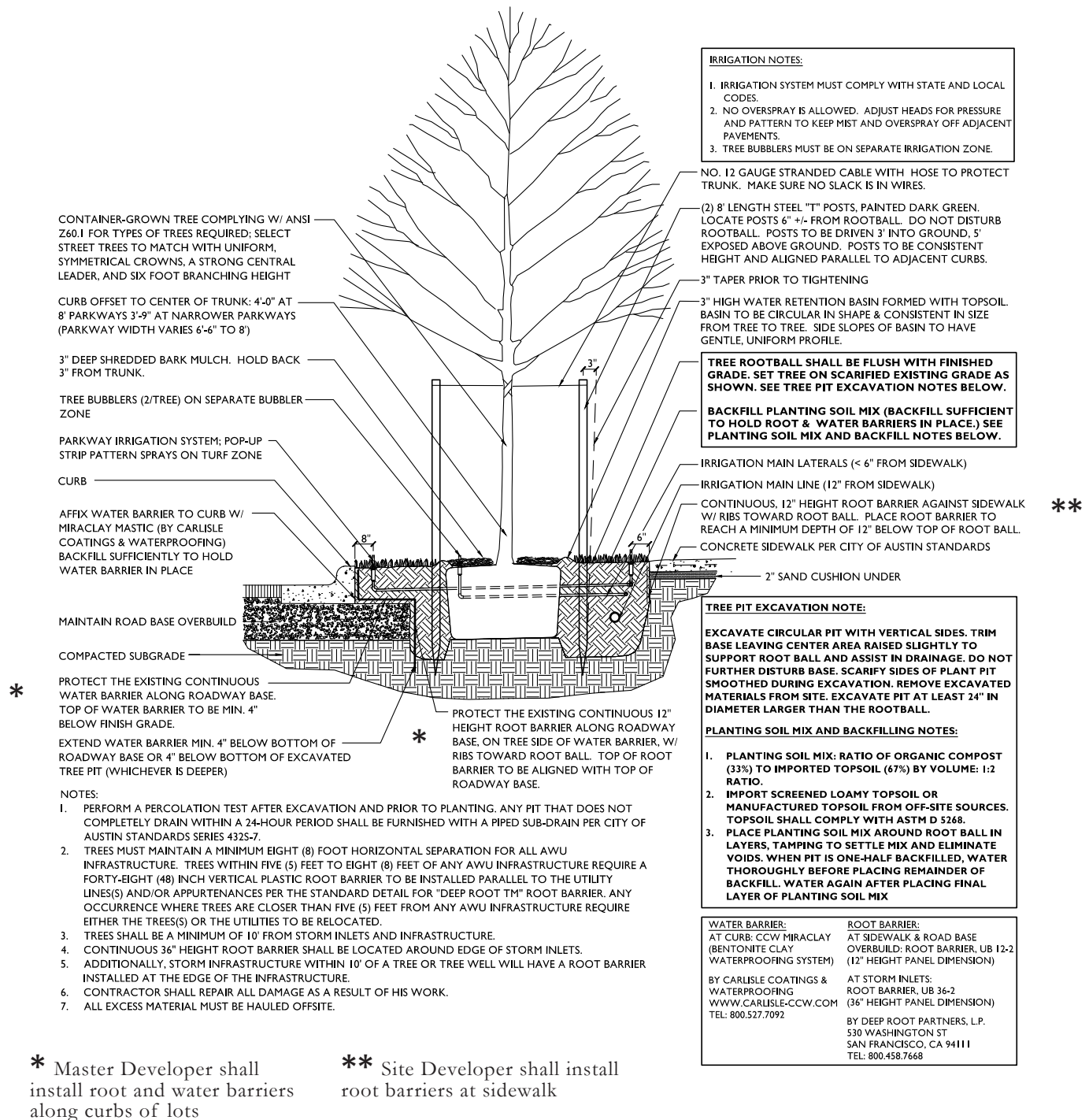
18. Gravel, decomposed granite, or stone paving may be used in landscaped parking islands along parking spaces. If provided, they shall have a width of twelve to eighteen inches (12"-18").
19. Landscaping is required near all public entries into buildings via planting beds, planters or pots.
20. Planting in tree wells shall include groundcovers, grasses, and shrubs no taller than 18" high.



Gravel in Parking Island



Landscape Near Entry



APPROVED STREET TREE PLANTING 9/22/16

This detail has been approved by the City for license agreements for plantings in the right of way. Detail may be revised. Consult with Master Developer for most current detail.

5. RIGHT OF WAY PLANTING & IRRIGATION

Parkway Strips:

- Parkway strips should be planted with low-maintenance turfgrass, Bermuda Tif 419, or plant material with rock mulch. Planted areas may use rock or decomposed granite mulch with maximum 4' wide strip of bare mulch, or area without plants, to allow pedestrian access. Unplanted areas of rock mulch may also incorporate flagstones flush with the grade. Plants shall be less than 30" tall without spines or thorns.

Tree Wells:

- Uniform decorative tree guards should be used around each of the tree wells to discourage pedestrians compacting soils and to project the planting. Planting in the tree wells shall include groundcovers, grasses, and shrubs no taller than 18" high.
- Electrical outlets may be installed in tree wells for tree lighting.
- Tree guards may be installed to protect planting.

Street Trees:

- Street trees planted in turfgrass or rock mulch shall have organic mulch around the base of the trunk per City of Austin standards.
- Trees must maintain distance from utilities. See Approved Street Tree Planting for additional information.
- Stakes shall be installed when a tree is planted. Stakes shall be placed less than 2/3 the height of the tree with a flexible material that allows for some movement of the trunk all the way to the ground. All stakes to be removed after 1 year from planting.

Irrigation:

- All irrigation must comply with all state and local codes including addition of weather based controller, rain shut off device, and water budget report to be submitted to City of Austin.
- Irrigation system installed complete in place and shall utilize reclaimed water. Right of Way irrigation shall be separate from site irrigation system. Right of Way irrigation shall tie into the overall street irrigation system and shall be purple pipe as required for reuse water.
- Areas less than six feet (6') wide must be drip system
- No overspray or runoff allowed
- Irrigation emission device not to exceed the manufacturer's recommended operating pressure and no component of the irrigation system shall deviate from the manufacturer's recommended use of the product.

6. EDGING, MULCH AND SOIL

Besides adding aesthetic value and defining landscape beds, edging, mulch, and soil serve practical functions. Edging adds clean edges and eases maintenance. Wood and rock mulches help the soil retain moisture and suppress weeds. Soil depth and quality is important for plants to grow and thrive. Landscape boulders also shade plant roots and create a natural setting for native plants.



Stone



Steel



Concrete

Edging:

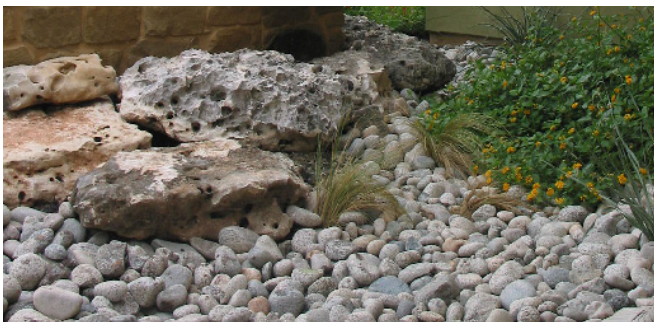
- Landscape beds shall be bordered with an acceptable edging material. Edging shall not be installed along sidewalks.
- **Acceptable Edging Materials:** Stone, Steel, Concrete.
- **Unacceptable Edging Materials:** Plastic Products, Wood Posts, Landscape Timbers, Railroad Ties, Scalloped Precast Concrete Edging.
- Where steel edging is used, the top of the edging shall be a maximum of one inch (1") above finish grade of adjacent lawn areas. The top of the edging shall be flush with paving where it meets sidewalks or hardscape features.

Mulch:

- Wood, rock or decomposed granite, or glass mulch may be used in commercial properties. Trees planted in a rock mulch bed must have organic mulch around the base of the trunk per City of Austin standards. Mulch in right-of-ways must include plant material. Mulch only areas may be incorporated to allow pedestrian access from street to sidewalks. No space greater than 4' wide shall be without plants.
- **Acceptable Mulch Materials:** Shredded Cedar, Shredded Hardwood, River Rock, Decomposed Granite, Glass.
- **Unacceptable Mulch Materials:** Lava Rock, Rubber Mulch, Color-Enhanced Wood Mulch, Cypress or Redwood Mulch.

Soil:

- Turf grass areas shall have at least two inches (2") of topsoil.
- Planting beds shall have at least six inches (6") of topsoil containing 25% organic material.
- All soil shall be free of debris and rocks greater than one inch (1") in diameter.
- Tree planting areas shall be a minimum of 12 inches (12") of friable native loam soil. Planting in relatively undisturbed existing native soils is encouraged. All other planting areas must have a minimum soil depth of 12 inches within a radius of six feet from the tree trunk.
- All soil shall be free of debris and rocks greater than one inch (1") in diameter.



Landscape Boulders



River Rock



Wood Mulch



Decomposed Granite



Glass Mulch

7. LANDSCAPE FEATURES

Water Features, Shade Structures and Public Art:

Developers are encouraged to provide water features, shade structures and public art throughout their projects, to contribute to the unique character of the Mueller development. These features will create identities for non-residential areas within Mueller, helping the areas grow into unique destinations, and providing enhanced experiences and economic benefits for the overall community.



Water Feature



Shade Structure

- **Water Features:** Water features can affect the sound quality of a space, and even make rainwater visible and artful. When provided, water features shall be designed to use water efficiently.
- **Shade Structures:** Providing shade through use of either structures or shade trees is important to provide respite from the sun. Using shade structures in combination with tree cover is encouraged to promote outdoor settings for dining, relaxation, art exhibitions, live bands, and other uses. Shade structures may be constructed of wood, metal, fabric or other architectural materials approved by the NCC. Supports may be constructed of metal, wood, stone or attached to a building.
- **Public Art:** Art is an integral part of the Mueller development. Art installations may be multi-functional, incorporating water, shade structures, site furnishings and other items. Public art installations may be required to be reviewed and approved by the NCC.

8. SITE FURNISHINGS

Site furnishings have the potential to impact and enhance user experience. Developers shall strive to provide furnishings complementary to site design in convenient and appropriate locations. These guidelines are intended to provide basic standards for site furnishing.

Developers are encouraged to expand upon these standards to create a palette unique to their site. Also, there may be opportunities for site furnishings to be considered as public art installations. All site furnishings shall be reviewed and approved by the NCC, including but not limited to lighting, seating, trash and recycling receptacles, drinking fountains, bike racks, tree grates, bollards, planters and pots, signage, and drain covers. Specific furnishing selections for Mueller Town Center may be defined and required as Town Center design progresses, refer to Aldrich Street District Streetscape Manual.

Parking Lot and Site Lighting:

- The standard light fixture is the Aeris architectural area light by Lithonia Lighting. The color shall be the Lithonia natural aluminum, ABL code DNA.
- The required height for the fixture is fourteen (14) feet.
- The required lamp type is metal halide.
- Lamp wattages shall be no higher than wattages as recommended by the Illuminating Engineering Society of North America (IES). Unless otherwise recommended, lamps shall be 250 watts.
- Mueller Town Center light fixture is Bega pendant 6408 S, cable-suspended, full cutoff.



Site Lighting

Seating:

- Seating shall be distributed throughout the site for greater pedestrian comfort and convenience. Key places seating are along sidewalks, in outdoor gathering spaces and plazas, and near building entries.
- The standard bench is the Neoromantico bench by Landscape Forms. A variety of seating options may be provided in accordance with the site programming.
- Where practical, provide trees or structures to shade seating and increase usability.
- Mueller Town Center bench is Neoliviano(69”) by Landscape Forms.



Seating



Trash and Recycling Receptacles



Drinking Fountain



Bike Racks

Trash and Recycling Receptacles:

- Trash and recycling receptacles shall be provided along sidewalks, at outdoor gathering spaces, at transit stops, and any points that are appropriate and convenient for waste disposal. Recycling receptacles must be provided wherever there are trash receptacles.
- The standard trash receptacle is the Chase Park litter receptacle by Landscape Forms, with side opening and sand pan. Receptacles shall have a silver powder coat finish.
- The standard recycling receptacle is the Chase Park recycling receptacle by Landscape Forms, also with silver powdercoat finish.
- Standard trash and recycling receptacles for Mueller Town Center are Argento (Silver) by Dumor, Inc. Model No. 157-32-25BT and 157-32-25RC, 32 gallons.

Drinking Fountains:

- Public drinking fountains shall be located for pedestrian comfort and convenience at places such as pedestrian gathering spaces and intersections.
- At all drinking fountain locations, at least one bowl shall be accessible per ADA (Americans with Disabilities Act) standards. Consider adding an attached pet fountain if the fountain is located in or near residential areas.
- The standard pedestal drinking fountain is Model 440-SS by Most Dependable Fountains. Fountains shall be stainless steel with standard chrome powder coat and installed per City of Austin standards.

Bike Racks:

- The quantity of bike parking spaces on each site shall be the same as required by City of Austin Code. Consider providing additional bike parking as appropriate for the types and scale of commercial uses.
- Bike racks shall be easily visible from public rights-of-way and accessible from bike paths. 1 space per site shall be large enough to accommodate trikes.
- Bike racks shall be located in public parking garages and in close proximity to pedestrian points of entry to buildings.
- Bike racks shall be as convenient to building entrances as vehicle parking is to building entrances.
- Bike parking areas shall be clear of obstacles and shall not interfere with pedestrian traffic.

- The standard bike rack is the Bola by Landscape Forms. Racks shall be stainless steel.

Tree Grates:

- The standard tree grate is the Starburst Series 1, cast iron tree grate with no special finish. Grates shall be 72” square minimum. This grate shall be used within public rights-of-way, although alternate grates may be proposed for use within a site.
- All grates shall have a design that allows the opening to expand to accommodate tree growth.
- All grates shall be accessible per ADA standards.
- Tree grates are not required for trees planted within pavement. Plant beds, rock mulch or decomposed granite, or unit pavers may be used as alternatives (in rights-of-way or on site).



Tree Grate

Bollards:

- Bollards that provide light shall be compatible with the site-selected or required light pole family.

Plant Bed Alternatives:

- The use of planters, pots, and trellises is encouraged especially where landscape areas are limited.
- Green walls may also be incorporated into structures for additional shade and cooling benefits.



Trellis



Pots

9. WALKWAYS AND PAVING

Design of paved areas can be used to enhance a site in many ways, such as defining outdoor spaces and integrating architecture with its surroundings. In areas of public view, decorative paving materials are encouraged. However, site designs shall incorporate a limited palette of complementary materials to avoid visual clutter.

- A range of paving materials may be considered as options, including but not limited to stained or colored concrete, stone, and many varieties of unit pavers.
- Materials that contribute to sustainable design are also encouraged, such as pervious or highly reflective materials.
- When combining paving patterns and colors, selected materials shall complement each other and the architectural materials. It is recommended that a palette of no more than three (3) colors or materials be used.



Paving

Decomposed Granite Trails

Stabilized decomposed granite is the trail material for the Mueller hike and bike trail system. The hike and bike trail is shown in the street section for the Greenway Street in Neighborhood (see Appendix D for Mueller Street Cross Sections). The trail may also occur at other locations as required to complete the looped Mueller trail system. Review trail locations and layout with the NCC.

Trail specifications:

- The decomposed granite trail surface shall be compacted and stabilized with Polypavement liquid soil stabilizer. Stabilizer shall be used in accordance with the manufacturer's recommendations for the specific trail use and situation.
- The decomposed granite surface shall be installed over compacted base material.
- Where a decomposed granite trail transitions to concrete, the concrete shall be angled downward below the decomposed granite, making the transition as shown in City of Austin standard detail 1301S-1.
- Steel edging may be used between decomposed granite trail and plant beds, to facilitate maintenance. If edging is used, the top of the edging shall be flush with the top of the trail surface.
- Do not use decomposed granite in trail areas with steeper slopes or where washouts may be anticipated. Concrete paving with washed aggregate finish may be used in such areas. The aggregate shall be rounded river rock, with a maximum size of 3/8", and color to match decomposed granite.
- The size of the granite pieces used shall be sized to compact together and create a stable, firm, and slip-resistant surface meeting accessibility requirements. The trail shall also meet ADA requirements for running and cross slopes, and vertical and horizontal clearances.
- Curves incorporated into the trail alignment shall be smooth and tangent. Avoid sharp turns; curve radii shall be thirty-six feet (36') at minimum, and greater than fifty feet (50') where possible.



Decomposed Granite Trail

10. FENCING AND WALLS

Fencing and walls may serve many purposes, such as enclosing outdoor rooms, screening unsightly appearances, and accommodating changes in grade. All fencing and walls, whether highly visible and ornamental or merely blocking views shall maintain the high quality standards set at Mueller.



Screen Wall

- All fencing and walls to be constructed on non-residential and multi-family sites shall be the responsibility of the site developer, unless it is explicitly stated otherwise.
- The color, scale and detailing of fences and walls shall be coordinated with the design of adjacent buildings. All fences and walls visible to the public must be approved by the NCC.
- When installed, fences and walls shall be “finished” on the side facing the public. Having both sides finished is preferred.
- All fencing and walls shall be stair-stepped down in areas exceeding a 5% slope. For areas with a 0-5% slope, fencing and walls shall run parallel to the slope. For gates located on slopes, the top of the gate shall remain level. The grade of slopes along walls shall be smooth and taper gradually to match existing grades.



Decorative Wall with Seating and Water Feature

- Walls shall be made of or faced (veneered) with masonry (stone, stucco, brick, or approved equal). Masonry that matches or complements materials of adjacent buildings is encouraged. Plain or painted concrete masonry units (CMU) are prohibited.
- Fences may be made of wood, tubular steel, aluminum, or other high quality materials. Wood shall be ipe, teak, or similar high-density hardwood. Chain link and vinyl are prohibited.
- The height of any fence, wall, or combination shall be a maximum of six feet (6') unless a greater height is specifically approved by the NCC. Maximum height shall be measured from the finished grade elevation where the wall or fence is tallest.
- Fencing and walls with horizontal and vertical details giving scale and dimension to the structure are encouraged. If a fence or wall face is longer than 100 feet (100') and greater than thirty-six inches (36") in height, a variation in three-dimensional character is required, such as incorporation of columns, view openings, or others.
- Fencing and walls shall be a minimum of eighteen inches (18") from the back of public sidewalks.
- Retaining walls that are partially below the finished grade and walls used as planters shall be moisture-proofed to avoid unsightly water staining.



Stone Wall



Decorative Fencing

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APPENDIX C

MUELLER PLANT LIST

MUELLER

AUSTIN TEXAS

Original Edition
NOVEMBER 2004

REVISED SEPTEMBER 2018

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MUELLER PLANT LIST

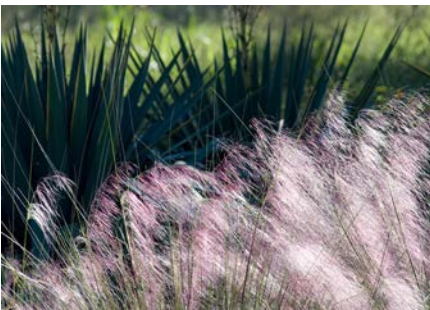


1. The Mueller Plant list emphasizes non-invasive, drought tolerant and native species. Plants on this list are native to Texas, Central Texas, the Blackland Prairie, and/or are adaptive to the area.

NOTE: Mueller plant list includes a native plant section and a section of well adapted plants.



2. All plant material shall comply with the most current version of ANSI Z60.1.
3. A minimum of 50% of plant bed areas on each site shall be planted with plants from the Mueller Native Plant Material List.
4. A minimum of 90% of all plant material proposed for use in the community must be selected from the Mueller plant list.
5. No invasive plants or plant from the Do Not Plant List in Appendix C are allowed.
6. Turf grass species for a site shall be chosen from the species listed in Appendix C in the Mueller Design Book and in the Grow Green guide from the City of Austin. Turf grass within the public right-of-way in parkway strips shall be Tif 419 Bermuda sod.



7. Suggested minimum plant sizes:
Shade Trees- 3" caliper
Large shrubs- 5 gallon
Small shrubs- 1 gallon
Ornamental grasses- 1 gallon
Perennials & Groundcovers- four inch (4") pot.
Vines- 1 gallon



8. A large shrub is defined as a specimen (when at full maturity) that is at least four foot in height by four foot in spread (4' ht. x 4' spd.).

Mueller Native Plant Material List

Austin, TX
Rev. June 2017

| Botanical Name | Common Name | Ht. x Spd. | Min. Size | Drought Tolerant | Comments |
|---------------------------------|----------------------|------------|-----------|------------------|----------------------------------|
| SHADE TREES | | | | | |
| <u>Deciduous Trees</u> | | | | | |
| Acer grandidentatum | Bigtooth Maple | 30' x 20' | 2" cal. | yes | |
| Carya illinoensis | Pecan | 50' x 50' | 3" cal. | yes | |
| Catalpa bignonioides | Catalpa | 35' x 35' | 8' ht. | yes | |
| Fraxinus texensis | Texas Ash | 50' x 40' | 2" cal. | yes | |
| Juglans major | Arizona Walnut | 40' x 50' | 8' ht. | yes | |
| Juglans microcarpa | Little Walnut | 20' x 30' | 8' ht. | yes | |
| Juglans nigra | Black Walnut | 70' x 80' | 8' ht. | yes | |
| Populus deltoides | Cottonwood | 60' x 40' | 2" cal. | yes | |
| Quercus glaucooides / laceyi | Lacey Oak | 20' x 40' | 2" cal. | yes | |
| Quercus macrocarpa | Bur Oak | 75' x 50' | 3" cal. | yes | |
| Quercus marilandica | Blackjack Oak | 50' x 60' | 2" cal. | yes | |
| Quercus muhlenbergii | Chinquapin Oak | 60' x 30' | 3" cal. | yes | |
| Quercus polymorpha | Mexican White Oak | 40' x 30' | 3" cal. | yes | |
| Quercus shumardii | Shumard Oak | 60' x 40' | 3" cal. | yes | |
| Quercus stellata | Post Oak | 50' x 75' | 2" cal. | yes | |
| Quercus texana | Texas Red Oak | 25' x 15' | 3" cal. | yes | |
| Sapindus drummondii | Soapberry | 30' x 25' | 8' ht. | yes | |
| Taxodium distichum | Bald Cypress | 75' x 50' | 2" cal. | yes | |
| Ulmus americana | American Elm | 60' x 40' | 2" cal. | no | Dutch Elm Disease resistant var. |
| Ulmus crassifolia | Cedar Elm | 50' x 35' | 3" cal. | yes | |
| <u>Evergreen Trees</u> | | | | | |
| Arbutus texana | Texas Madrone | 25' x 30' | 6' ht. | yes | |
| Ehretia anacua | Anacua | 40' x 30' | 8' ht. | yes | |
| Quercus fusiformis | Escarpment Live Oak | 50' x 50' | 2" cal. | yes | |
| Quercus virginiana | Southern Live Oak | 40' x 40' | 3" cal. | yes | |
| ORNAMENTAL TREES | | | | | |
| Acacia farnesiana | Huisache | 20' x 20' | 8' ht. | yes | |
| Aesculus pavia | Red Buckeye | 10' x 20' | 8' ht. | yes | |
| Bauhinia congesta | Anacacho Orchid Tree | 6' x 12' | 8' ht. | yes | |
| Cercis canadensis var. mexicana | Mexican Redbud | 20' x 15' | 8' ht. | yes | |
| Cercis canadensis var. texensis | Texas Redbud | 20' x 15' | 8' ht. | yes | |
| Chilopsis linearis | Desert Willow | 20' x 15' | 8' ht. | yes | |
| Cornus drummondii | Roughleaf Dogwood | 20' x 15' | 8' ht. | yes | |
| Cotinus obovatus | Smoke Tree | 12' x 8' | 8' ht. | yes | |
| Diospyros texana | Texas Persimmon | 15' x 10' | 8' ht. | yes | |
| Eysenhardtia texana | Kidneywood | 12' x 8' | 3" cal. | yes | |
| Ilex decidua | Possumhaw Holly | 20' x 12' | 8' ht. | yes | |
| Ilex vomitoria | Yaupon Holly | 20' x 12' | 8' ht. | yes | |
| Juniperus virginiana | Eastern Red Cedar | 25' x 15' | 3" cal. | yes | |
| Leucaena retusa | Goldenball Leadtree | 20' x 15' | 8' ht. | yes | |

| Botanical Name | Common Name | Ht. x Spd. | Min. Size | Drought Tolerant | Comments |
|-----------------------------|--------------------------|------------|-----------|------------------|----------|
| Myrica cerifera | Southern Wax Myrtle | 10' x 8' | 6' ht. | yes | |
| Parkinsonia aculeata | Retama | 25' x 20' | 8' ht. | yes | |
| Pistacia texana | Texas Pistache | 20' x 15' | 12' ht. | yes | |
| Prunus caroliniana | Cherry Laurel | 25' x 15' | 6' ht. | yes | |
| Prunus mexicana | Mexican Plum | 20' x 15' | 8' ht. | yes | |
| Prunus serotina var. eximia | Escarpment Black Cherry | 20' x 30' | 8' ht. | yes | |
| Rhamnus caroliniana | Carolina Buckthorn | 20' x 15' | 8' ht. | yes | |
| Rhus copallina / lanceolata | Flameleaf Sumac | 15' x 20' | 8' ht. | yes | |
| Sophora affinis | Eve's Necklace | 20' x 30' | 8' ht. | yes | |
| Sophora secundiflora | Texas Mountain Laurel | 20' x 10' | 6' ht. | yes | |
| Ungnadia speciosa | Mexican Buckeye | 20' x 15' | 8' ht. | yes | |
| Viburnum rufidulum | Rusty Blackhawk Viburnum | 15' x 10' | 3" cal. | yes | |

LARGE SHRUBS

Evergreen Shrubs

| | | | | | |
|-------------------------|------------------|----------|---------|-----|--|
| Berberis trifoliata | Agarita | 4' x 4' | 3' o.c. | yes | |
| Ilex vomitoria 'Nana | Dwarf Yaupon | 2' x 2' | 2' o.c. | yes | |
| Leucophyllum frutescens | Texas Sage | 5' x 4' | 4' o.c. | yes | |
| Myrica pusilla | Dwarf Wax Myrtle | 4' x 4' | 3' o.c. | yes | |
| Rhus virens | Evergreen Sumac | 12' x 8' | 8' o.c. | yes | |
| Rosa carolina | Carolina Rose | 2' x 3' | 3' o.c. | yes | |

Semi-evergreen Shrubs

| | | | | | |
|------------------|-----------------|---------|---------|-----|--|
| Malpighia glabra | Barbados Cherry | 3' x 2' | 2' o.c. | yes | |
|------------------|-----------------|---------|---------|-----|--|

Deciduous Shrubs

| | | | | | |
|-----------------------------|----------------------------|----------|---------|-----|--------------------------------|
| Ageratina havanensis | White Mistflower / Boneset | 5' x 3' | 3' o.c. | yes | |
| Buddleja davidii | Butterfly Bush | 5' x 5' | 4' o.c. | yes | |
| Callicarpa americana | American Beautyberry | 6' x 6' | 5' o.c. | yes | |
| Cassia corymbosa | Flowering Senna | 8' x 6' | 5' o.c. | yes | |
| Cephalanthus occidentalis | Button Bush | 8' x 10' | 6' o.c. | yes | park wetland and pond use only |
| Eysenhardtia texana | Kidneywood | 10' x 6' | 6' o.c. | yes | |
| Hamamelis virginiana | Witch Hazel | 10' x 8' | 6' o.c. | yes | |
| Lantana horrida | Texas Lantana | 4' x 4' | 3' o.c. | yes | |
| Mimosa borealis | Fragrant Mimosa | 4' x 4' | 3' o.c. | yes | |
| Rhus aromatica | Aromatic Sumac | 6' x 4' | 5' o.c. | yes | |
| Rhus copallina / lanceolata | Flameleaf Sumac | 8' x 6' | 5' o.c. | yes | |
| Senna lindheimeriana | Lindheimer Senna | 4' x 4' | 3' o.c. | yes | |
| Tecoma stans var. angustata | Yellow Bells | 4' x 4' | 4' o.c. | yes | |

SMALL SHRUBS

Evergreen Shrubs

| | | | | | |
|-----------------------|---------------------|---------|----------|-----|--|
| Artemesia ludoviciana | Artemesia | 2' x 2' | 2' o.c. | yes | |
| Hesperaloe parviflora | Red Yucca | 4' x 4' | 3' o.c. | yes | |
| Stachys coccinea | Texas Betony | 1' x 3' | 36" o.c. | yes | |
| Tagetes lemmonii | Copper Canyon Daisy | 3' x 4' | 36" o.c. | yes | |

| Botanical Name | Common Name | Ht. x Spd. | Min. Size | Drought Tolerant | Comments |
|--|----------------------|-------------|-----------|------------------|----------|
| <u>Semi-evergreen Shrubs</u> | | | | | |
| Salvia greggii | Cherry Sage | 3' x 3' | 3' o.c. | yes | |
| Salvia leucantha | Mexican Bush Sage | 4' x 4' | 48" o.c. | yes | |
| Wedelia texana / hispida | Zexmenia | 2' x 3' | 24" o.c. | yes | |
| <u>Deciduous Shrubs</u> | | | | | |
| Anisacanthus quadrifidus var. wrightii | Flame Acanthus | 3' x 3' | 3' o.c. | yes | |
| Capsicum annuum | Chile Pequin | 3' x 3' | 2' o.c. | yes | |
| Dalea frutescens | Black Dalea | 2' x 4' | 3' o.c. | yes | |
| Malvaviscus arboreus var. drummondii | Turks Cap | 3' x 4' | 3' o.c. | yes | |
| Pavonia lasiopetala | Rock Rose Pavonia | 2' x 3' | 2' o.c. | yes | |
| Symphoricarpos orbiculatus | Coralberry | 3' x 4' | 3' o.c. | yes | |
| GROUND COVERS AND PERENNIALS | | | | | |
| <u>Evergreen Ground Covers</u> | | | | | |
| Calyptocarpus vialis | Horseherb | 8" ht. | 12" o.c. | yes | |
| Chrysactinia mexicana | Damianita | 24" x 18" | 18" o.c. | yes | |
| Phyla incisa | Frogfruit | 4" x 1' | 12" o.c. | yes | |
| Rivina humilis | Pigeonberry | 1' x 2' | 24" o.c. | yes | |
| Ruellia brittoniana 'Katie' | Katie Dwarf Ruellia | 12" x 12" | 12" o.c. | yes | |
| <u>Deciduous Ground Covers</u> | | | | | |
| Lantana montevidensis | Trailing Lantana | 1' x 4' | 36" o.c. | yes | |
| Stemodia tomentosa | Wooly Stemodia | 6" x 3' | 24" o.c. | yes | |
| <u>Perennials</u> | | | | | |
| Achillea millefolium | Yarrow | 18" x 3' | 2' o.c. | yes | |
| Aquilegia canadensis | Red Columbine | 3' x 2' | 12" o.c. | yes | |
| Aquilegia chrysantha 'Texas Gold' | Yellow Columbine | 3' x 2' | 12" o.c. | yes | |
| Aster oblongifolius | Fall Aster | 3' x 2.5' | 2' o.c. | yes | |
| Callirhoe involucrata | Winecup | 1' x 3' | 3' o.c. | yes | |
| Calylophus berlandieri | Calylophus | 1' x 1' | 12" o.c. | yes | |
| Conoclinium greggii | Gregg's Mistflower | 1.5' x 1.5' | 18" o.c. | yes | |
| Coreopsis lanceolata | Coreopsis | 2' x 2' | 2' o.c. | yes | |
| Dalea greggii | Gregg Dalea | 1' x 3' | 36" o.c. | no | |
| Delphinium carolinianum | Blue Larkspur | 2' x 1' | 12" o.c. | yes | |
| Echinacea purpurea | Purple Coneflower | 2' x 1.5' | 24" o.c. | yes | |
| Eustoma exaltatum spp. Russellianum | Texas Bluebells | 12" x 12" | 12" o.c. | yes | |
| Gaura lindheimeri* | Gaura | 3' x 2' | 18" o.c. | yes | |
| Helianthus maximiliana | Maximilian Sunflower | 6' ht. | 36" o.c. | yes | |
| Hibiscus coccineus / moscheutos | Perennial Hibiscus | 4' x 4' | 4' o.c. | yes | |
| Hymenoxys / Tetraneuris scaposa | Hymenoxys | 12" x 12" | 12" o.c. | yes | |
| Liatris mucronata | Gayfeather | 2' x 2' | 24" o.c. | yes | |
| Linum pratense | Meadow Flax | 18" x 12" | 18" o.c. | yes | |
| Lobelia cardinalis | Cardinal Flower | 3' x 2' | 24" o.c. | yes | |
| Melampodium leucanthum | Blackfoot Daisy | 1' x 2' | 24" o.c. | yes | |
| Monarda fistulosa | Bee Balm | 3' x 4' | 36" o.c. | yes | |
| Oenothera missouriensis | Missouri Primrose | 1.5' x 3' | 24" o.c. | yes | |

| Botanical Name | Common Name | Ht. x Spd. | Min. Size | Drought Tolerant | Comments |
|--------------------------|------------------------|-------------------|------------------|-------------------------|-----------------|
| Oenothera speciosa | Evening Primrose | 1.5' x 3' | 24" o.c. | yes | |
| Penstemon baccharifolius | Rock Penstemon | 1.5' x 1' | 12" o.c. | yes | |
| Penstemon tenuis | Gulf Coast Penstemon | 1.5' x 1' | 12" o.c. | yes | |
| Penstemon triflorus | Scarlet Penstemon | 2' x 1.5' | 18" o.c. | yes | |
| Physostegia virginiana | Fall Obedient Plant | 3' x 2' | 36" o.c. | yes | |
| Rudbeckia hirta | Black-eyed Susan | 2' x 1.5' | 24" o.c. | yes | |
| Salvia coccinea | Tropical Sage | 3' x 2' | 24" o.c. | yes | |
| Salvia farinacea | Mealy Blue Sage | 2' x 1.5' | 18" o.c. | yes | |
| Salvia penstemonoides | Big Red Sage | 4' x 2' | 24" o.c. | yes | |
| Salvia roemeriana | Cedar Sage | 2' x 3' | 36" o.c. | yes | |
| Thelypteris kunthii | River Fern | 3' x 3' | 36" o.c. | no | |
| Verbena bipinnatifida | Prairie Verbena | 1' x 2' | 18" o.c. | yes | |
| Viguiera stenoloba | Skeletonleaf Goldeneye | 2' x 3' | 24" o.c. | yes | |

VINES

Evergreen Vines

| | | | | | |
|------------------------|--------------------|-----|----|-----|--|
| Bignonia capreolata | Crossvine | 50' | NA | yes | |
| Gelsemium sempervirens | Carolina Jessamine | 20' | NA | yes | |
| Lonicera sempervirens | Coral Honeysuckle | 12' | NA | yes | |

Deciduous Vines

| | | | | | |
|---------------------------|------------------|-----|----|-----|--|
| Clematis spp. | Clematis | NA | NA | yes | |
| Parthenocissus quinifolia | Virginia Creeper | 20' | NA | yes | |
| Passiflora incarnata | Passion Vine | 12' | NA | yes | |
| Vitis mustangensis | Mustang Grape | 10' | NA | yes | |
| Wisteria macrostachya | Texas Wisteria | 30' | NA | yes | |

GRASSES

Ornamental Grasses

| | | | | | |
|--------------------------|---------------------------|-----------|----------|-----|--------------------------------|
| Andropogon gerardii | Big Bluestem | 5' x 3' | 36" o.c. | yes | |
| Andropogon glomeratus | Bushy Bluestem | 4' x 2' | 36" o.c. | yes | |
| Bouteloua curtipendula | Side Oats Grama | 3' x 2' | 36" o.c. | yes | park wetland and pond use only |
| Bouteloua gracilis | Blue Grama | 1' x 1' | Seed | yes | |
| Buchloe dactyloides | Buffalograss | 1' x 1' | Seed | yes | |
| Chasmanthium latifolium | Inland Sea Oats | 4' x 8' | 5' o.c. | yes | |
| Muhlenbergia capillaris | Gulf Muhly | 2.5' x 2' | 24" o.c. | yes | |
| Muhlenbergia lindheimeri | Big Muhly | 5' x 3' | 5' o.c. | yes | |
| Muhlenbergia reverchonii | Seep Muhly | 3' x 2' | 24" o.c. | yes | |
| Muhlenbergia rigens | Deer Muhly | 1' x 1' | 12" o.c. | yes | |
| Nolina texana | Basket Grass / Sacahuista | 2' x 2' | 24" o.c. | yes | |
| Panicum virgatum | Switchgrass | 4' x 4' | 48" o.c. | yes | |
| Schizachyrium scoparium | Little Bluestem | 3' x 1.5' | 18" o.c. | yes | |
| Sorghastrum nutans | Indian Grass | 4' x 5' | 48" o.c. | yes | |
| Sporobolus airoides | Alkali Sacaton | 2' x 2' | 24" o.c. | yes | |
| Stipa tenuissima | Mexican Feather Grass | 2' x 1.5' | 24" o.c. | yes | |

| Botanical Name | Common Name | Ht. x Spd. | Min. Size | Drought Tolerant | Comments |
|--------------------------------------|---------------------|------------|--------------|---------------------|----------|
| ACCENTS | | | | | |
| Agave spp. | Agave | 4' x 6' | 5' o.c. | yes | |
| Dasyilirion texana | Texas Sotol | 4' x 4' | 4' o.c. | yes | |
| Opuntia engelmannii var. lindheimeri | Prickly Pear Cactus | 3' x 3' | 3' o.c. | yes | |
| Sabal minor | Dwarf Palmetto | 5' x 5' | 4' o.c. | no | |
| Yucca pallida | Paleleaf Yucca | 1' x 2' | 2' o.c. | yes | |
| Yucca pendula / recurvifolia | Softleaf Yucca | 5' x 3' | 3' o.c. | yes | |
| Yucca rupicola | Twisted Leaf Yucca | 2' x 2' | 2' o.c. | yes | |

Mueller Well Adapted Plant Material List

Some native species are on this list because they are difficult to find in stores or not well suited for soil conditions on this site.

| Botanical Name | Common Name | Ht. x Spd. | Min. Size | Drought Tolerant | Comments |
|-------------------------------------|------------------------|------------|-----------|------------------|--------------------------------|
| SHADE TREES | | | | | |
| <u>Deciduous Trees</u> | | | | | |
| Acer palmatum | Japanese Maple | 15' x 10' | 6' ht. | no | specimen or container use only |
| Fraxinus cuspidata | Fragrant Ash | 10' x 15' | 8' ht. | yes | |
| Koelreuteria paniculata | Golden Rain Tree | 30' x 25' | 2" cal. | yes | ornamental accent use only |
| Lagerstroemia indica | Crape Myrtle | 25' x 15' | 8' ht. | yes | |
| Magnolia soulangiana | Saucer Magnolia | 30' x 25' | 8' ht. | no | ornamental accent use only |
| Platanus mexicana | Mexican Sycamore | 60' x 40' | 3" cal. | yes | |
| Prosopis glandulosa | Honey Mesquite | 25' x 30' | 8' ht. | yes | |
| Quercus sinuata | Durand Oak | 50' x 70' | 2" cal. | yes | |
| Quercus sinuata brevifolia | Shin Oak | 30' x 35' | 2" cal. | yes | |
| Salix babylonica | Weeping Willow | 30' x 25' | 2" cal. | no | park wetland and pond use only |
| Salix nigra | Black Willow | 50' x 40' | 2" cal. | no | park wetland and pond use only |
| Taxodium mucronatum | Montezuma Cypress | 75' x 50' | 2" cal. | yes | |
| <u>Evergreen Trees</u> | | | | | |
| Cedrus deodara | Deodar Cedar | 30' x 15' | 12' ht. | yes | |
| Cupressus arizonica | Arizona Cypress | 30' x 20' | 8' ht. | yes | |
| Eriobotrya japonica | Loquat | 15' x 10' | 6' ht. | no | |
| Juniperus chinensis 'Blue Point' | Blue Point Juniper | 15' x 5' | 4' ht. | yes | |
| Pinus eldarica | Afghan Pine | 50' x 25' | 8' ht. | yes | |
| Pinus pinea | Italian Stone Pine | 80' x 40' | 8' ht. | yes | |
| Pinus thunbergii | Japanese Black Pine | 50' x 25' | 8' ht. | yes | |
| ORNAMENTAL TREES | | | | | |
| Prunus persica | Flowering Peach | 15' x 10' | 8' ht. | yes | ornamental accent use only |
| LARGE SHRUBS | | | | | |
| <u>Evergreen Shrubs</u> | | | | | |
| Abelia grandiflora | Glossy Abelia | 6' x 6' | 4' o.c. | yes | |
| Abelia grandiflora, dwarf varieties | Dwarf Abelia | 3' x 3' | 3' o.c. | yes | 'Edward Goucher', 'Sherwoodii' |
| Artemesia x 'Powis Castle' | Powis Castle Artemesia | 2' x 2' | 2' o.c. | yes | |
| Cotoneaster glaucophylla | Grayleaf Cotoneaster | 3' x 5' | 3' o.c. | yes | |
| Cotoneaster spp. | Cotoneaster | 3' x 5' | 3' o.c. | yes | |
| Cycas revoluta | King Sago | 6' x 4' | 5' o.c. | no | specimen or container use only |
| Dietes bicolor | Bicolor Iris | 3' x 3' | 3' o.c. | yes | |
| Fatsia japonica | Fatsia | 4' x 4' | 3' o.c. | no | specimen or container use only |
| Feijoa sellowiana | Pineapple Guava | 6' x 6' | 5' o.c. | yes | |
| Jasminum floridum | Florida Jasmine | 3' x 4' | 4' o.c. | yes | |
| Jasminum mesnyi | Primrose Jasmine | 8' x 8' | 5' o.c. | yes | |
| Juniperus chinensis 'Parsonii' | Parsons Juniper | 2' x 3' | 3' o.c. | yes | |
| Juniperus chinensis 'Sea Green' | Sea Green Juniper | 5' x 6' | 4' o.c. | yes | |
| Juniperus conferta | Shore Juniper | 1.5' x 8' | 6' o.c. | yes | |
| Juniperus horizontalis cultivars | Andorra Juniper | 2' x 4' | 3' o.c. | yes | |
| Loropetalum spp. | Loropetalum | 8' x 5' | 4' o.c. | yes | |

| Botanical Name | Common Name | Ht. x Spd. | Min. Size | Drought Tolerant | Comments |
|-------------------------------------|---------------------|------------|-----------|------------------|----------|
| Mahonia bealei | Leatherleaf Mahonia | 4' x 3' | 3' o.c. | no | |
| Rosa spp. | Rose | varies | NA | yes | |
| Rosmarinus officinalis | Upright Rosemary | 4' x 5' | 3' o.c. | yes | |
| Rosmarinus officinalis 'prostratus' | Prostrate Rosemary | 2' x 5' | 3' o.c. | yes | |
| Viburnum suspensum | Sandankwa Viburnum | 6' x 6' | 4' o.c. | no | |

Semi-evergreen Shrubs

| | | | | | |
|--------------------|--------------------|---------|---------|-----|--|
| Dalea bicolor | Dalea | 3' x 3' | 3' o.c. | yes | |
| Salvia melissodora | Grape-Scented Sage | 3' x 3' | 3' o.c. | yes | |
| Salvia x superba | Blue Queen Sage | 3' x 3' | 3' o.c. | yes | |

Deciduous Shrubs

| | | | | | |
|--------------------------------------|----------------------------|-----------|---------|-----|--------------------------|
| Berberis thunbergii | Japanese Barberry | 4' x 4' | 3' o.c. | yes | |
| Berberis thunbergii 'Atropurpurea' | Red Leaf Japanese Barberry | 5' x 5' | 4' o.c. | yes | |
| Berberis thunbergii, dwarf varieties | Japanese Barberry, dwarf | 2' x 2' | 2' o.c. | yes | 'Crimson Pygmy', 'Aurea' |
| Buddleja marrubiifolia | Wooly Butterfly Bush | 6' x 6' | 5' o.c. | yes | |
| Cassia lindheimeriana | Lindheimer's Cassia | 2' x 3' | 2' o.c. | yes | |
| Chaenomeles speciosa | Flowering Quince | 6' x 6' | 5' o.c. | no | |
| Eupatorium coelestinum | Blue Mistflower | 3' x 3' | 3' o.c. | yes | |
| Hibiscus syriacus | Althea | 10' x 6' | 5' o.c. | no | |
| Philadelphus coronarius | Mock Orange | 10' x 8' | 6' o.c. | yes | |
| Punica granatum | Pomegranate | 10' x 6' | 4' o.c. | yes | |
| Salvia reglia | Mountain Sage | 5' x 4' | 3' o.c. | yes | |
| Teucrium fruticans | Bush Germander | 5' x 5' | 5' o.c. | yes | |
| Viburnum dentatum | Arrowwood | 15' x 10' | 8' o.c. | yes | |

GROUND COVERS AND PERENNIALS

Evergreen Ground Covers

| | | | | | |
|----------------------------|-----------------------|-----------|----------|-----|--------------------------------|
| Aspidistra elatior | Cast Iron Plant | 36" x 24" | 24" o.c. | no | |
| Carex perdentata | Meadow Sedge | 18" x 18" | 12" o.c. | yes | |
| Carex texensis | Texas Sedge | 8" x 18" | 12" o.c. | yes | |
| Carex tumulicola | Berkeley Sedge | 12" x 12" | 12" o.c. | yes | |
| Hypericum calycinum | St. John's Wort | 24" x 24" | 24" o.c. | yes | |
| Liriope gigantea | Giant Liriope | 24" ht. | 24" o.c. | no | |
| Liriope muscari | Liriope and varieties | 18" ht. | 18" o.c. | no | |
| Ophiopogon japonicus | Monkey Grass | 12" ht. | 12" o.c. | no | |
| Oreganum vulgare | Oregano | 36" x 36" | 36" o.c. | yes | |
| Santolina chamaecyparissus | Santolina | 12" x 24" | 24" o.c. | yes | |
| Sedum nuttallianum | Sedum | 6" ht. | 12" o.c. | yes | |
| Setcreasea pallida | Purple Heart | 12" ht. | 12" o.c. | yes | specimen or container use only |

Deciduous Ground Covers

| | | | | | |
|-----------------------------|-------------------|---------|----------|-----|--|
| Ceratostigma plumbaginoides | Leadwort Plumbago | 12" ht. | 18" o.c. | yes | |
| Dichondra argentea | Silver Ponyfoot | 4" ht. | 24" o.c. | yes | |
| Plumbago auriculata | Blue Plumbago | 3' x 5' | 36" o.c. | yes | |

| Botanical Name | Common Name | Ht. x Spd. | Min. Size | Drought Tolerant | Comments |
|--|------------------------------|------------|-----------|------------------|--------------------------------|
| <u>Perennials</u> | | | | | |
| Agapanthus africanus | Agapanthus | 24" ht. | 2' o.c. | no | specimen or container use only |
| Aquilegia chrysantha x 'Hinkleyana' | Hinkley's Columbine | 3' x 2' | 12" o.c. | yes | |
| Asclepias curassivica | Mexican Butterfly Weed | 3' x 1' | 12" o.c. | yes | specimen or container use only |
| Asclepias tuberosa | Butterfly Weed | 3' x 1' | 12" o.c. | yes | |
| Bulbine frutescens / caulescens | Bulbine | 2' x 2.5' | 2' o.c. | yes | |
| Caesalpinia pulcherrima | Poinciana | 6' x 6' | 5' o.c. | yes | |
| Canna spp. | Canna Lily | 4' x 4' | 4' o.c. | no | |
| Chrysanthemum leucanthemum | Oxeye Daisy | 3' x 3' | 3' o.c. | yes | |
| Cuphea hyssopifolia | Mexican Heather | 2' x 2' | 2' o.c. | yes | |
| Cuphea micropetala | Cigar Plant | 4' x 3' | 3' o.c. | yes | |
| Dietes spp. | Butterfly Iris | 4' x 3' | 36" o.c. | yes | |
| Eupatorium wrightii | White Mistflower | 2' x 2' | 24" o.c. | yes | |
| Hamelia patens | Firebush | 2.5' x 3' | 36" o.c. | no | specimen use only |
| Hemerocallis spp. | Daylilies | 3' ht. | 24" o.c. | yes | |
| Hibiscus cardiophyllus | Heartleaf Hibiscus | 12" x 12" | 12" o.c. | yes | |
| Ipomoea fistulosa / leptophylla | Bush Morning Glory | 7' x 7' | 6' o.c. | yes | |
| Iris albicans | Bearded Iris | 1' x 3' | 36" o.c. | yes | |
| Iris spp. | Iris | 2'-5' ht. | 24" o.c. | yes | |
| Justicia brandegeana | Shrimp Plant | 3' x 4' | 24" o.c. | yes | |
| Justicia spicigera | Mexican Honeysuckle | 2' x 4' | 36" o.c. | yes | |
| Lantana x hybrida | Lantana | 2' x 4' | 36" o.c. | yes | |
| Nepeta x faassenii 'Six Hills Giant' | Catmint | 4' x 3' | 36" o.c. | yes | |
| Perovskia atriplicifolia | Russian Sage | 3' x 3' | 36" o.c. | yes | specimen use only |
| Phlomis fruticosa | Jerusalem Sage | 3' x 3' | 36" o.c. | yes | |
| Phlox paniculata | Garden Phlox | 3' x 2' | 36" o.c. | yes | |
| Poliomintha longiflora | Mexican Oregano | 3' x 3' | 36" o.c. | yes | |
| Salvia guaranitica | Majestic Sage | 4' x 5' | 48" o.c. | yes | |
| Salvia x 'Indigo Spires' | Indigo Spires Salvia | 3' x 5' | 48" o.c. | yes | |
| Scutellaria suffrutescens | Pink Skullcap | 1' x 2' | 24" o.c. | yes | |
| Stachys byzantina | Lamb's Ear | 2' x 4' | 36" o.c. | yes | |
| Tagetes lucida | Mexican Mint Marigold | 2' x 3' | 36" o.c. | yes | |
| Tradescantia x Andersoniana | Spiderwort | 2' x 2' | 24" o.c. | yes | |
| Verbena peruviana | Peruvian Verbena | 1' x 2' | 18" o.c. | yes | specimen use only |
| Verbena tenuisectum | Moss Verbena | 1' x 2' | 18" o.c. | yes | |
| VINES | | | | | |
| <u>Evergreen Vines</u> | | | | | |
| Ficus pumila | Fig Vine | 20' | NA | yes | specimen or container use only |
| Rosa banksiae | Lady Banksia Rose | 20' ht. | NA | yes | |
| Trachelospermum jasminoides | Confederate Jasmine | 10'-15' | NA | yes | |
| <u>Deciduous Vines</u> | | | | | |
| Antigonon leptopus | Coral Vine / Rose of Montana | NA | NA | yes | specimen or container use only |
| Bougainvillea spp. | Bougainvillea | NA | NA | yes | |
| Campsis radicans | Trumpet Vine | NA | NA | yes | |
| Ipomoea quamoclit | Cypress Vine | | NA | yes | |
| Parthenocissus tricuspidata 'Veitchii' | Boston Ivy | | NA | yes | |

| Botanical Name | Common Name | Ht. x Spd. | Min. Size | Drought Tolerant | Comments |
|------------------------------|--------------------------|-------------|-----------|------------------|-------------------|
| GRASSES | | | | | |
| <u>Ornamental Grasses</u> | | | | | |
| Cortaderia selloana ‘Pumila’ | Dwarf Pampas Grass | 6’ x 6’ | 48" o.c. | yes | |
| Elymus canadensis | Wild Rye | 4’ x 4’ | 48" o.c. | yes | |
| Muhlenbergia dumosa | Bamboo Muhly | 5’ x 4’ | 48" o.c. | yes | |
| Pennisetum alopecuroides | Fountain Grass | 3’ x 3’ | 36" o.c. | yes | |
| <u>Turf Grasses</u> | | | | | |
| Cynodon spp. | Bermuda hybrid varieties | Sod | | yes | |
| Stenotaphrum secundatum | St. Augustine | Sod | | no | shaded areas only |
| Zoysia japonica | Zoysia | Seed or Sod | | yes | |

Mueller Edible Plant Material List

| Botanical Name | Common Name | Ht. x Spd. | Min. Size | Drought Tolerant | Comments |
|-------------------------|---|------------|-----------|------------------|---|
| Agarita | no named varieties | 4' x 4' | | yes | |
| Apple | Anna, Dorsette Golden, Ein Shemer, Stark Gala, Mollies Delicious | 30' ht. | | no | |
| Black Walnut | Thomas | 50' ht. | | yes | Arizona Walnut or Little Walnut are easy care native alternatives |
| Blackberry | Brazos, Brison, Navaho, Rosborough, Womack, Cheyenne | 4' x 3' | | no | |
| Escarpment Black Cherry | no named varieties | 20' x 30' | | yes | |
| Fig | Alma, Celeste, Texas Everbearing | 15' ht. | | no | |
| Grape | Champanel, Black Spanish, Siebel 9110, Fredonia, Mars, Reliance, Suffolk Red | 8' x 8' | | no | Mustang Grape is easy care native alternative |
| Jujube | Lang, Li | 30' ht. | | no | |
| Kumquat | Meiwa | 15' ht. | | no | |
| Loquat | Early Red, Oliver, Advance, Champagne | 20' ht. | | no | |
| Mexican Plum | no named varieties | 20' x 15' | | yes | |
| Mulberry | Paradise, Shangri La, Texas Mulberry, White Mulberry, Red Mulberry | 45' ht. | | yes | Paper Mulberry is non-native and invasive - do not plant |
| Paw Paw | Mitchell, Overleese, Prolific, Taytoo | 20' ht. | | no | |
| Peach | Sentinel, Harvester, Redglobe, Redskin, Dixiland, Springgold, Bicentennial, June Gold | 10' ht. | | no | |
| Pear | Moonglow, Magness, Seckel, Orient, Keiffer, Garber, Leconte, Warran | 20' ht. | | no | |
| Pecan | Cheyenne, Choctaw, Sioux, Caddo, Desirable, Kiowa, Podsednik, Shawnee, Western, Wichita | 50' x 50' | | yes | |
| Persimmon | Eureka, Fuyu, Hachiya, Tamopan, Tane-nashi | 25' ht. | | yes | |
| Plum | Allred, Bruce, Methley, Morris, Ozark Premier, Santa Rosa | 15' ht. | | no | |
| Pomegranate | Wonderful | 15 'x 10' | | yes | |
| Prickly Pear Cactus | spineless varieties are easier to handle | 3' x 3' | | yes | |
| Strawberry | Sequoia, Tioga, Cardinal | 12" x 12" | | no | best grown as annual in Texas heat |

Mueller Do Not Plant List

*The following list is taken from the Native and Adapted Landscape Plants Grow Green invasive plant list.
See Grow Green guide for most current list.*

| | |
|------------------------------|-----------------------------|
| Running Bamboo | Cat's Claw Vine |
| Chinaberry | Chinese Tallow |
| Chinese Parasol Tree | Japanese Honeysuckle |
| Chinese Pistache | Wax Leaf Ligustrum |
| Giant Cane | Mimosa (non-native) |
| Kudzu | White Mulberry |
| Japanese Ligustrum | Chinese Photinia |
| Paper Mulberry | Red Tip Photinia |
| Nandina (berrying varieties) | Pyracantha |
| Large Leaf Privet | Salt Cedar Tamarisk |
| Small Leaf Privet | Vitex (agnus-castus) |
| Russian Olive | English Ivy |
| Tree of Heaven | Vinca (perennial varieties) |
| Elephant Ear | Golden Bamboo |
| Japanese Holly Fern | Johnsongrass |
| Wisteria (non-native) | |

The following list of plants do not meet the design intent for the Texas native landscape character or are inappropriate for on site conditions.

Trees:

Arizona Ash
Bradford Pear
Chinese Elm (Drake and Lacebark)
Green Ash
Italian Cypress
River Birch
Silver Maple
Sugar Maple
Sweetgum
American Sycamore (*Platanus occidentalis*)

Shrubs:

Azaleas
Boxwood
Burford Holly
Camellias
Chinese Holly
Euonymus
Indian Hawthorn
Photinia
Pittosporum
Rhododendron
Topiaries

Ground Covers:

Asian Jasmine



APPENDIX D

MUELLER STREET CROSS SECTIONS

MUELLER

AUSTIN TEXAS

Original Edition
NOVEMBER 2004

REVISED JULY 2018

Disclaimer:

These Mueller Street Cross Sections are envisioned as a dynamic document that will continue to evolve in response to changing conditions and circumstances. As such, it is anticipated that over the life of the community, the cross sections herein will be refined, waived or amended to incorporate new conditions, special opportunities and/or circumstances.

Neither the Master Developer nor the City has made or makes any representations or warranties of any kind or character, express or implied, with respect to this manual.

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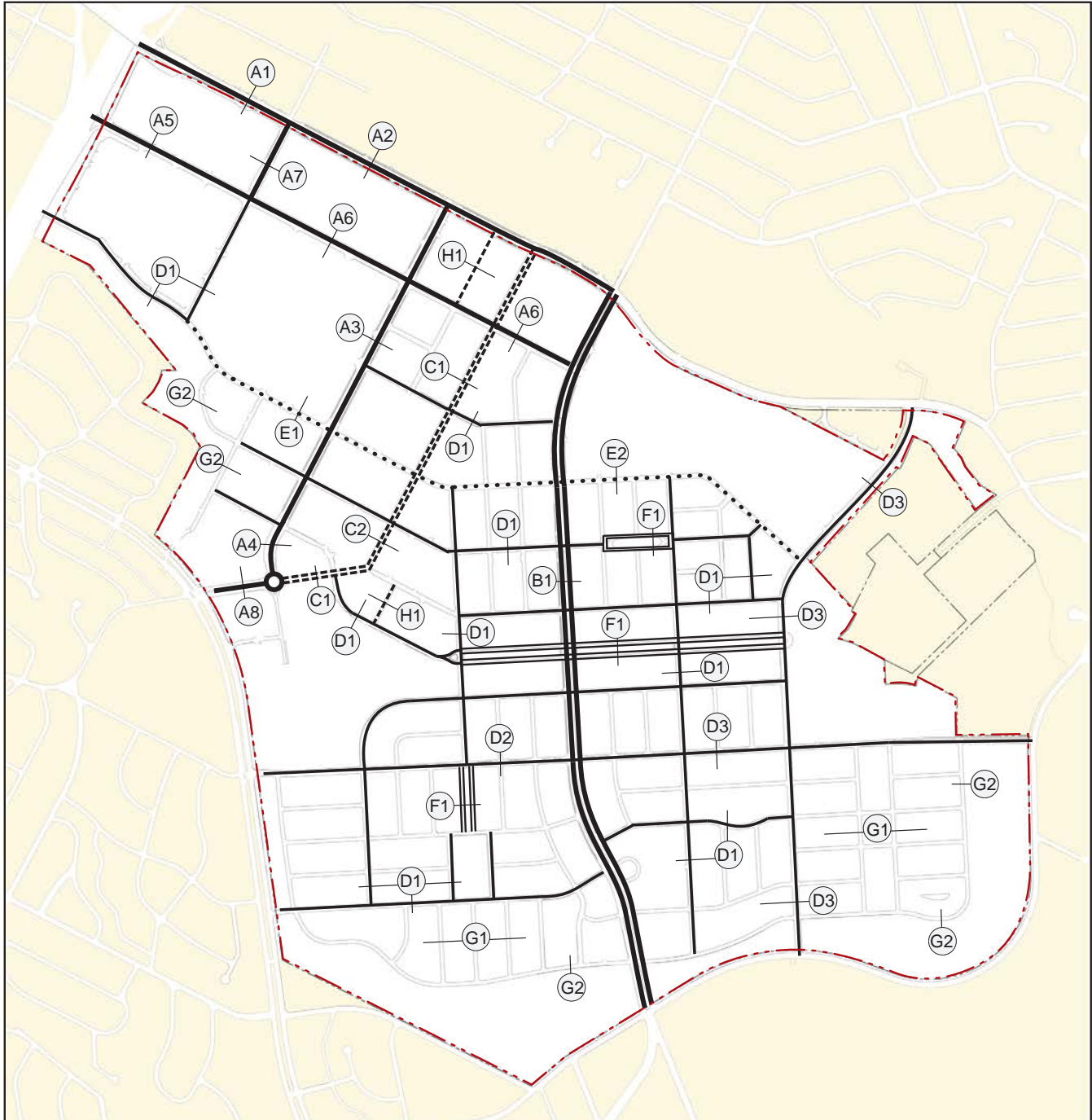
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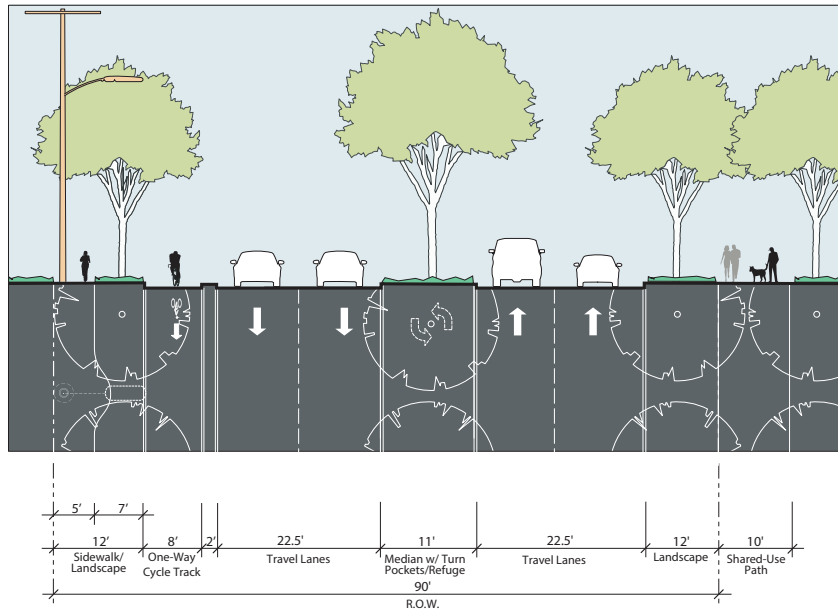


Street Types Map

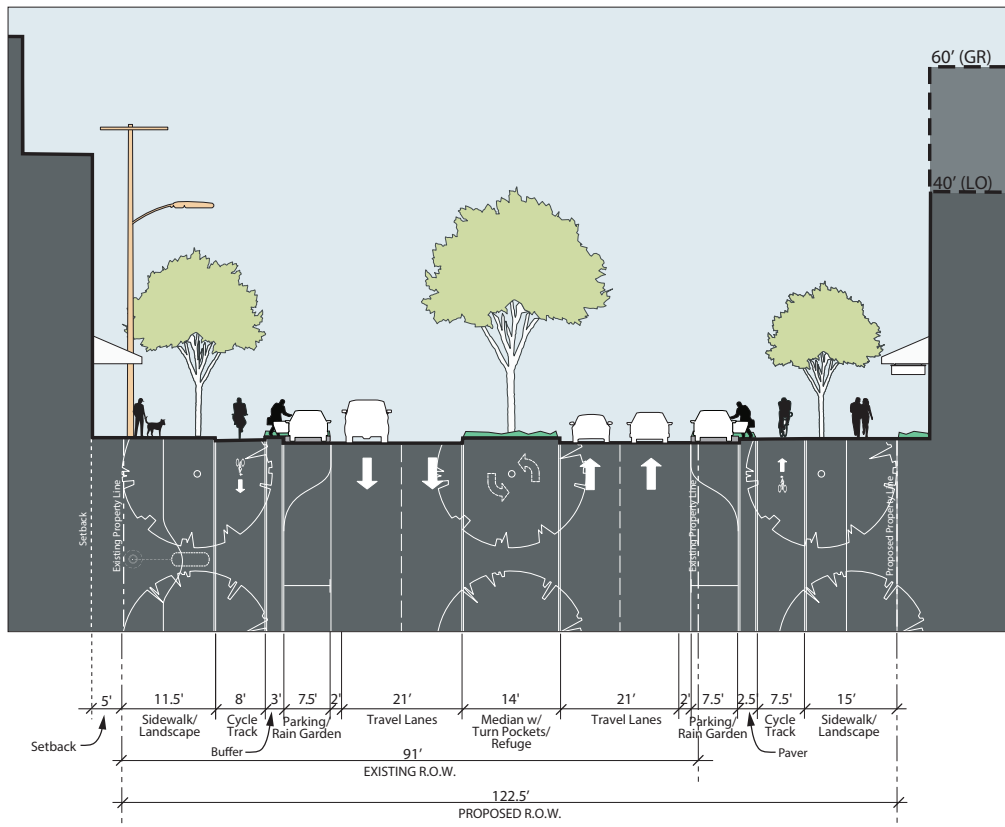


Legend

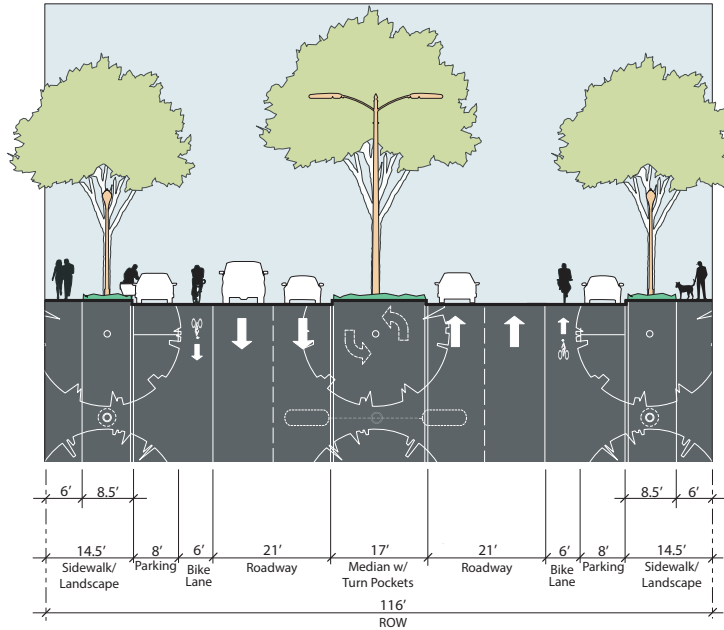
| | | |
|---|----------|--|
|  | A | BOULEVARDS (FOUR LANES WITH MEDIAN) A1: 51ST STREET LOOKING WEST - IH-35 TO LANCASTER DR. A2: 51ST STREET LOOKING WEST - LANCASTER DR. TO BERKMAN DR. A3: MUELLER BOULEVARD - 51ST ST. TO PHILOMENA ST. A4: MUELLER BOULEVARD LOOKING NORTH - PHILOMENA ST. TO ALDRICH ST. A5: BARBARA JORDAN BOULEVARD - IH-35 TO LANCASTER DR. A6: BARBARA JORDAN BOULEVARD LOOKING EAST - LANCASTER DR. TO BERKMAN DR. A7: LANCASTER DRIVE LOOKING NORTH - BARBARA JORDAN BLVD. TO 51ST ST. A8: ALDRICH STREET LOOKING WEST (ENTRY BOULEVARD) - AIRPORT BLVD. TO MUELLER BLVD. |
|  | B | TRANSIT BOULEVARD B1: BERKMAN DRIVE |
|  | C | TOWN CENTER MAIN STREET C1: ALDRICH STREET - 51ST ST. TO PHILOMENA ST. C2: ALDRICH STREET LOOKING NORTH - PHILOMENA ST. TO MCBEE ST. |
|  | D | NEIGHBORHOOD CONNECTOR STREETS D1: TYPICAL NEIGHBORHOOD CONNECTOR STREET D2: NEIGHBORHOOD CONNECTOR STREET WITH BIKE LANES (ZACH SCOTT STREET WEST) D3: NEIGHBORHOOD CONNECTOR STREET WITH TWO-WAY CYCLE TRACK (ZACH SCOTT STREET EAST, TILLEY STREET) |
|  | E | GREENWAY STREET E1: PHILOMENA STREET LOOKING WEST - LANCASTER DR. TO MUELLER BLVD. E2: PHILOMENA STREET LOOKING WEST - MUELLER BLVD. TO TILLEY ST. |
|  | F | PARK BOULEVARDS F1: MATTIE STREET, SIMOND AVENUE, ROBERT BROWNING STREET |
|  | G | NEIGHBORHOOD LOCAL STREETS G1: NEIGHBORHOOD LOCAL QUEUING STREET - INTERIOR G2: NEIGHBORHOOD LOCAL STREET - ADJACENT TO GREENWAY |
|  | H | SERVICE STREETS H1: SERVICE STREET |
| | J | NEIGHBORHOOD ALLEYS (NOT SHOWN AT LEFT) J1: NEIGHBORHOOD ALLEY |



A1 BOULEVARD
51ST STREET LOOKING WEST
(IH-35 TO LANCASTER DR.)

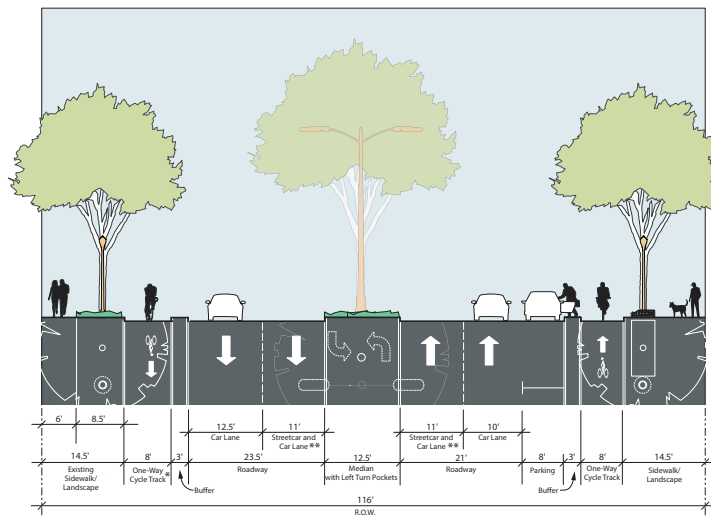


A2 BOULEVARD
51ST STREET LOOKING WEST
(LANCASTER DR. TO BERKMAN DR.)



A3

BOULEVARD
MUELLER BOULEVARD LOOKING NORTH
 (51ST ST. TO PHILOMENA ST.)

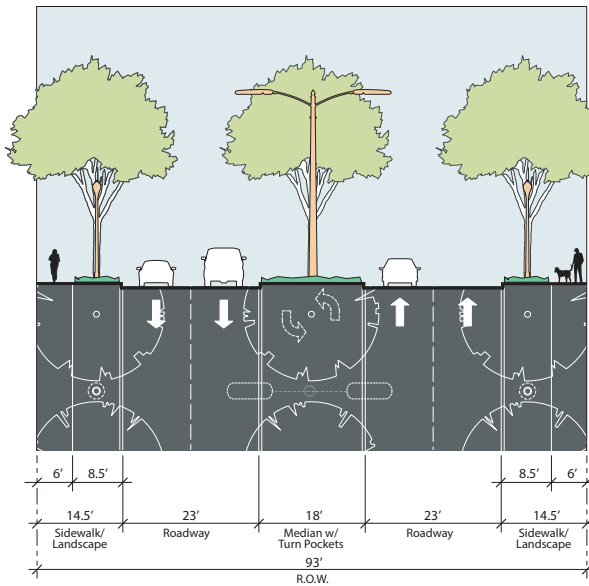


A4

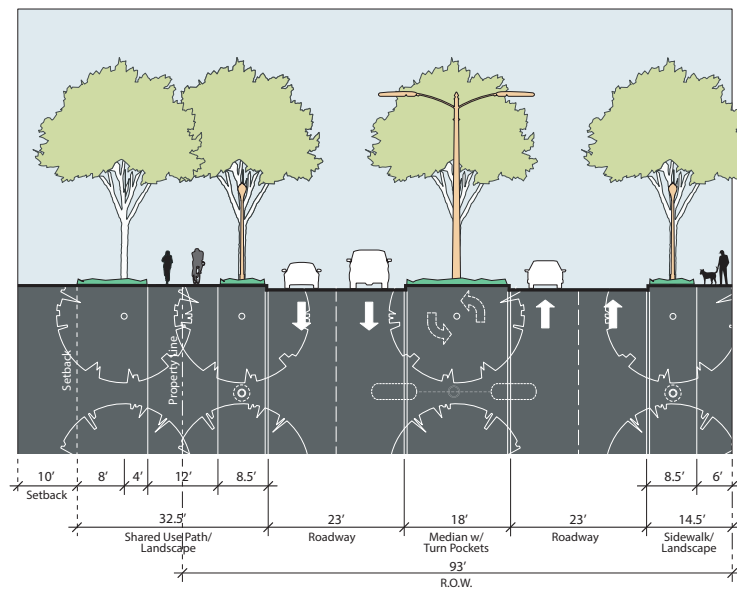
BOULEVARD
MUELLER BOULEVARD LOOKING NORTH
 (PHILOMENA ST. TO ALDRICH ST.)

* Note: Parking instead of cycle track on west side between Ragsdale St. and Aldrich St.

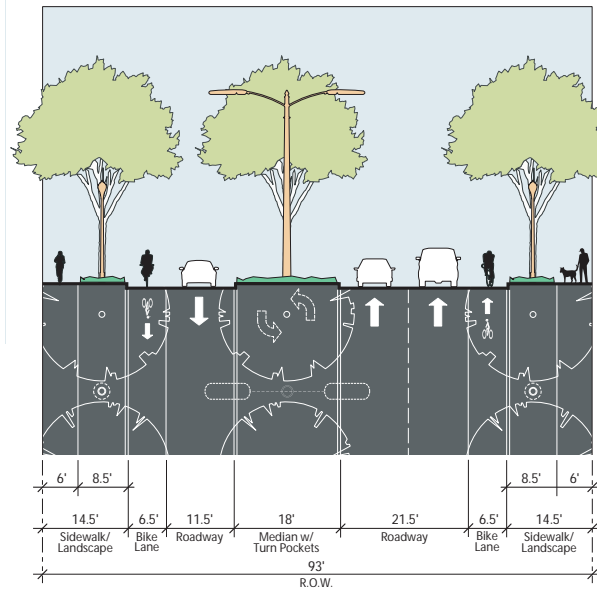
** Note: Potential for High Capacity Transit



A5 BOULEVARD
BARBARA JORDAN BOULEVARD
(IH-35 TO LANCASTER DR.)

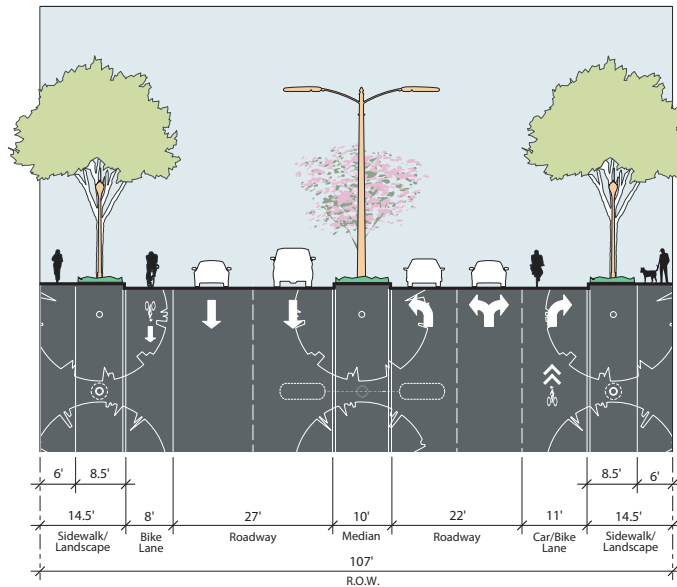


A6 BOULEVARD
BARBARA JORDAN BOULEVARD LOOKING EAST
(LANCASTER DR. TO BERKMAN DR.)



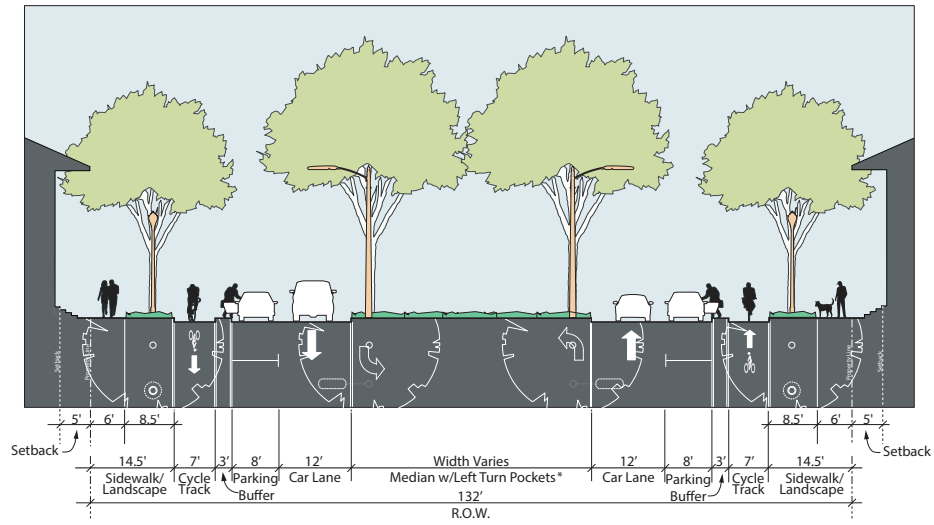
A7

BOULEVARD
LANCASTER DRIVE LOOKING NORTH
(BARBARA JORDAN BLVD. TO 51 ST ST.)

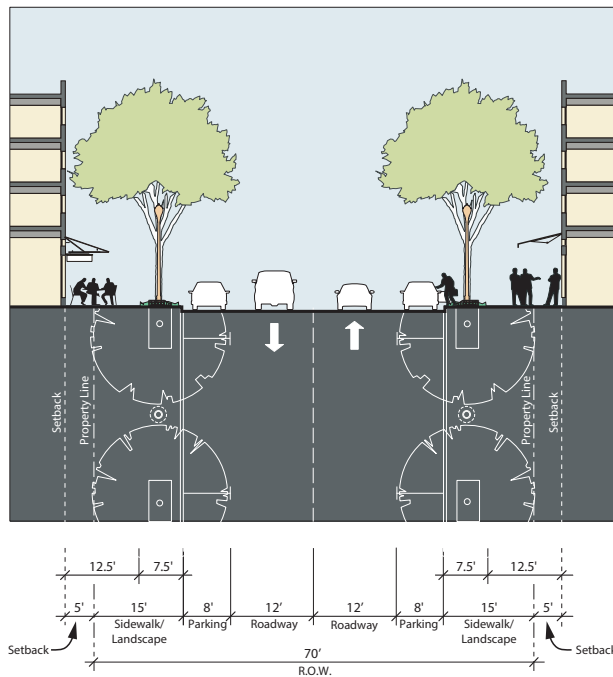


A8

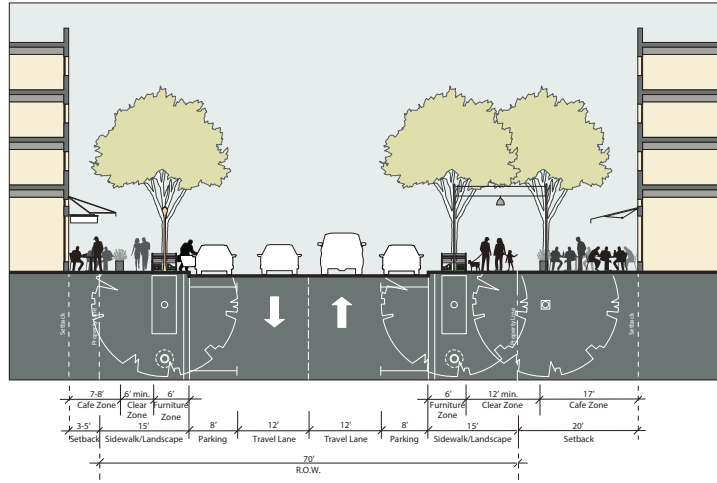
BOULEVARD
ALDRICH STREET LOOKING WEST (ENTRY BOULEVARD)
(AIRPORT BLVD. TO MUELLER BLVD.)



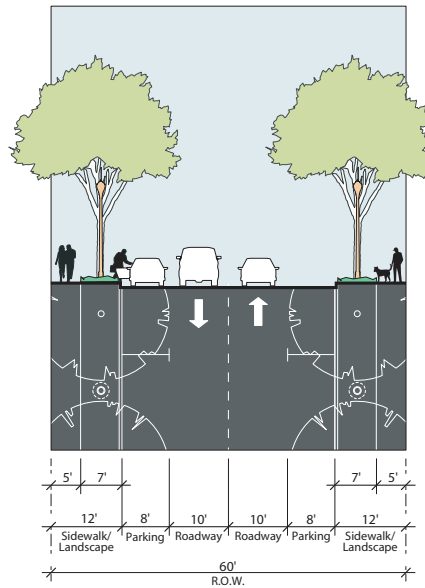
B1 TRANSIT BOULEVARD
BERKMAN DRIVE
(BARBARA JORDAN BLVD. TO ANTONE ST.)
* Note: Potential for High Capacity Transit



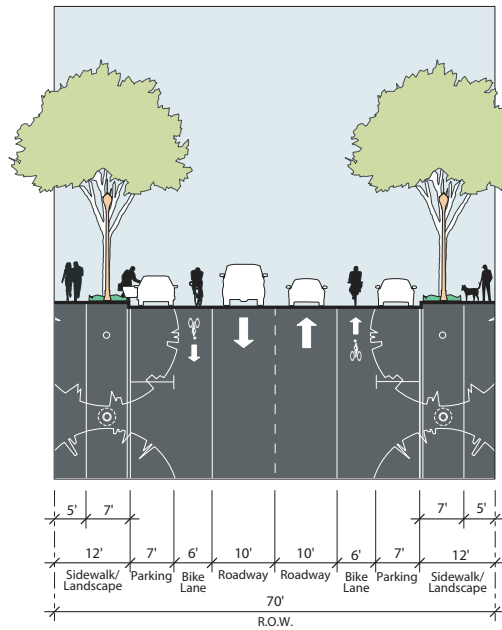
C1 TOWN CENTER MAIN STREET
ALDRICH STREET
(51ST ST. TO PHILOMENA ST.)
(McBEE ST. TO MUELLER BLVD.)



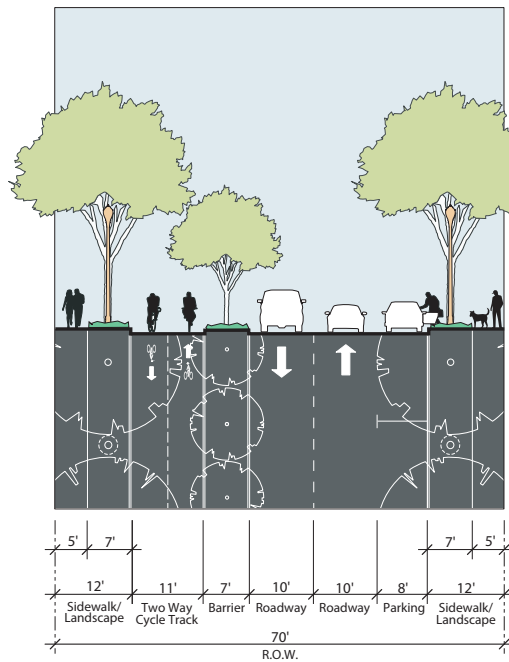
C2 TOWN CENTER MAIN STREET
ALDRICH STREET LOOKING NORTH
(PHILOMENA ST. TO MCBEE ST.)



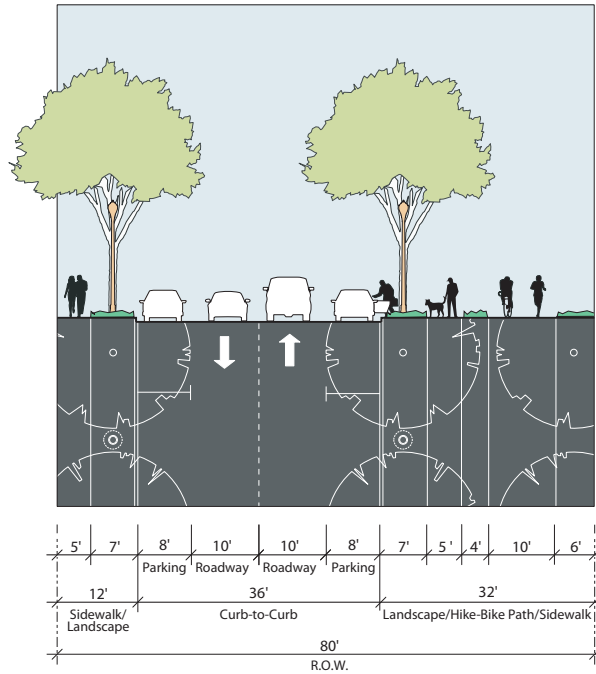
D1 TYPICAL NEIGHBORHOOD CONNECTOR STREET



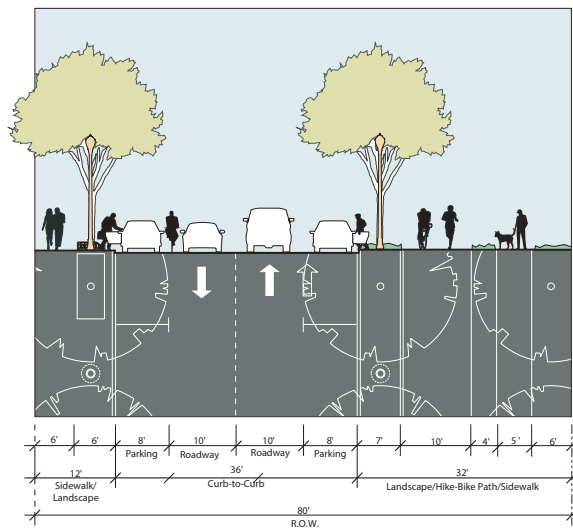
D2 NEIGHBORHOOD CONNECTOR STREET WITH BIKE LANES
ZACH SCOTT STREET
(WEST OF BERKMAN DR.)



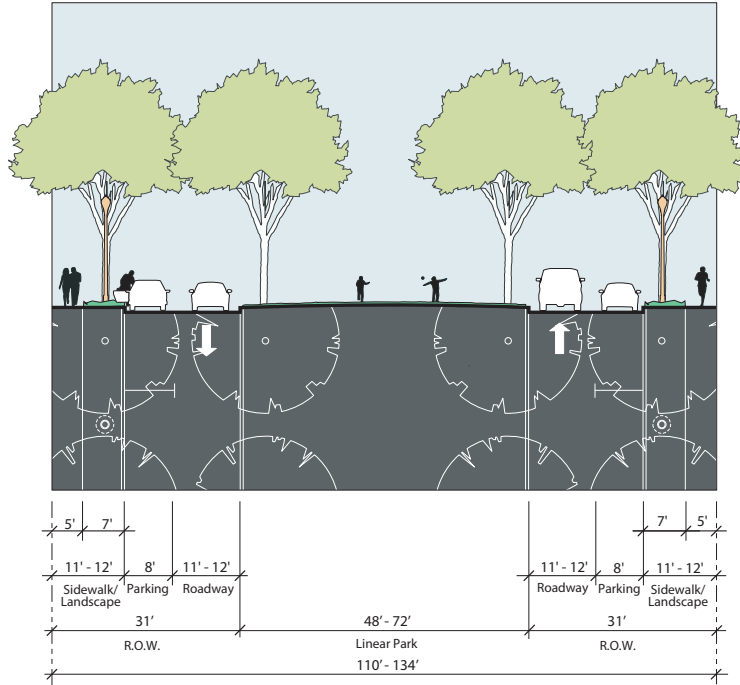
D3 NEIGHBORHOOD CONNECTOR STREET WITH TWO WAY CYCLE TRACK
ZACH SCOTT STREET LOOKING EAST/TILLEY STREET LOOKING SOUTH
(EAST OF BERKMAN DR./SOUTH OF ZACH SCOTT ST.)



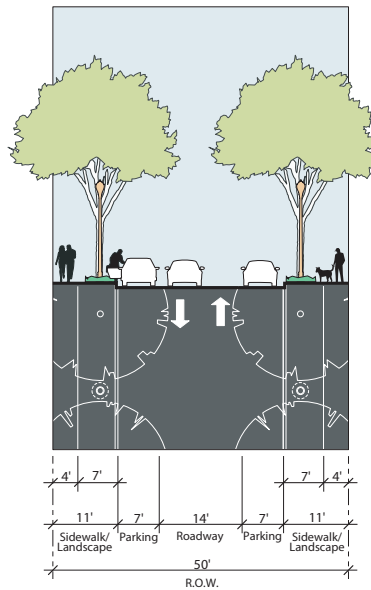
E1 GREENWAY STREET
PHILOMENA STREET LOOKING WEST
(LANCASTER DR. TO MUELLER BLVD.)



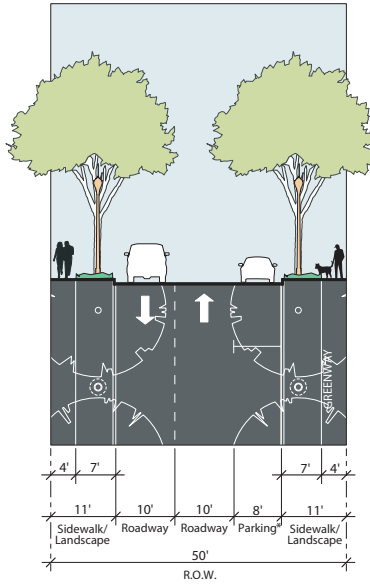
E2 GREENWAY STREET
PHILOMENA STREET LOOKING WEST
(MUELLER BLVD. TO TILLEY ST.)



F1 PARK BOULEVARD
 MATTIE STREET (ZACH SCOTT ST. TO MCCLOSKEY ST.),
 ROBERT BROWNING STREET (KOCUREK ST. TO VAUGHAN ST.),
 SIMOND AVENUE (MATTIE ST. TO TILLEY ST.)

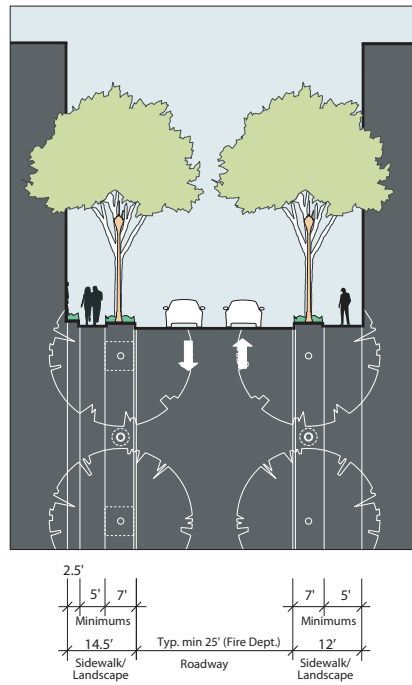


G1 NEIGHBORHOOD LOCAL QUEUING STREET
 (INTERIOR)

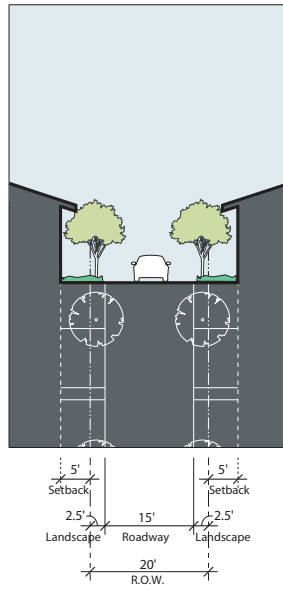


G2 NEIGHBORHOOD LOCAL STREET
(ADJACENT TO GREENWAY)

* Note: Parking adjacent to greenway



H1 SERVICE STREET
LOOKING NORTH



H1 NEIGHBORHOOD ALLEY



APPENDIX E

ALDRICH STREET DISTRICT STREETSCAPE MANUAL

MUELLER

AUSTIN TEXAS

REVISED MARCH 2019

Disclaimer:

This Streetscape Manual is envisioned as a dynamic document that will continue to evolve in response to changing conditions and circumstances. As such, it is anticipated that over the life of the community, the guidelines herein will be refined, waived or amended to incorporate new conditions, special opportunities and/or circumstances.

The Master Developer and the City of Austin advise any party acquiring an interest in the property to obtain a current copy of this manual before making any decisions about acquiring any such interest.

Neither the Master Developer nor the City has made or makes any representations or warranties of any kind or character, express or implied, with respect to this manual. Each party acquiring an interest in property that is the subject of this Streetscape Manual, whether by purchase, lease, as collateral for a loan or otherwise, acknowledges and agrees that it is acquiring such interest without relying upon any such representation, warranty, statement or other assertion, oral or written, made by the Master Developer or the City or any representative of either, with respect to this Streetscape Manual, but rather, is relying upon its own examination and inspection.

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ELS Design Group



ELS Design Group

Town Center streets will extend the landscape qualities of Lake Park into the mixed-use district.

INTRODUCTION & PURPOSE

This manual is intended to communicate to site developers and their associated consultant teams the required design standards for the public sidewalk areas of the Aldrich Street District - Mueller's Town Center. The objective is to equip site development teams with detailed design standards, as well as materials specifications, in order for the pedestrian realm of the Aldrich Street District to be constructed in a coordinated, high-quality manner.

Prospective site developers should also refer to the Mueller Design Book and its current amendments, which describe the context of the Aldrich Street District within the overall Mueller Master Plan, as well as the design guidelines for the treatment of buildings within this special area of the community. The Mueller New Construction Council (NCC) may consider modifications or variations to the layouts and details provided within this manual, on a case-by-case basis, as part of the typical NCC review process.

Questions about the content of this manual, or general questions about the site and building design may be directed to the Mueller Community Manager:
contactus@muelleraustin.com

For more information about the Mueller NCC review process, please see www.MuellerAustinOnline.com



ELS Design Group



ELS Design Group

Aldrich Street will be lined with shops, restaurants and a multi-screened cinema.

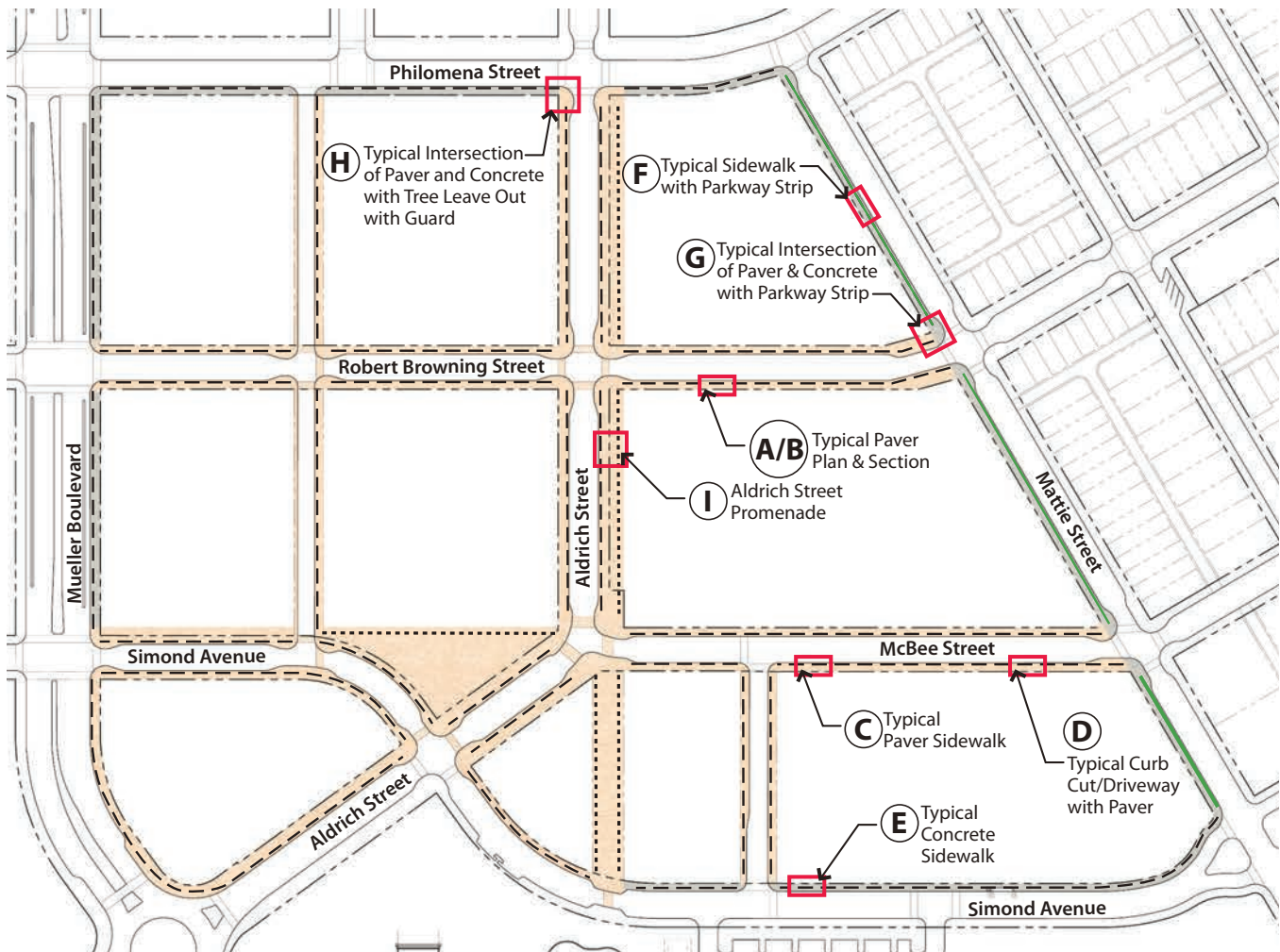
STREETSCAPE DESIGN APPROACH

Mueller's Aldrich Street District is envisioned as a vibrant mixed-use center at the heart of the new community—a place where residents, workers and visitors are naturally drawn, a place to shop for everyday needs, to meet friends for lunch or dinner, to enjoy a concert or movie in Lake Park, or just to take a leisurely stroll down Aldrich Street with its unique shops and restaurants. The design of the streetscapes and pedestrian realm will be key to the success of the Aldrich Street District, and to Mueller's commitment to the creation of a walkable and engaging community that is welcoming to all people.

The design standards set forth in this manual are intended to produce a high quality and consistent pedestrian environment throughout the Aldrich Street District, one that will build and sustain the value and attractiveness of the area as a premium destination in Austin and the region. While diversity of expression is encouraged in the treatment of individual buildings throughout the Mueller community, the public realm comprised of sidewalks, street trees, planting, lighting and furnishings will provide a level of consistency and quality that is in keeping with the Mueller identity.

The design approach to the public realm is purposely understated. It is not the intent to create a themed environment that becomes dated over time. Rather, the goal is to provide an elegant and simple backdrop and “stage” that can support the life of an exciting and engaging urban district—one that is a great place to be alone or to gather in groups, a place to promenade, window shop, sit in cafes, and to watch other people, a place that provides comfort and shade in the heat of the summer, an attractive and well-lit environment at night, a place of beauty that combines landscape and greenery with durable and refined “hardscapes” and most importantly, a place that can evolve and be enriched over time as future generations bring new layers of expression and meaning. These attributes will ensure that Mueller's Aldrich Street District becomes one of Austin's most beloved destinations.

This document is organized into six sections, each one providing key concepts and supporting information, such as dimensional criteria, materials and specifications, which are intended to help each site developer achieve the level of quality and consistency that will achieve the Aldrich Street District vision.



ALDRICH STREET DISTRICT PAVING MASTER PLAN

Legend

- Concrete Sidewalk
- Concrete Paver Sidewalk & Crosswalk
- Tree Paver Grate
- Tree Leave-Out with Guard
- Parkway Strip

NOTE: Site Developers may opt for an alternate treatment with NCC approval.

PAVING MASTER PLAN & DETAILS

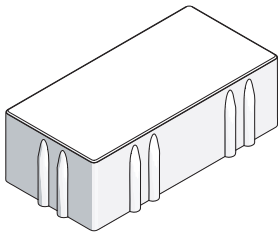
The sidewalks within the Aldrich Street District are generously dimensioned to support the diverse activities of a vibrant urban district, from comfortable promenading to outdoor dining. Buildings will be constructed close to the property line to ensure that ground-level activities and storefronts energize the life of the district, but set back, so that the typical sidewalk is no less than 15 feet in width, and so that the east side of Aldrich Street provides a broad, café-lined promenade of 35 feet (20’ of which are behind the property line). Any area behind the property line will be paved with the same materials as the adjacent public sidewalk area, but will allow for the personality of individual businesses to be expressed through unique storefronts, planters, vine pockets, cafes, potted plants, bay windows, awnings, trellises and the other architectural “ins and outs” of a building.

Permeable Paver Sidewalks: The primary paving material used in the core of the Aldrich Street District will be a permeable, concrete paver in a unit module slightly bigger than that of a brick, laid over a consolidated subgrade. This paver was chosen to give the Aldrich Street District a more special feel than a plain concrete sidewalk, while providing a durable, practical and economical paving system that allows for future changes and sidewalk maintenance. In addition, because these pavers have permeable “joints” or spaces between the modules, some stormwater run-off will be intercepted, thereby providing an environmental benefit. To further upgrade the appearance of the Aldrich Street District streetscape, a 12” concrete curb will be utilized wherever the permeable paver is specified.

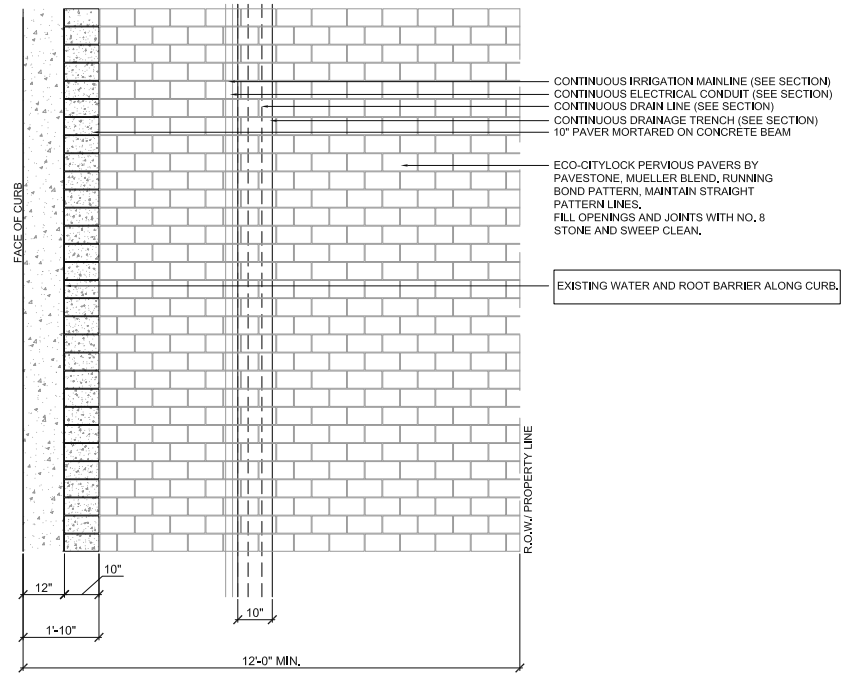
Plain Concrete Sidewalks: Along portions of the perimeter streets of the Aldrich Street District, designated opposite (i.e. Simond Avenue, Mueller Boulevard, Mattie Street and Philomena) - a plain,



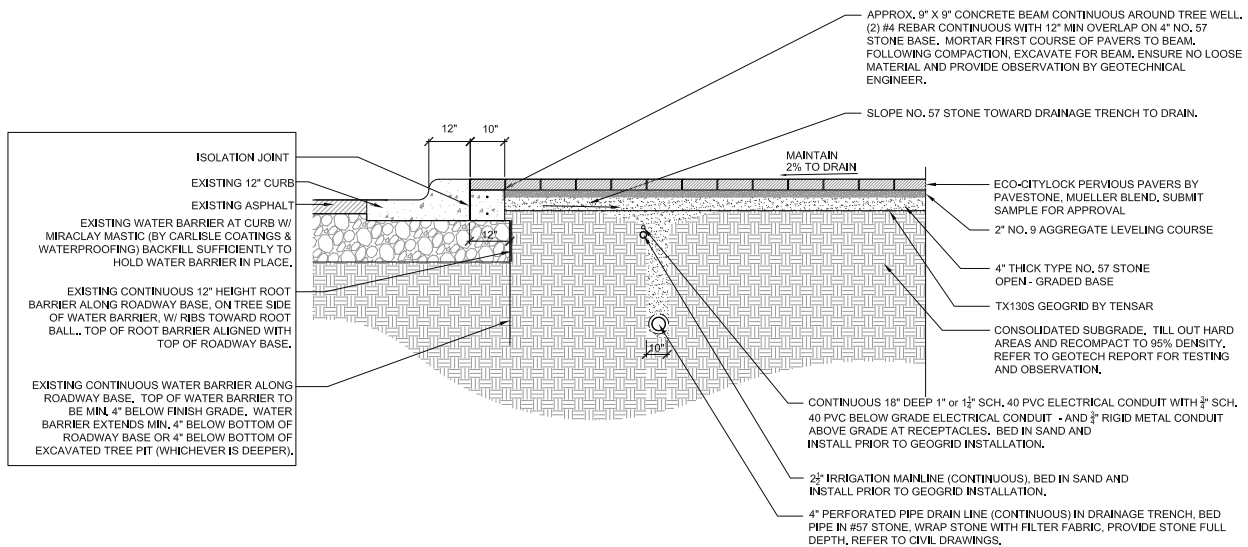
Concrete Permeable Pavers (Eco-CityLock by Pavestone, or Aqua Rock by Old Castle), “Mueller Blend”, Running Bond Pattern



| | | |
|--------|-------|-------|
| Height | in | 3.14 |
| | mm | 80.0 |
| Width | in | 5.00 |
| | mm | 127.0 |
| Depth | in | 10.00 |
| | mm | 254.0 |
| Units | ea/pl | 280 |



A **TYPICAL PAVER SIDEWALK PLAN**
Source: RVi

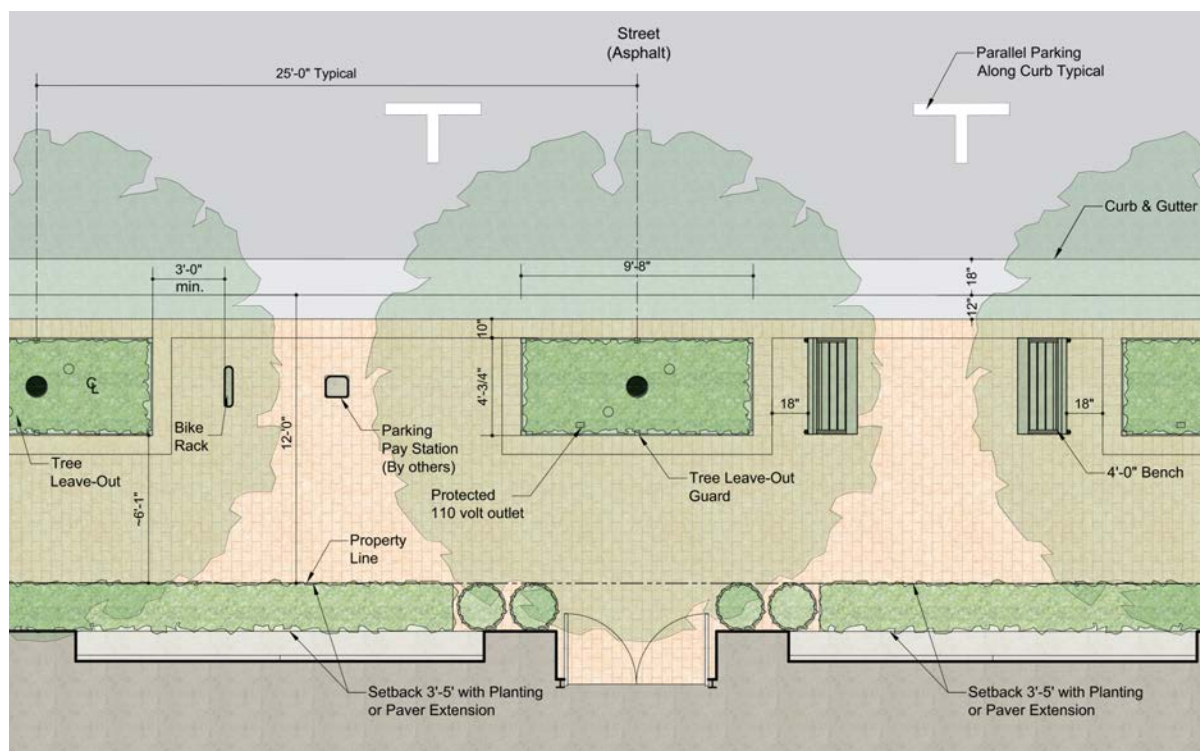


B **TYPICAL PAVER SIDEWALK SECTION**
Source: RVi

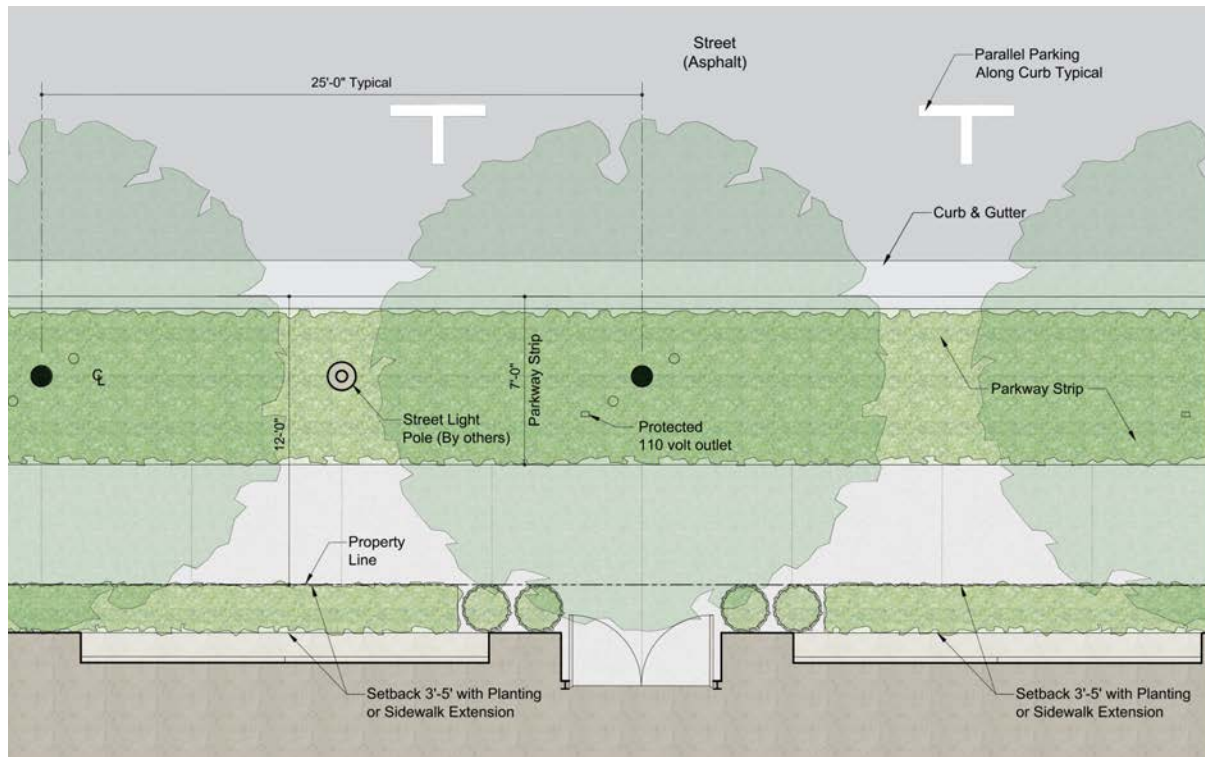
poured concrete sidewalk with a light broom finish is specified, consistent with the opposite sides of the street and the remainder of the Mueller community. Sidewalk expansion and control joints shall be coordinated with the tree leave-out spacing and geometry, as shown on the typical plan layouts and details in this section of the manual.

Continuity of Paving to Building Faces: Typically, the Aldrich Street District buildings will be set back from the property line between three and five feet. The specified paving, whether plain concrete or pavers, shall extend across the property line to meet the building faces, except where site developers choose to include landscaped area leave-outs or vine pockets along the building face. For ground-level commercial uses, setbacks shall be flush or level with the public portion of the right-of-way.

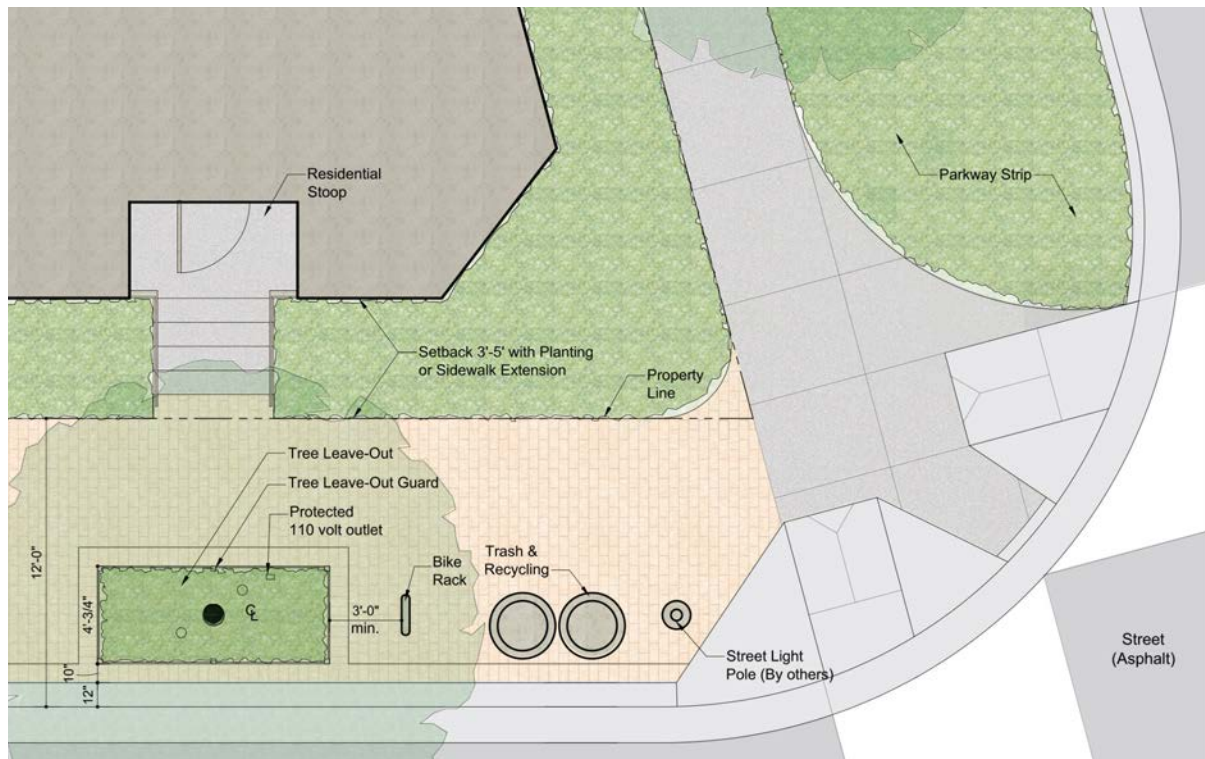
The plans and details on the following pages provide layouts, dimensions and details for the typical Aldrich Street District sidewalks with both pavers and poured concrete and for the wider Aldrich Street promenade. A variety of conditions are illustrated including the treatment of curb cuts and driveways, intersections, tree leave-outs, paver grates and parkway strips.



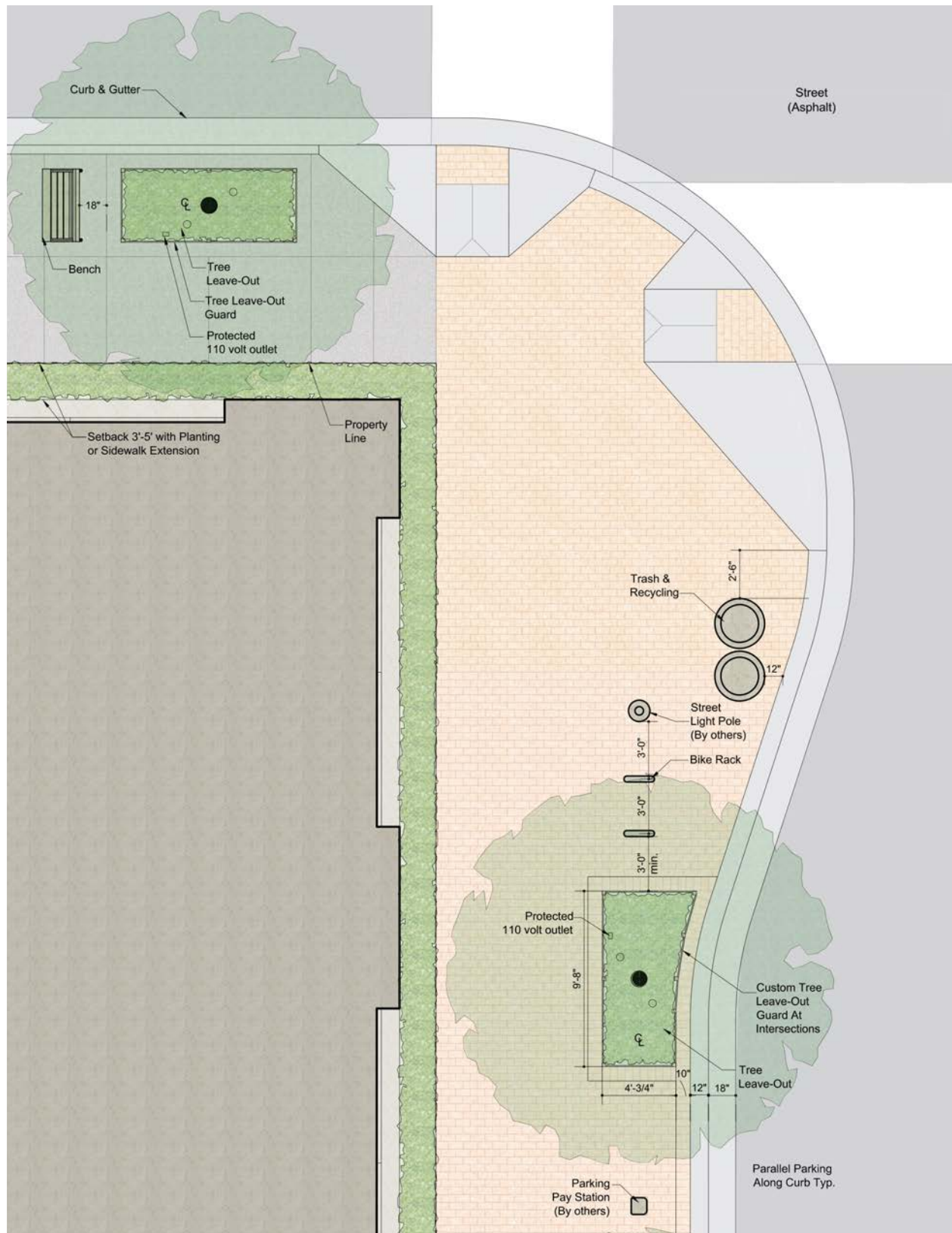
© **TYPICAL ALDRICH STREET DISTRICT PAVER SIDEWALK**



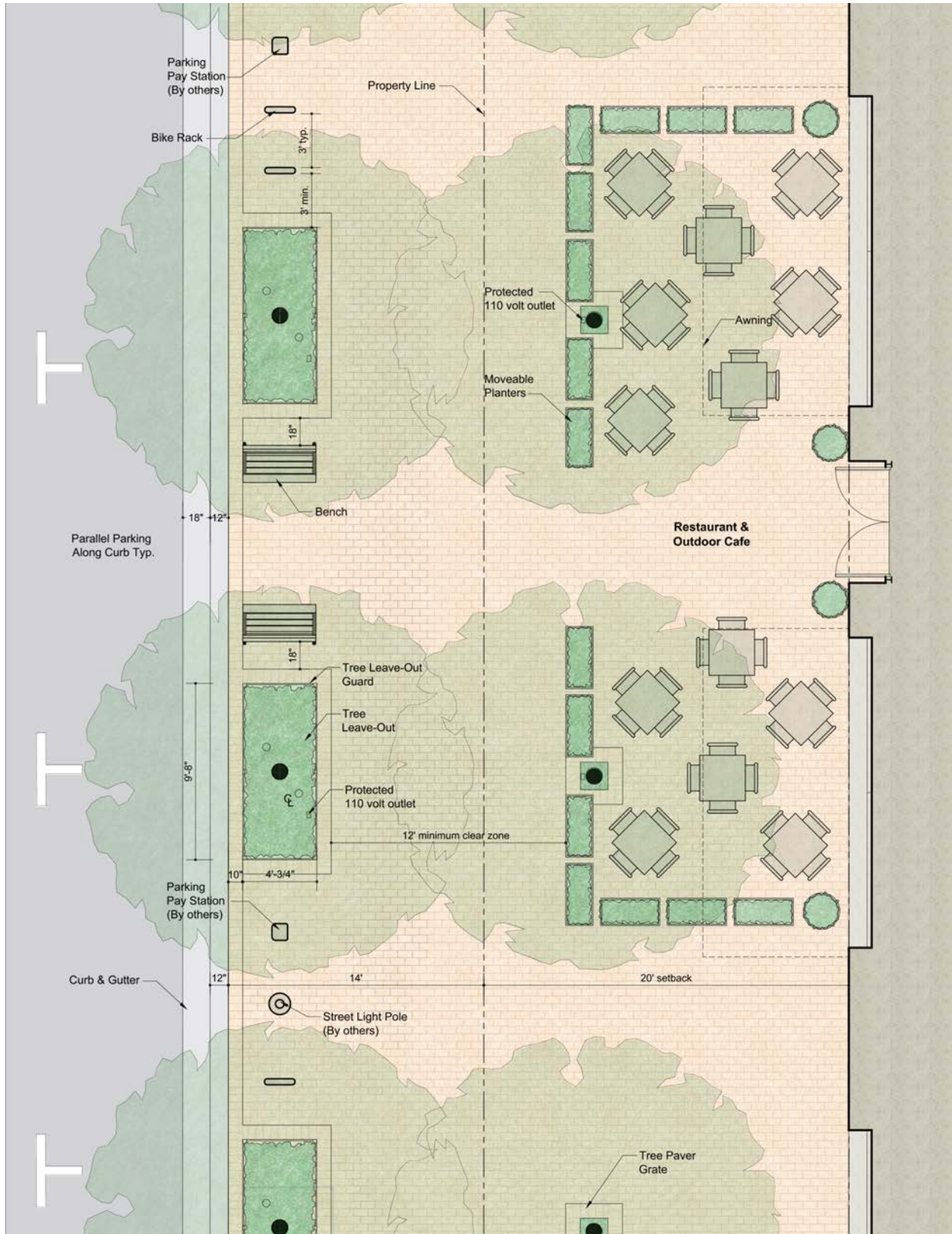
F TYPICAL SIDEWALK WITH PARKWAY STRIP (MATTIE STREET)



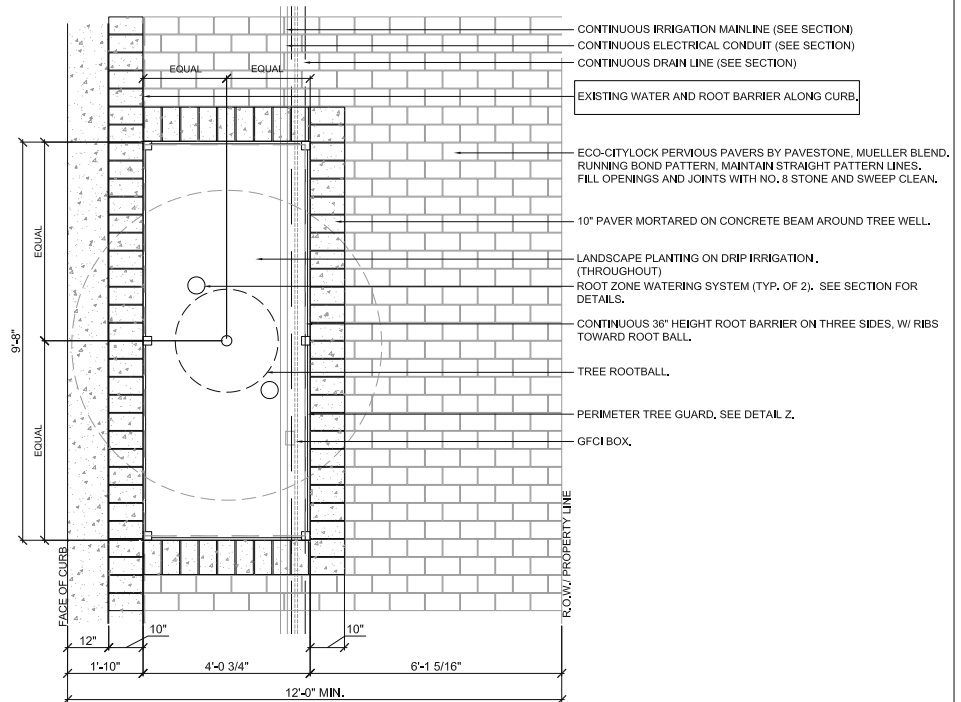
G TYPICAL INTERSECTION CONDITION WITH PAVER AND CONCRETE SIDEWALK WITH PARKWAY STRIP



(H) INTERSECTION CONDITION WITH PAVER AND CONCRETE SIDEWALKS WITH TREE LEAVE-OUT



① EAST SIDE OF ALDRICH STREET PROMENADE WITH CAFE AT STOREFRONT



J ALDRICH STREET CURBSIDE TREE LEAVE-OUT PLAN WITH PERMEABLE PAVERS

Source: RVi (Same as Detail N)

ROOT BARRIER AT BEAM:

ROOT BARRIER, LB 12-2

(12" HEIGHT PANEL DIMENSION)

BY DEEP ROOT PARTNERS, L.P.

530 WASHINGTON ST

SAN FRANCISCO, CA 94111

TEL: 800,458,7668

ROOT BARRIER:

AT SIDEWALK & ROAD BASE

OVERBUILD: ROOT BARRIER, UB 12-2

(12" HEIGHT PANEL DIMENSION)

AT STORM INLETS AND TREE WELLS:

ROOT BARRIER, UB 36-2

(36" HEIGHT PANEL DIMENSION)

BY DEEP ROOT PARTNERS, L.P.

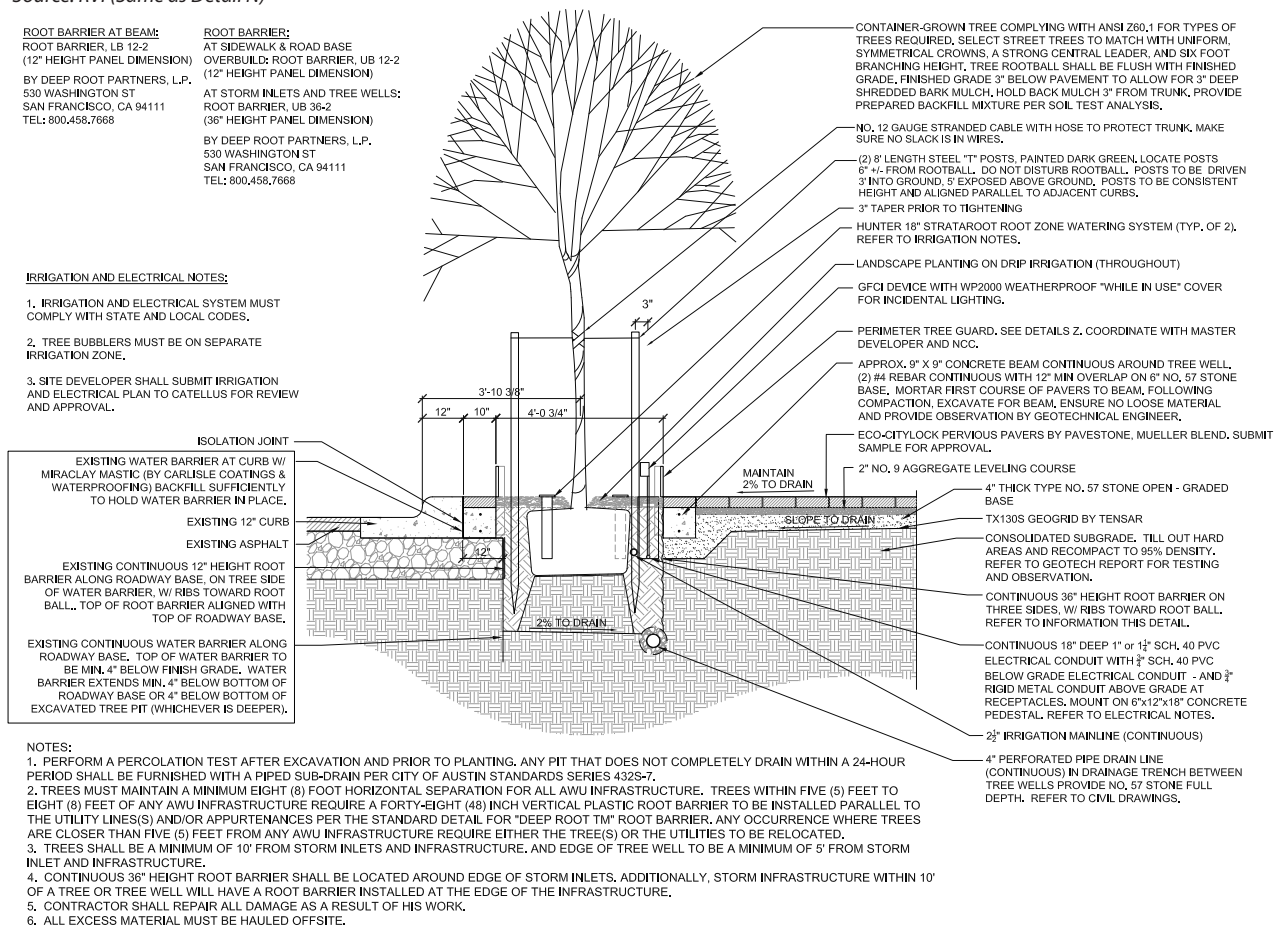
530 WASHINGTON ST

SAN FRANCISCO, CA 94111

TEL: 800,458,7668

IRRIGATION AND ELECTRICAL NOTES:

1. IRRIGATION AND ELECTRICAL SYSTEM MUST COMPLY WITH STATE AND LOCAL CODES.
2. TREE BUBBLERS MUST BE ON SEPARATE IRRIGATION ZONE.
3. SITE DEVELOPER SHALL SUBMIT IRRIGATION AND ELECTRICAL PLAN TO CATELLUS FOR REVIEW AND APPROVAL.

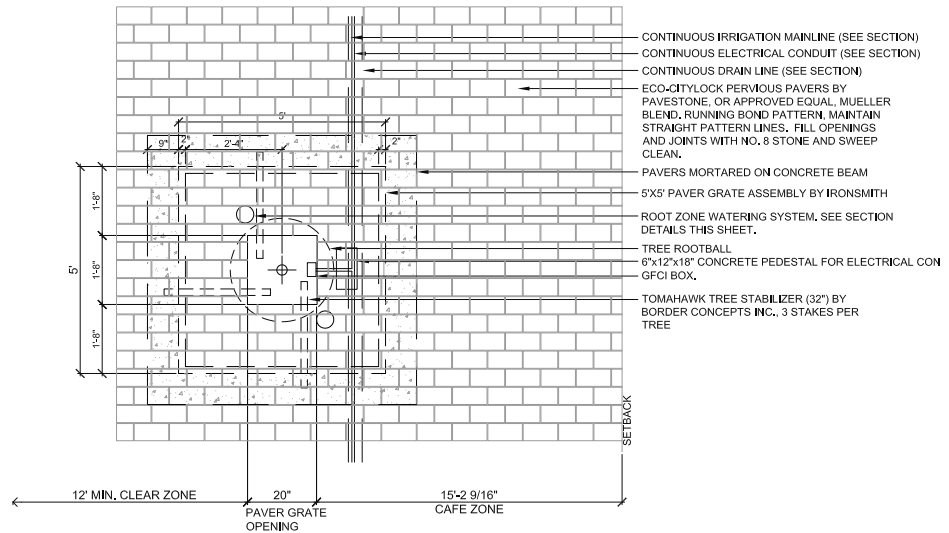


NOTES:

1. PERFORM A PERCOLATION TEST AFTER EXCAVATION AND PRIOR TO PLANTING. ANY PIT THAT DOES NOT COMPLETELY DRAIN WITHIN A 24-HOUR PERIOD SHALL BE FURNISHED WITH A PIPED SUB-DRAIN PER CITY OF AUSTIN STANDARDS SERIES 4325-7.
2. TREES MUST MAINTAIN A MINIMUM EIGHT (8) FOOT HORIZONTAL SEPARATION FOR ALL AWW INFRASTRUCTURE. TREES WITHIN FIVE (5) FEET TO EIGHT (8) FEET OF ANY AWW INFRASTRUCTURE REQUIRE A FORTY-EIGHT (48) INCH VERTICAL PLASTIC ROOT BARRIER TO BE INSTALLED PARALLEL TO THE UTILITY LINES(S) AND/OR APPURTENANCES PER THE STANDARD DETAIL FOR "DEEP ROOT TM" ROOT BARRIER. ANY OCCURRENCE WHERE TREES ARE CLOSER THAN FIVE (5) FEET FROM ANY AWW INFRASTRUCTURE REQUIRE EITHER THE TREE(S) OR THE UTILITIES TO BE RELOCATED.
3. TREES SHALL BE A MINIMUM OF 10' FROM STORM INLETS AND INFRASTRUCTURE, AND EDGE OF TREE WELL TO BE A MINIMUM OF 5' FROM STORM INLET AND INFRASTRUCTURE.
4. CONTINUOUS 36" HEIGHT ROOT BARRIER SHALL BE LOCATED AROUND EDGE OF STORM INLETS. ADDITIONALLY, STORM INFRASTRUCTURE WITHIN 10' OF A TREE OR TREE WELL WILL HAVE A ROOT BARRIER INSTALLED AT THE EDGE OF THE INFRASTRUCTURE.
5. CONTRACTOR SHALL REPAIR ALL DAMAGE AS A RESULT OF HIS WORK.
6. ALL EXCESS MATERIAL MUST BE HAULED OFFSITE.

K ALDRICH STREET CURBSIDE TREE LEAVE-OUT WITH PERMEABLE PAVERS SECTION

Source: RVi (Same as Detail O)



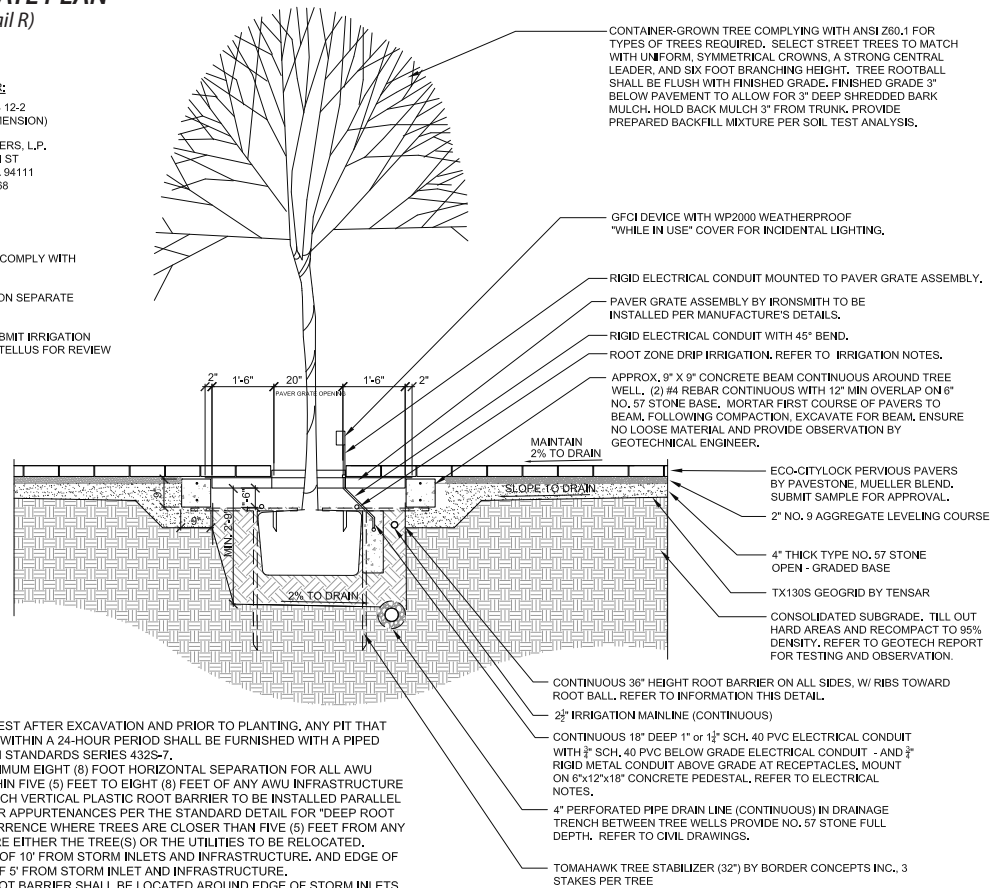
L TYPICAL PAVER GRATE PLAN

Source: RVI (Same as Detail R)

ROOT BARRIER:
ROOT BARRIER, LB 12-2
(12" HEIGHT PANEL DIMENSION)
BY DEEP ROOT PARTNERS, L.P.
530 WASHINGTON ST.
SAN FRANCISCO, CA 94111
TEL: 800.458.7668

IRRIGATION NOTES:

1. IRRIGATION SYSTEM MUST COMPLY WITH STATE AND LOCAL CODES.
2. TREE BUBBLERS MUST BE ON SEPARATE IRRIGATION ZONE.
3. SITE DEVELOPER SHALL SUBMIT IRRIGATION AND ELECTRICAL PLAN TO CATTELLUS FOR REVIEW AND APPROVAL.



NOTES:

1. PERFORM A PERCOLATION TEST AFTER EXCAVATION AND PRIOR TO PLANTING, ANY PIT THAT DOES NOT COMPLETELY DRAIN WITHIN A 24-HOUR PERIOD SHALL BE FURNISHED WITH A PIPED SUB-DRAIN PER CITY OF AUSTIN STANDARDS SERIES 432S-7.
2. TREES MUST MAINTAIN A MINIMUM EIGHT (8) FOOT HORIZONTAL SEPARATION FOR ALL AWU INFRASTRUCTURE. TREES WITHIN FIVE (5) FEET TO EIGHT (8) FEET OF ANY AWU INFRASTRUCTURE REQUIRE A FORTY-EIGHT (48) INCH VERTICAL PLASTIC ROOT BARRIER TO BE INSTALLED PARALLEL TO THE UTILITY LINES(S) AND/OR APPURTENANCES PER THE STANDARD DETAIL FOR "DEEP ROOT TM" ROOT BARRIER. ANY OCCURRENCE WHERE TREES ARE CLOSER THAN FIVE (5) FEET FROM ANY AWU INFRASTRUCTURE REQUIRE EITHER THE TREE(S) OR THE UTILITIES TO BE RELOCATED.
3. TREES SHALL BE A MINIMUM OF 10' FROM STORM INLETS AND INFRASTRUCTURE. AND EDGE OF TREE WELL TO BE A MINIMUM OF 5' FROM STORM INLET AND INFRASTRUCTURE.
4. CONTINUOUS 36" HEIGHT ROOT BARRIER SHALL BE LOCATED AROUND EDGE OF STORM INLETS. ADDITIONALLY, STORM INFRASTRUCTURE WITHIN 10' OF A TREE OR TREE WELL WILL HAVE A ROOT BARRIER INSTALLED AT THE EDGE OF THE INFRASTRUCTURE.
5. CONTRACTOR SHALL REPAIR ALL DAMAGE AS A RESULT OF HIS WORK.
6. ALL EXCESS MATERIAL MUST BE HAULED OFFSITE.

M TYPICAL PAVER GRATE PLAN

Source: RVI (Same as Detail S)



ALDRICH STREET DISTRICT TREE SPECIES MASTER PLAN

-  Mexican White Oak
-  Texas Red Oak
-  Cedar Elm
-  Shumard Oak
-  Chinquapin Oak
-  Live Oak

NOTE: Exact location of trees to be confirmed with Catellus, RVI and Bury during Site Permit process.

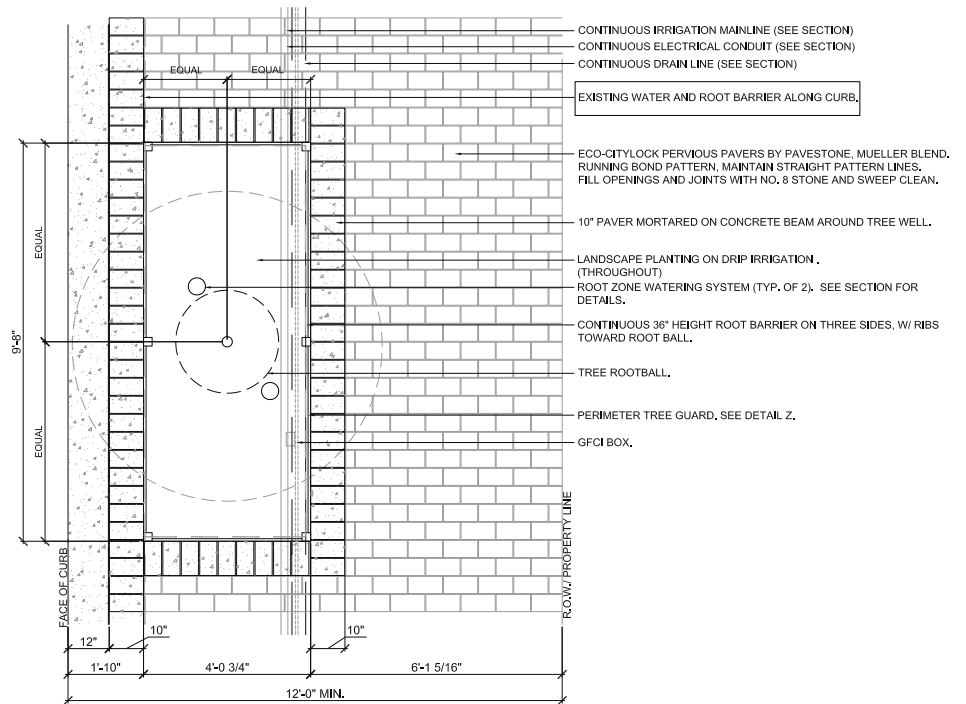
STREET TREE MASTER PLAN & DETAILS

As in other areas in Mueller, the street trees of the Aldrich Street District are native species, per the Street Tree Master Plan (left) with “strong central leaders”, or straight, single trunks, that will be limbed up to a height of 14 feet at maturity. In this way, the street trees will provide a continuous canopy, shading the sidewalks and a large portion of the roadway, without obstructing views to storefronts.

Street trees shall typically be planted at approximately 22 to 25 feet on center and according to the detailed infrastructure and streetscape plans to be furnished to each site developer by Catellus. The trees shall be a minimum of four-inch caliper in a 65 gallon container.

The following pages provide dimensional layouts and planting details for tree leave-outs on both plain, poured concrete and concrete paver sidewalks and for the planted parkways along the curbsides of the perimeter streets and paver grates.





N TREE LEAVE-OUT WITH PERMEABLE PAVERS PLAN

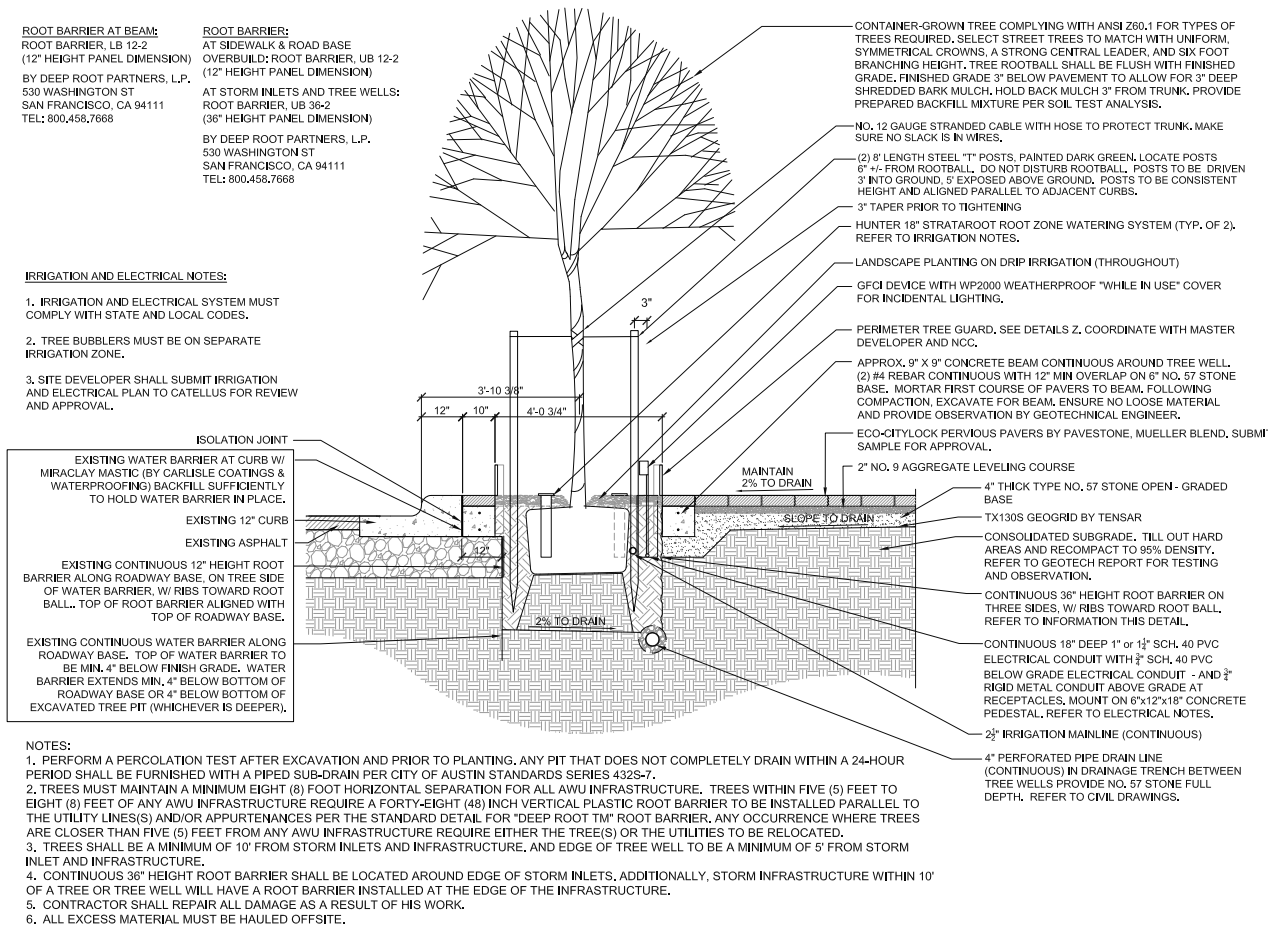
Source: RvI (Same as Detail J)

ROOT BARRIER AT BEAM:
ROOT BARRIER, LB 12-2
(12" HEIGHT PANEL DIMENSION)
BY DEEP ROOT PARTNERS, L.P.,
530 WASHINGTON ST
SAN FRANCISCO, CA 94111
TEL: 800.458.7668

ROOT BARRIER:
AT SIDEWALK & ROAD BASE
OVERBUILD: ROOT BARRIER, UB 12-2
(12" HEIGHT PANEL DIMENSION)
AT STORM INLETS AND TREE WELLS:
ROOT BARRIER, UB 36-2
(36" HEIGHT PANEL DIMENSION)
BY DEEP ROOT PARTNERS, L.P.,
530 WASHINGTON ST
SAN FRANCISCO, CA 94111
TEL: 800.458.7668

IRRIGATION AND ELECTRICAL NOTES:

1. IRRIGATION AND ELECTRICAL SYSTEM MUST COMPLY WITH STATE AND LOCAL CODES.
2. TREE BUBBLERS MUST BE ON SEPARATE IRRIGATION ZONE.
3. SITE DEVELOPER SHALL SUBMIT IRRIGATION AND ELECTRICAL PLAN TO CATELLUS FOR REVIEW AND APPROVAL.

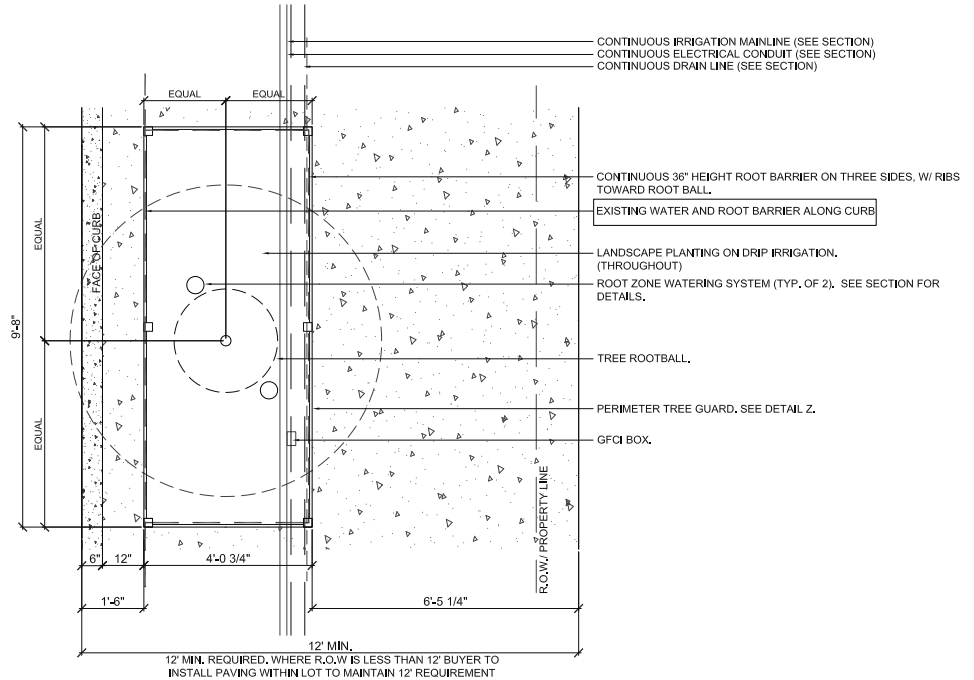


NOTES:

1. PERFORM A PERCOLATION TEST AFTER EXCAVATION AND PRIOR TO PLANTING. ANY PIT THAT DOES NOT COMPLETELY DRAIN WITHIN A 24-HOUR PERIOD SHALL BE FURNISHED WITH A PIPED SUB-DRAIN PER CITY OF AUSTIN STANDARDS SERIES 432S-7.
2. TREES MUST MAINTAIN A MINIMUM EIGHT (8) FOOT HORIZONTAL SEPARATION FOR ALL AWW INFRASTRUCTURE. TREES WITHIN FIVE (5) FEET TO EIGHT (8) FEET OF ANY AWW INFRASTRUCTURE REQUIRE A FORTY-EIGHT (48) INCH VERTICAL PLASTIC ROOT BARRIER TO BE INSTALLED PARALLEL TO THE UTILITY LINE(S) AND/OR APPURTENANCES PER THE STANDARD DETAIL FOR "DEEP ROOT TM" ROOT BARRIER. ANY OCCURRENCE WHERE TREES ARE CLOSER THAN FIVE (5) FEET FROM ANY AWW INFRASTRUCTURE REQUIRE EITHER THE TREE(S) OR THE UTILITIES TO BE RELOCATED.
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4. CONTINUOUS 36" HEIGHT ROOT BARRIER SHALL BE LOCATED AROUND EDGE OF STORM INLETS, ADDITIONALLY, STORM INFRASTRUCTURE WITHIN 10' OF A TREE OR TREE WELL WILL HAVE A ROOT BARRIER INSTALLED AT THE EDGE OF THE INFRASTRUCTURE.
5. CONTRACTOR SHALL REPAIR ALL DAMAGE AS A RESULT OF HIS WORK.
6. ALL EXCESS MATERIAL MUST BE HAULED OFFSITE.

O TREE LEAVE-OUT WITH PERMEABLE PAVERS SECTION

Source: RvI (Same as Detail K)



P TREE LEAVE-OUT WITH CONCRETE SIDEWALK PLAN

Source: RVI

ROOT BARRIER:
AT SIDEWALK & ROAD BASE OVERBUILD;
ROOT BARRIER, UB 12-2
(12" HEIGHT PANEL DIMENSION)

AT STORM INLETS AND TREE WELLS:
ROOT BARRIER, UB 36-2
(36" HEIGHT PANEL DIMENSION)

BY DEEP ROOT PARTNERS, LP,
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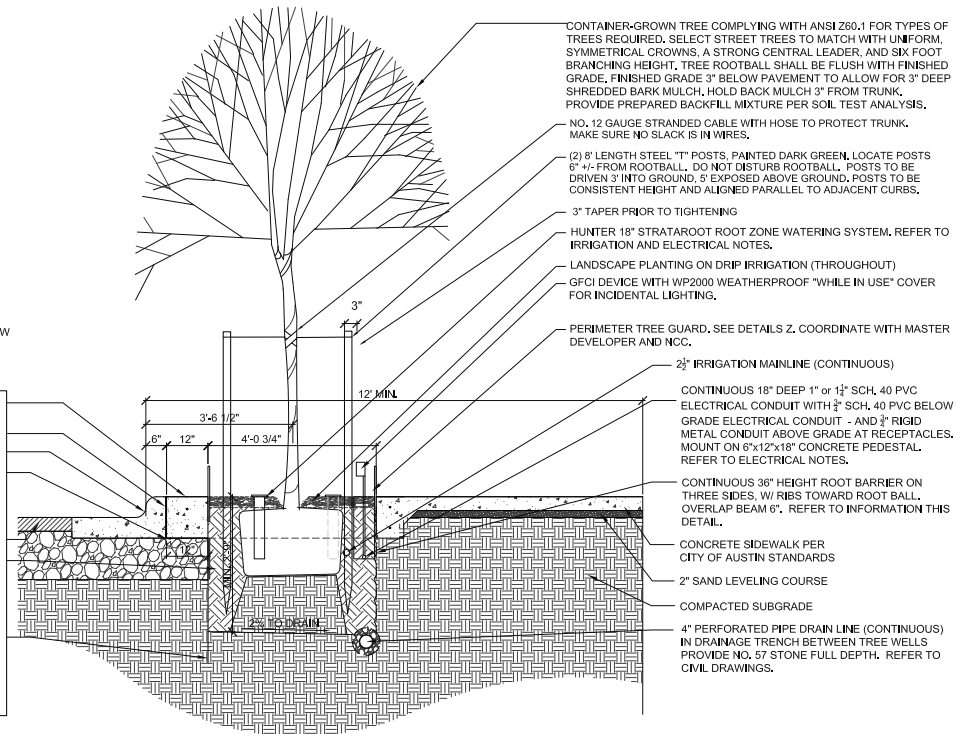
EXISTING 12"x12" CONCRETE STEP-OUT WITH (2) #4 REBAR CONTINUOUS WITH 12" MIN. OVERLAP
ISOLATION JOINT
EXISTING 6" CURB

EXISTING WATER BARRIER TO CURB W/ MIRACLAY MASTIC (BY CARLISLE COATINGS & WATERPROOFING) BACKFILL SUFFICIENTLY TO HOLD WATER BARRIER IN PLACE.

EXISTING ASPHALT

EXISTING CONTINUOUS 12" HEIGHT ROOT BARRIER ALONG ROADWAY BASE, ON TREE SIDE OF WATER BARRIER, W/ RIBS TOWARD ROOT BALL. TOP OF ROOT BARRIER TO BE ALIGNED WITH TOP OF ROADWAY BASE.

EXISTING CONTINUOUS WATER BARRIER ALONG ROADWAY BASE, TOP OF WATER BARRIER TO BE MIN. 4" BELOW FINISH GRADE. EXTEND WATER BARRIER MIN. 4" BELOW BOTTOM OF EXCAVATED TREE PIT (WHICHEVER IS DEEPER).

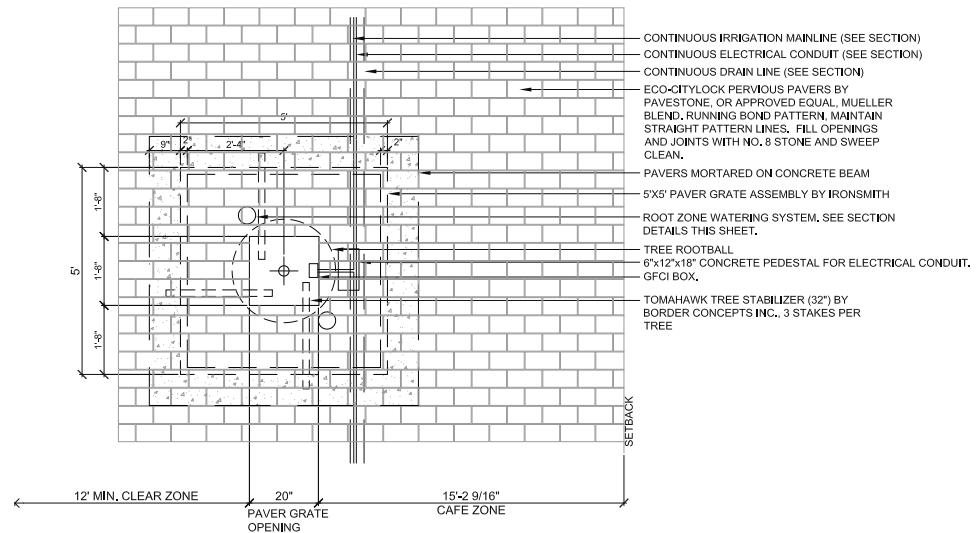


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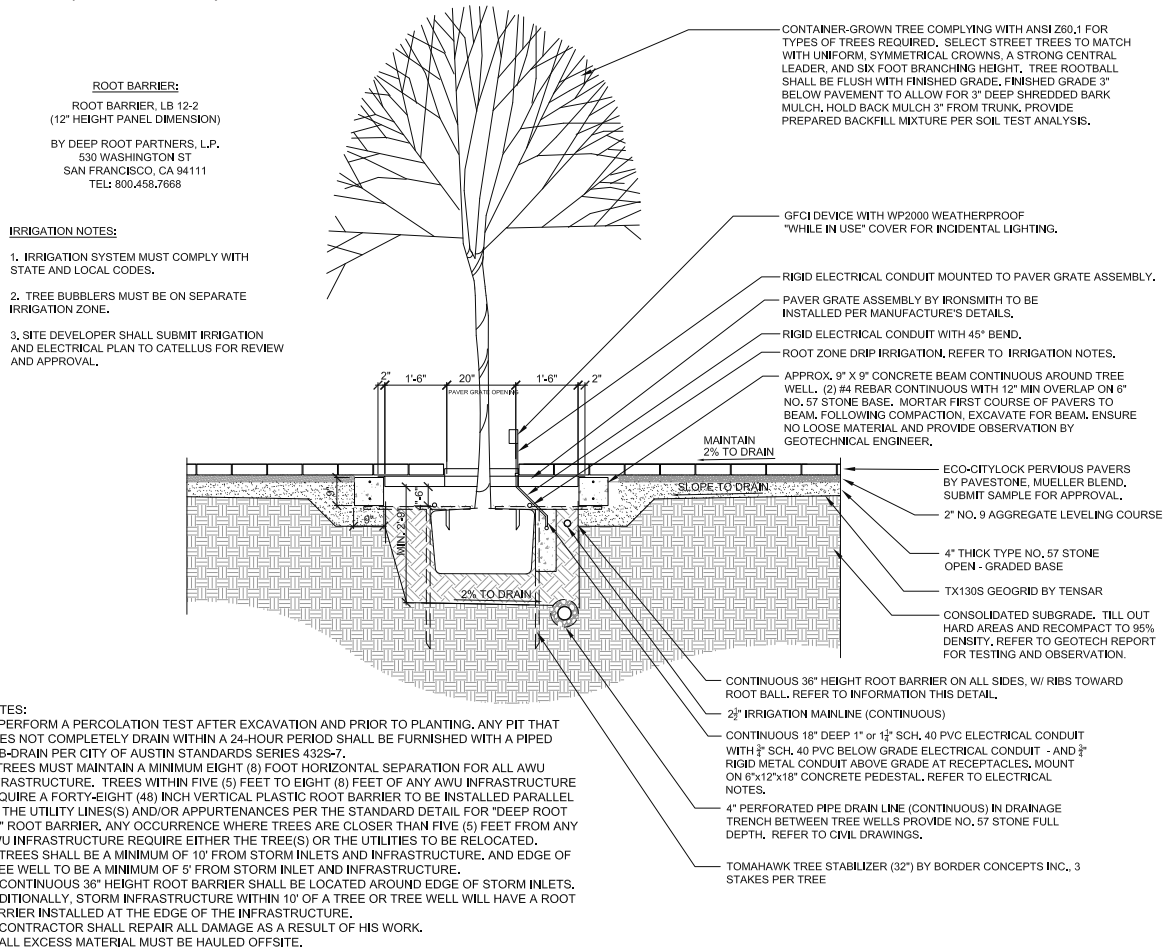
Q TREE LEAVE-OUT WITH CONCRETE SIDEWALK SECTION

Source: RVI



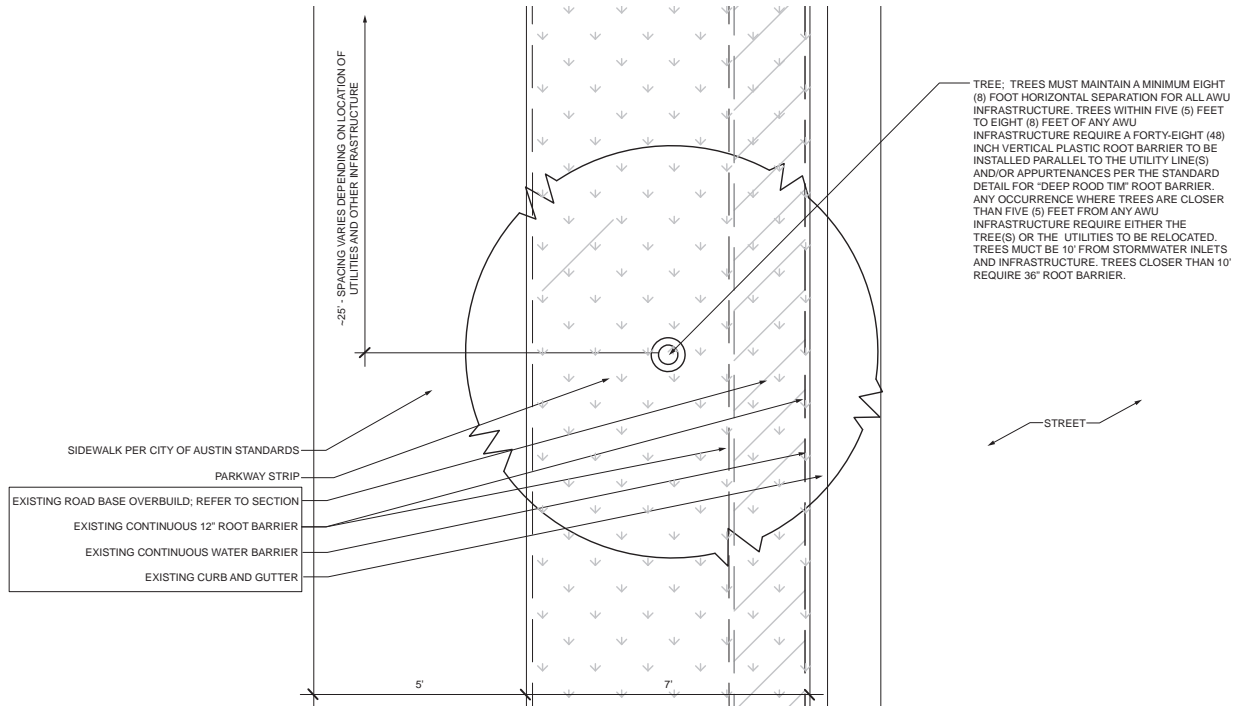
R TYPICAL PAVER GRATE TREE PLANTING PLAN

Source: RVi (Same as Detail L)



S TYPICAL PAVER GRATE TREE PLANTING SECTION

Source: RVi (Same as Detail M)



T TYPICAL PARKWAY PLAN

Source: RVI

ROOT BARRIER:
AT SIDEWALK & ROAD BASE OVERBUILD;
ROOT BARRIER, UB 12-2
(12" HEIGHT PANEL DIMENSION)
AT STORM INLETS AND TREE WELLS;
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SAN FRANCISCO, CA 94111
TEL: 800.458.7668

CONTAINER-GROWN TREE COMPLYING WITH ANSI Z60.1 FOR TYPES OF TREES REQUIRED, SELECT STREET TREES TO MATCH WITH UNIFORM, SYMMETRICAL CROWNS, A STRONG CENTRAL LEADER, AND SIX FOOT BRANCHING HEIGHT

CURB OFFSET 3'-9" TO CENTER OF TRUNK;

TREE BUBBLERS (2/TREE) ON SEPARATE BUBBLER ZONE

PARKWAY IRRIGATION SYSTEM: POP-UP STRIP PATTERN SPRAYS ON TURF ZONE. REFER TO IRRIGATION NOTES.

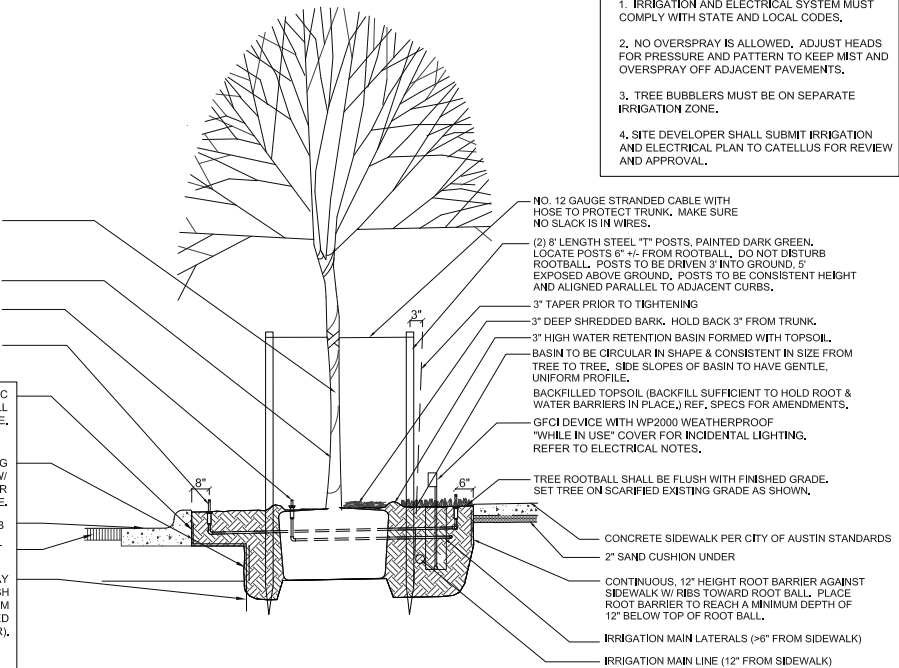
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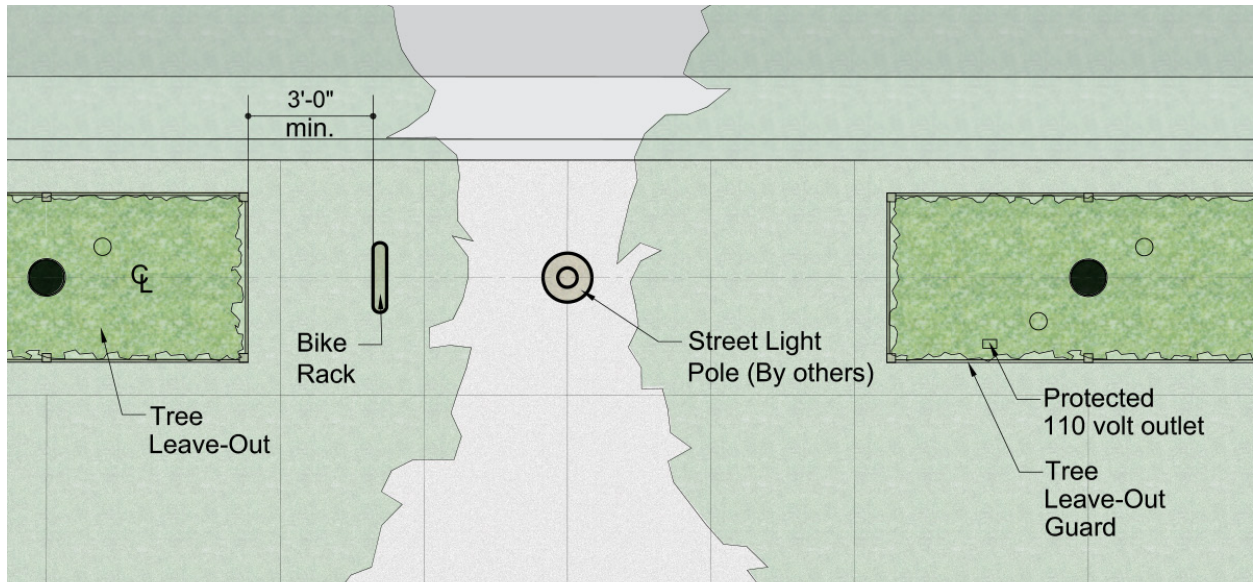
IRRIGATION AND ELECTRICAL NOTES:

1. IRRIGATION AND ELECTRICAL SYSTEM MUST COMPLY WITH STATE AND LOCAL CODES.
2. NO OVERSPRAY IS ALLOWED, ADJUST HEADS FOR PRESSURE AND PATTERN TO KEEP MIST AND OVERSPRAY OFF ADJACENT PAVEMENTS.
3. TREE BUBBLERS MUST BE ON SEPARATE IRRIGATION ZONE.
4. SITE DEVELOPER SHALL SUBMIT IRRIGATION AND ELECTRICAL PLAN TO CAPELLUS FOR REVIEW AND APPROVAL.

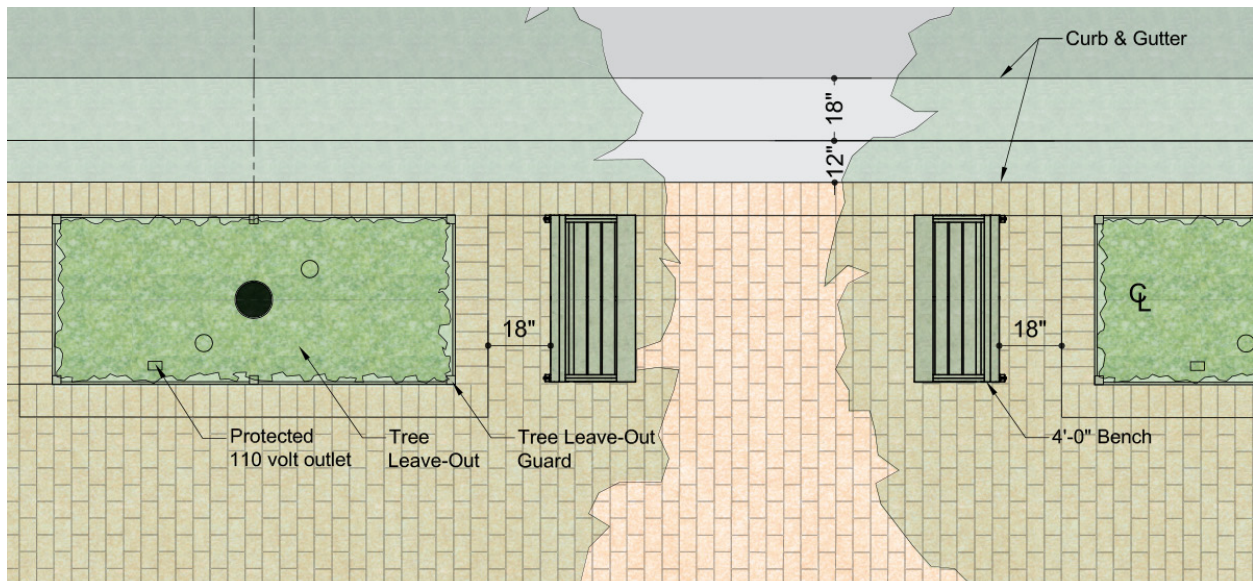
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U TYPICAL PARKWAY SECTION

Source: RVI



Ⓥ TYPICAL ALDRICH STREET DISTRICT STREET FURNISHINGS LAYOUT



Ⓦ TYPICAL ALDRICH STREET DISTRICT BENCH LAYOUT

STREET FURNISHINGS

Catellus will obtain from the City of Austin a “Master License Agreement Annexation Notice for Community Improvements” to account for the following special improvements within the public ROW that will be installed by the site developer; pavers, irrigation, electrical conduit and outlets, street trees, tree leave out guards, root barriers and drain line.

A site developer must obtain from the City of Austin a “Master License Agreement Annexation Notice for Private Improvements” to account for any special improvements within the public ROW beyond those items accounted for in the Community Improvements Annexation Notice, including: benches, waste and recycling bins, bicycle racks, drinking fountains and awnings or other such building improvements. Annexation Notices will be incorporated into the approved Mueller Master License Agreement [Ordinance No. 041202-57].

The Aldrich Street District street furnishings were selected to create a family of high-quality and robust elements that have a casual, modern and urban feel. Metal surfaces are typically silver – being of cast aluminum, galvanized or silver powder-coated finishes. The NCC will review furnishings on a site by site basis, taking into consideration the specific building program and needs.

Bicycle racks are Bola by Landscape Forms with a silver finish. These shall be placed perpendicular to the curb and centered with the street tree approximately three feet from the perimeter of a tree leave-out (Plan Detail V).

Tree guards are custom-fabricated, galvanized steel by Metalink Fence and Gate and will be powder coated black or silver, as illustrated at right and on the following



Landscape Forms Bola Bike Rack



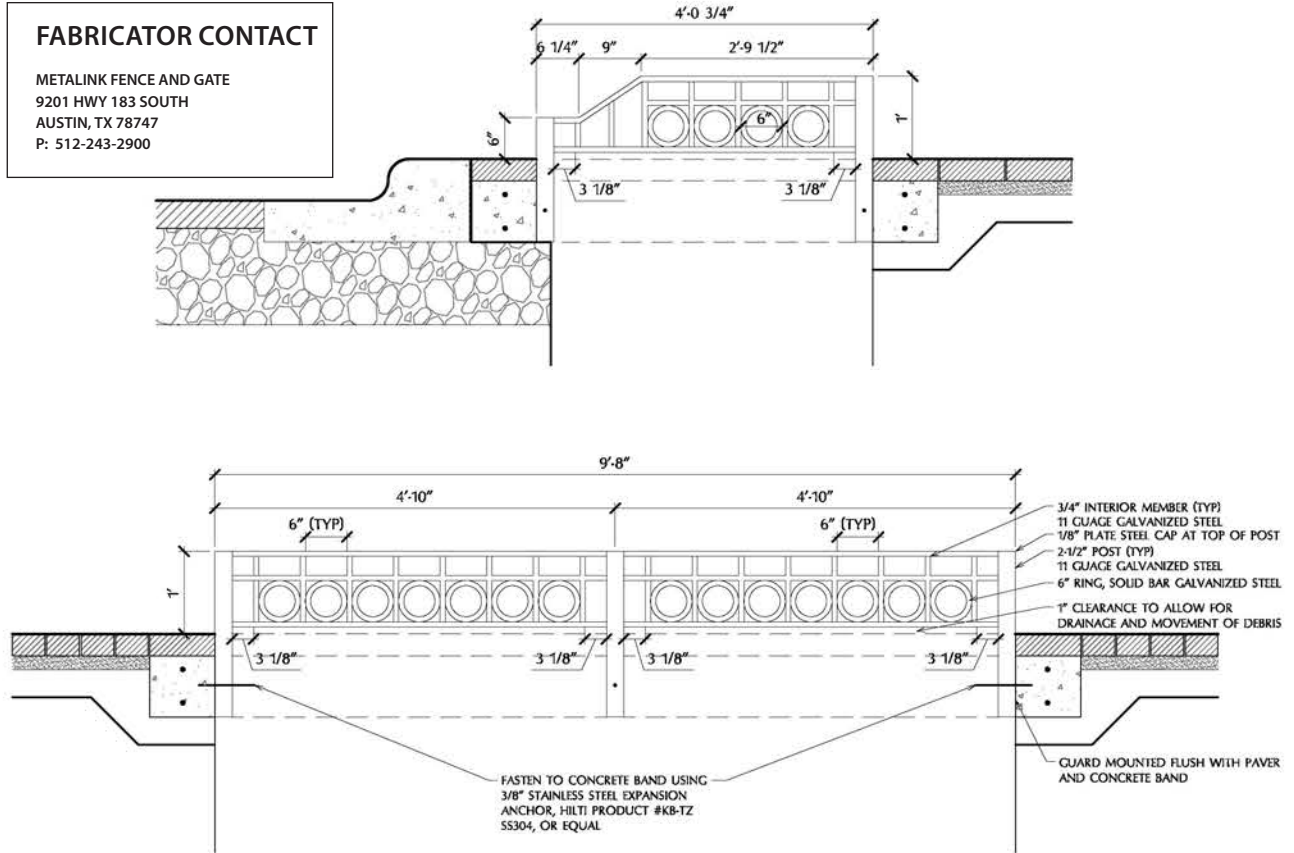
Tree Leave-Out Guards, customized for the Town Center



Landscape Forms Neoliviano Bench, custom 48" length

FABRICATOR CONTACT

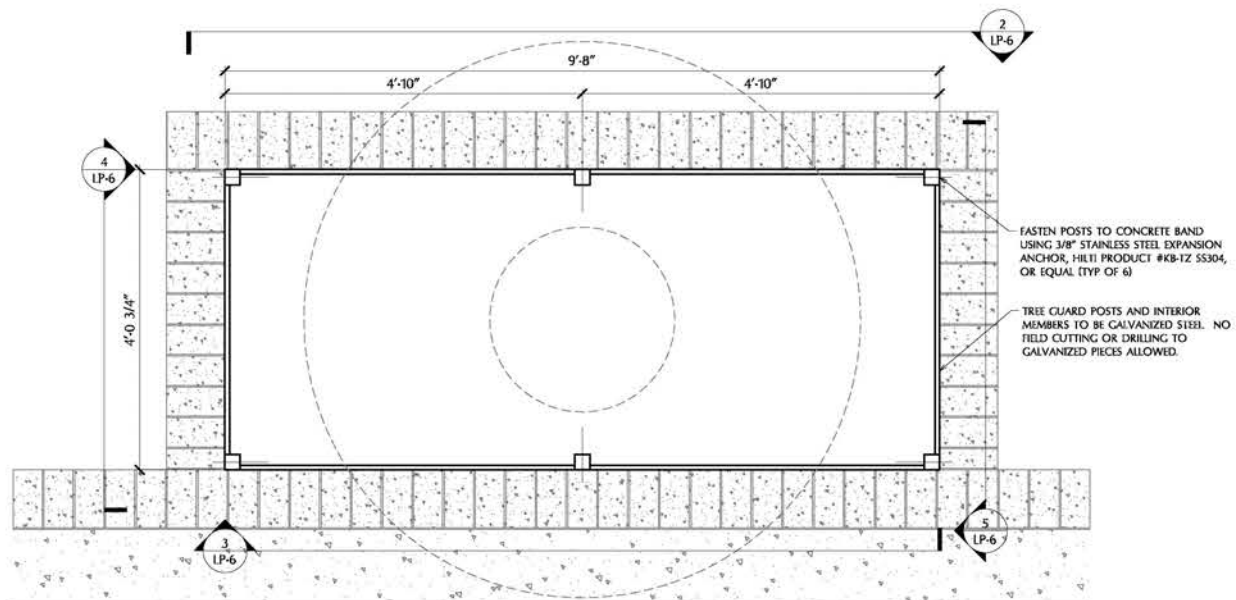
METALINK FENCE AND GATE
9201 HWY 183 SOUTH
AUSTIN, TX 78747
P: 512-243-2900



Z PERIMETER TREE LEAVE-OUT GUARD ELEVATIONS

Source: RVI

Note: Site Developers are responsible for field measuring, dimensions are approximate.



AA PERIMETER TREE LEAVE-OUT GUARD PLAN

Source: RVI



Third Street Promenade, Santa Monica

STREET LIGHTING

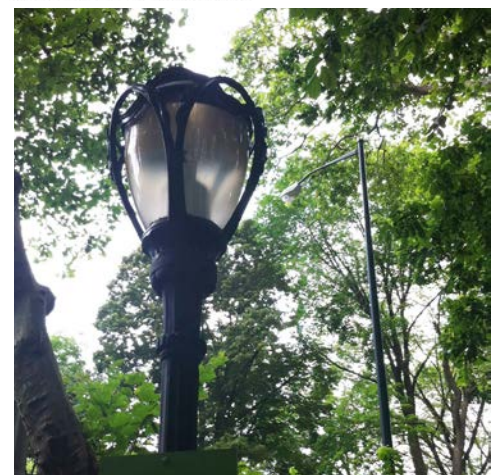
Initially, the public street lighting for the Aldrich Street District will be the “Town Lake” fixture supplied by Austin Energy. This 14-foot high, pedestrian-friendly pole with an acorn post-top has been used along all of Mueller’s narrower streets. The light source will be metal halide throughout this and other commercial areas of Mueller, which is a “whiter” light, affording better object and color rendition and depth perception.

Future LED Street Lights: Alternatively, Austin Energy is currently testing a higher-quality fixture with a LED source that has a similar look and scale as the Town Lake fixture, but which promises to be more energy-efficient fixture, with a much longer lamp life. This fixture also has the advantage of being a true, “full cut-off” fixture, which would be more “night sky friendly” than the existing Town Lake fixture. The pole spacing and foundations are similar between the two street lights, so it will be possible to retrofit any existing Town Lake fixture locations with this higher-performance fixture. Therefore, until which time there is a new fixture type that is acceptable to and available from Austin Energy, the Aldrich Street District will be equipped with the Town Lake pole with metal halide lamping.

Decorative Lighting: A waterproof convenience outlet shall be installed by the site developer within each tree leave-out so that trees may be outfitted with LED string lights. The site developer shall coordinate with Catellus and/or the Town Center Association or its equivalent (TCA) to determine the locations of required electric meters.



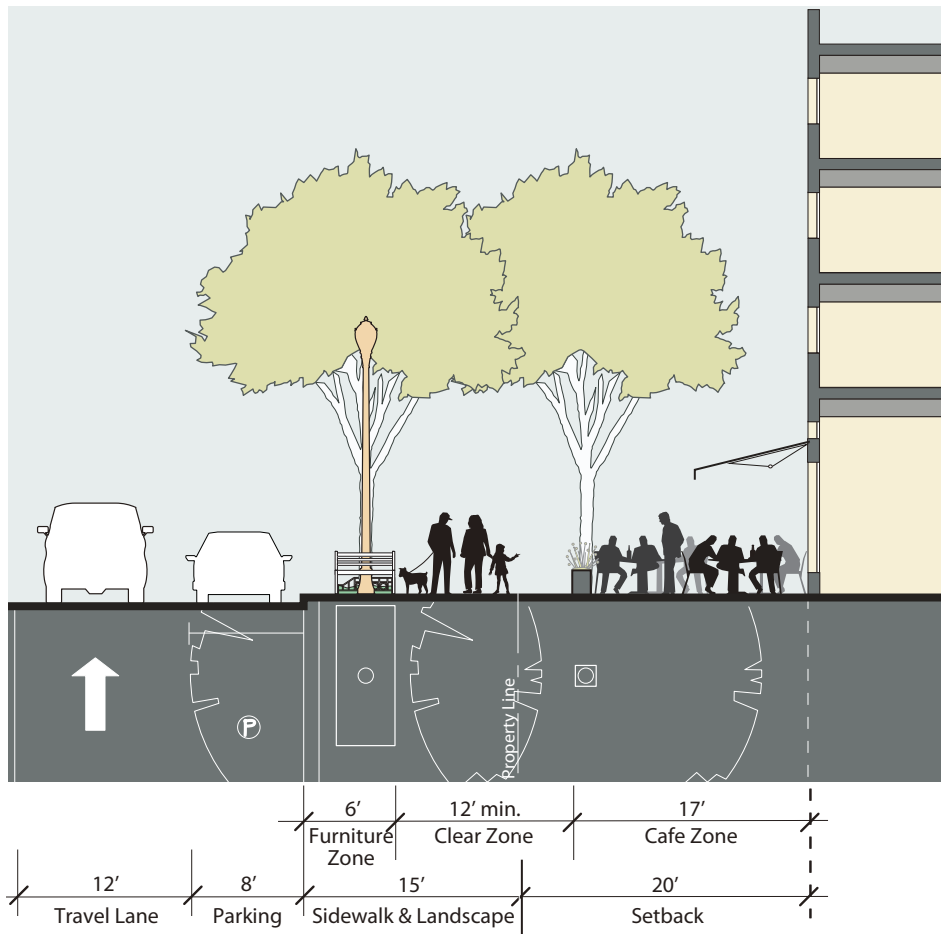
WFC I Utility Washington PostLite
Maximum Weight: 22.67 kg (50 lbs)
Maximum E.P.A.: 1.72 sq. ft.



An LED Full Cut-Off fixture is being tested by Austin Energy for use in the Aldrich Street District.



Third Street Promenade, Santa Monica



BB CAFE ON ALDRICH ST. PROMENADE SECTION

OUTDOOR CAFE ZONES

Outdoor dining is encouraged along all streets within Mueller's Aldrich Street District, and particularly on the promenade along the east side of Aldrich Street where buildings are set back by 20 feet. Additional building setbacks may be permitted at the discretion of the New Construction Council (NCC) for restaurants that require deeper café zones. The following provides some standards for the treatment of all café extensions within the Aldrich Street District:

Promenading Zone: On the Aldrich Street Promenade (i.e., the eastern side of the street), a clear unobstructed promenade zone shall be provided at a width of no less than 12 feet (Section BB). On all other street frontages, an unobstructed promenade zone of at least six feet wide shall be provided (Section CC).

Café Zone: On a typical street in the Aldrich Street District, where the sidewalk is 12 feet wide and a building is set back by three to six feet, the resulting café zone is three to six feet in width (Section CC). The wider sidewalks along both sides of Aldrich Street will allow for much wider café zones. On streets where the sidewalk is 12 feet or less, not including the service drive between Ragsdale St. and Philomena St., 50% of the ground floor shall be set back from the centerline by a minimum of three feet to create sidewalk extensions, opportunities for landscaping and provision for all building entries.

Permanent Improvements: Unless the site developer or a future building tenant or operator obtains approval by the NCC or the TCA, such party shall not construct any permanent improvements (such as barriers, trellises, structures, etc.) or make any modifications to the sidewalk area, street trees, furnishings, etc. Proposed improvements or sidewalk modifications will be reviewed on a case-by-case basis by the NCC and/or the TCA.

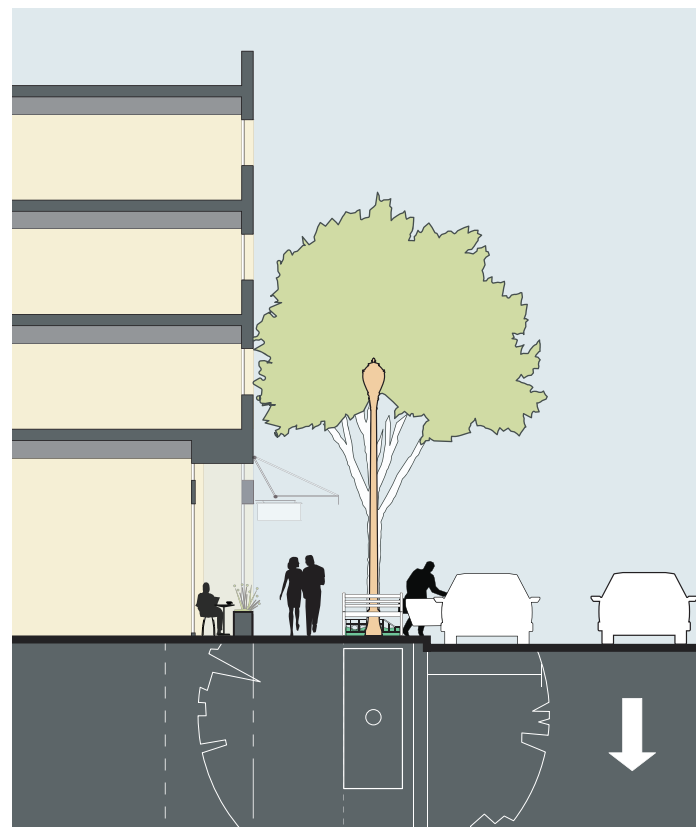
Curbside Zone: Café tables will be permitted within the curbside zone, between street trees, provided that no permanent improvements or barriers are constructed and that the required promenade zone is achieved.

Furniture Materials: Tables and chairs shall be of a high quality, suitable for exterior use, with metal, plastic and/or durable and weathering woods. All tables or chairs shall be movable; none will be permitted to be bolted or affixed to the sidewalk, unless approved by the NCC and/or the TCA. All furniture shall be commercial grade and manufactured or constructed for outdoor commercial use.

Table Size: Small round or square tables shall seat no more than four people, unless otherwise approved by the TCA and must comply with the clearance requirements described above. Round tables shall be no larger than 30 inches in diameter. Square tables shall be no larger than 36 inches wide. Tables and chairs within a single operator's café zone shall be of the same type, i.e., no mixing of different furniture types is allowed.

Umbrellas: Individual canvas or other non-vinyl umbrellas of a compatible design may be permitted in café extension areas, but shall not extend into the promenading zone. Umbrellas shall be made for outdoor commercial use subject to the approval of the NCC and/or the TCA.

Flower Boxes and Planters: Flower boxes or planters may be used to define the boundaries of the café seating area. To avoid blocking the patron's vision while seated, the combined height of the planters and live plants shall not exceed 40 inches from sidewalk grade. The



* 3' min. setback and Cafe Zone for 50% of Building Entry. All entrances shall be set back 3' min. from property line.

© MINIMUM BUILDING SETBACK ON 12'-0" SIDEWALK

boxes or planters shall be no greater in height than 30 inches and no wider than 24 inches at the base. Taller plants may be permitted depending on the location of the sidewalk café, as approved by the NCC and/or the TCA.

The flower boxes, planters, and storage bins shall be moveable and be made of a safe, durable and attractive material such as concrete, fiberglass, clay, wood or steel. All boxes, planters and planting areas must be planted with live plants year-round. The cafe owner shall be responsible for the prompt removal of all empty or poorly maintained planters or plantings.



Moveable planters define the boundaries of an outdoor cafe.

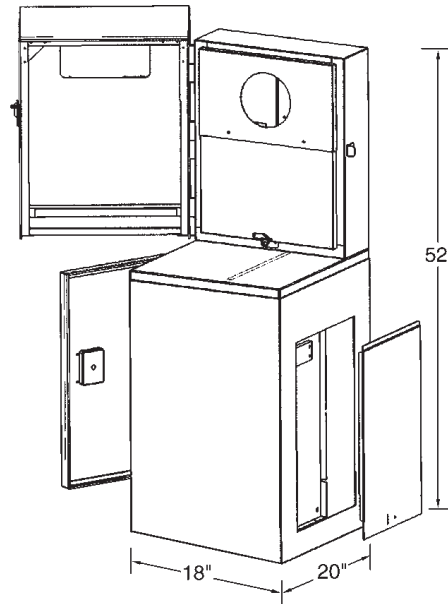
Menu Boards and Signs: Menu boards, both portable and wall-mounted, shall be subject to the City of Austin sign ordinance and the Mueller PUD and the Mueller Design Book standards, and shall be approved by the Signage and Storefront Committee of the NCC. Please see Appendix F1: Signage and Storefront Guidelines for Aldrich Street District.

Canopies and Projecting Awnings: Permanent fixed canopies shall be subject to NCC approval, and shall not be permitted to project within the public right-of-way. Fabric awnings that provide shade and color are encouraged, particularly high quality retractable ones that can be adjusted seasonally and throughout the day. Awnings will be permitted to encroach into the public right-of-way, subject to NCC and/or TCA approval, and a license agreement with the City of Austin. Using awnings for significant signage or logos is not permitted.

Portable Heaters and Misters: Portable heaters and misters are permitted subject to review and approval by the TCA.

Trash, Recycling and Compostables Receptacles: All trash, recyclables and compostables generated by the café shall be disposed of by the business in receptacles provided internal to the building or within the café zone. Any exterior receptacles shall of durable commercial grade materials and located against the building façade; no such receptacles will be permitted in the curbside zone.

Storage: Furniture may not be stacked or stored outside in setback areas or in the public right-of-way at any time, unless approved by the TCA. Café furniture shall not be secured to street lighting poles, trees or any other public street furniture.



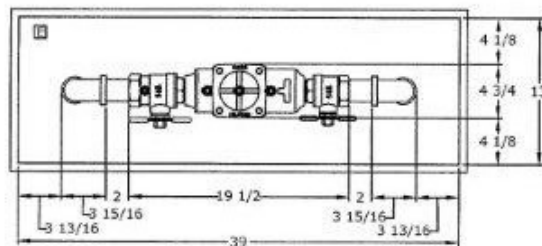
All meter pedestals available with AIC ratings of 22k, 65k and higher.

* Photocell, time clocks, lighting contactors and circuit breakers available factory installed.

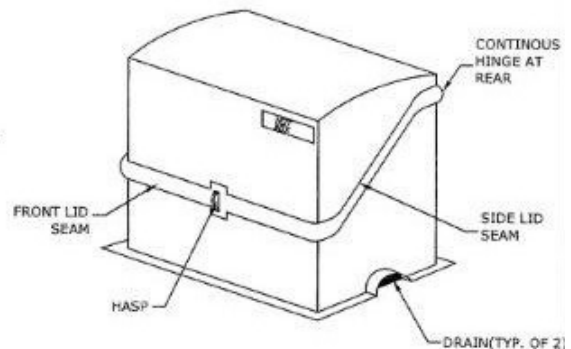
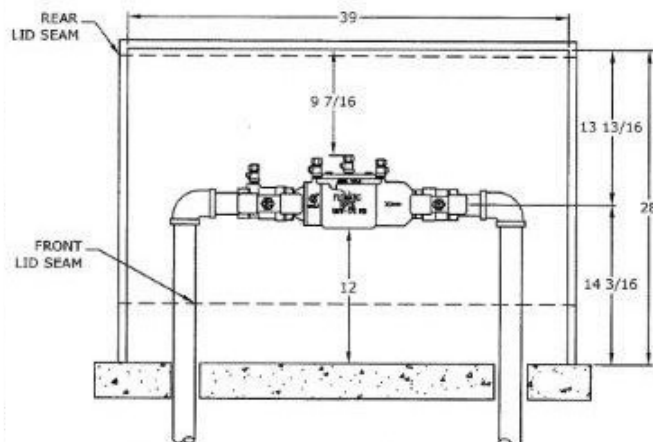
MPS-A16-10K* Metered Enclosure

- 100 amp meter/100 amp load center
- 16 pos. with main 1 phase

DD ELECTRIC METER ENCLOSURE: STRONG BOX COMMERCIAL PEDESTAL Source: V.I.T. Products, Inc.



1. ALL DIMENSIONS ARE IN INCHES.
2. INSIDE DIMENSIONS ARE 39" L X 13" W X 4" MINIMUM THICKNESS
3. RECOMMENDED SLAB SIZE IS 50" L X 24" W X 4" MINIMUM THICKNESS.
4. "E" WITHIN THE BOX INDICATES THE GENERAL LOCATION OF THE ELECTRICAL RECEPTACLE INSIDE THE ENCLOSURE. THE RECEPTACLE AND ELECTRICAL SERVICE TO THE ENCLOSURE ARE THE RESPONSIBILITY OF THE CONTRACTORS OTHER THEN HOT BOX.
5. THE ENCLOSURE IS DESIGNED AS FLIP TOP TO ASSURE EASIER ACCESS AND MAINTENANCE.
6. THE ENCLOSURE SHALL HAVE ONE 90W, 120V SINGLE PHASE HEAT TRACE CABLE.
7. THE ENCLOSURE SHALL BE A LB2 WHEN IT IS INSTALLED WITHOUT THE HEATER.



EE REDUCED PRESSURE ZONE (RPZ) UTILITY AND STAINLESS STEEL ENCLOSURE Source: HOTBOX. Drawing # 2DBQ-A11

SERVICES & UTILITIES

Electric Transformers: Transformers should generally be located along service alleys/streets, within or adjacent to parking garages or set back from the street substantially and screened, either with an enclosure or vegetation, as allowed by Austin Energy. Transformer pads and equipment may not be located facing (or visible from) the Aldrich Street ROW or its building setback areas. Site developers will be required to obtain approval from Austin Energy and Catellus for the appropriate numbers, sizes and final locations of transformers serving their sites. The NCC must also approve transformer locations and how they are screened.

Reduced Pressure Zone (RPZ) Devices: RPZs shall be located on the property owner side of the water meter, on private property and shall be encased by a stainless steel enclosure, such as the one depicted at left. (Detail DD)

Parking Pay Stations: These automatic, self-pay devices provide convenient payment for on-street parking and will be installed and operated by the City of Austin or its designee. Since 2016, the City has installed several of these in Mueller's Town Center as part of Mueller's Parking and Transportation Management District (PTMD) and will continue to add them as development continues in the Town Center. The pay stations will be located in accessible locations on each block-face of the Aldrich Street District (See Plan Detail C & I), on or near the sidewalk, or as determined by Catellus and the City of Austin, in coordination with Mueller's PTMD.

Drop-Off/Valet Zones: Such zones will only be permitted in the typical 8-foot parking zone along street curbs. No curb cuts or driveway drop-offs will be permitted.

Grease Traps: Grease traps shall typically be located along service alleys/streets if feasible.

On-Street Loading Spaces: Code-required loading spaces may be allowed in the eight-foot wide, on-street parking lane, with administrative approval by the City of Austin development review staff.

On-Street Trash Collection Spaces: If approved by the City, dumpsters or bins may be rolled into a special zone of the on-street parking area fronting a site for its trash/recycling collection, under the condition that this space is a dedicated, level area that will not allow the dumpsters to roll away from this designated location and that the container is removed from the street frontage in a timely manner.

INTERIM SIDEWALKS & STREETSCAPES

As the Aldrich Street District is implemented in phases, there will be periods of time when block frontages will be undeveloped and vacant. Continuity of pedestrian facilities during this period will be important from both a safety and convenience standpoint. Therefore, in advance of the final building construction and site development, temporary sidewalk and streetscape improvements may be provided by the master developer, Catellus, or by individual site developers, as convened by Catellus. The following are guidelines and standards for the interim conditions of such sites.

Temporary Sidewalks: As part of the infrastructure construction, Catellus may install a temporary, sidewalk - either decomposed granite or concrete - with a minimum width of five feet along all public street frontages, so that pedestrians are not compelled to walk in the roadway area during the interim phases of development of the Aldrich Street District. The temporary sidewalk will typically be located inside the public ROW, at the property line.

Landscaping: To the extent practicable, the temporary sidewalk will be set back from the face of the curb by seven feet to allow for the temporary placement of street trees. The tree may be planted in the ground with irrigation, or placed in a temporary, above-grade, irrigated planter. Temporary plantings are desirable, particularly in locations where the next phase of adjacent construction is not anticipated within six months of the completion of a property.

Construction Hoardings: Contractors and vertical developers involved in the construction of buildings shall be responsible for securing their own sites and in providing protection for pedestrians through the design of construction barricades or hoardings. Where possible, hoardings shall be constructed to provide safe passage of pedestrians on the same side of the street within the ultimate sidewalk zone, or within the parking zone. Where this is not possible, pedestrians shall be guided safely to the opposite side of the street through signage and barricades, acceptable to the NCC and to the City of Austin. Construction hoardings should be designed and treated to present a consistent image of quality, with graphics and information on upcoming development that promote the Aldrich Street District and Mueller. A coordinated design program for hoardings shall be developed and presented by Catellus to the NCC for its approval.

TYPICAL STREET SECTIONS

ALDRICH STREET DISTRICT STREET SECTIONS KEY MAP

A - Transit Boulevard

A1 - Mueller Boulevard (Simond to Philomena)

B - District Main Street

B1 - Aldrich Street Promenade (McBee to Philomena)

B2 - Aldrich Street (Simond to McBee)

C - Greenway Extension Street

C1 - Philomena Street (East of Mueller Boulevard)

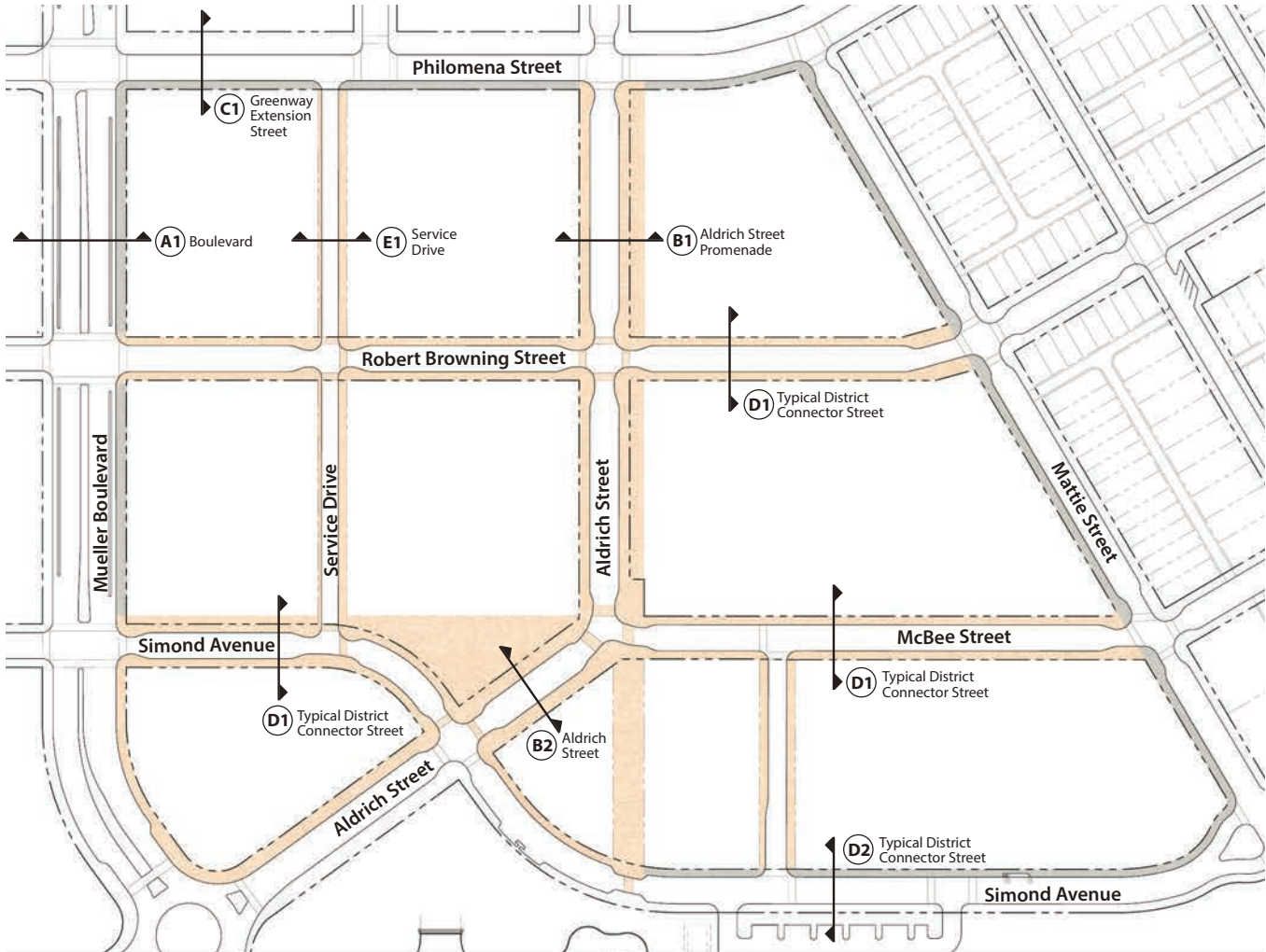
D - Neighborhood / District Connector Street

D1 - Mattie Street, Robert Browning Street, Simond Avenue, McBee Street

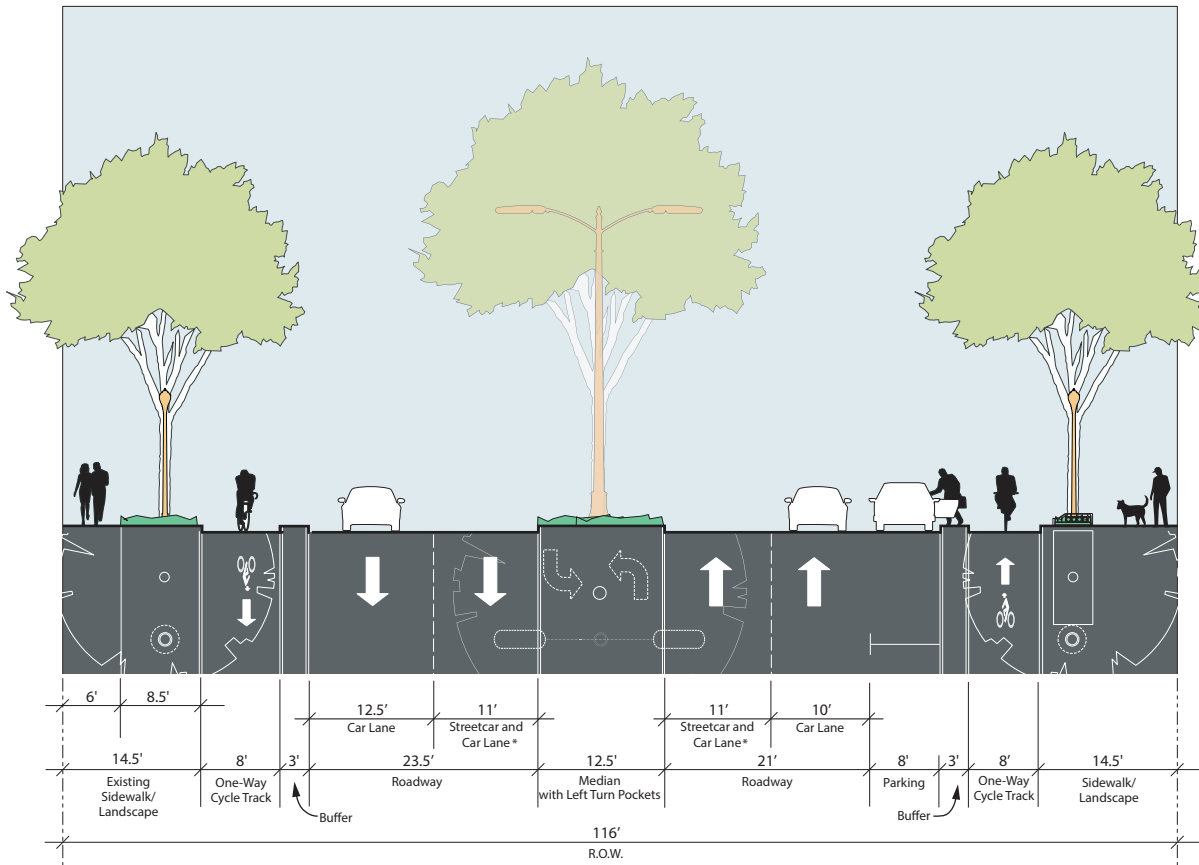
D2 - Simond Avenue (Aldrich to Mattie)

E - Service Drive

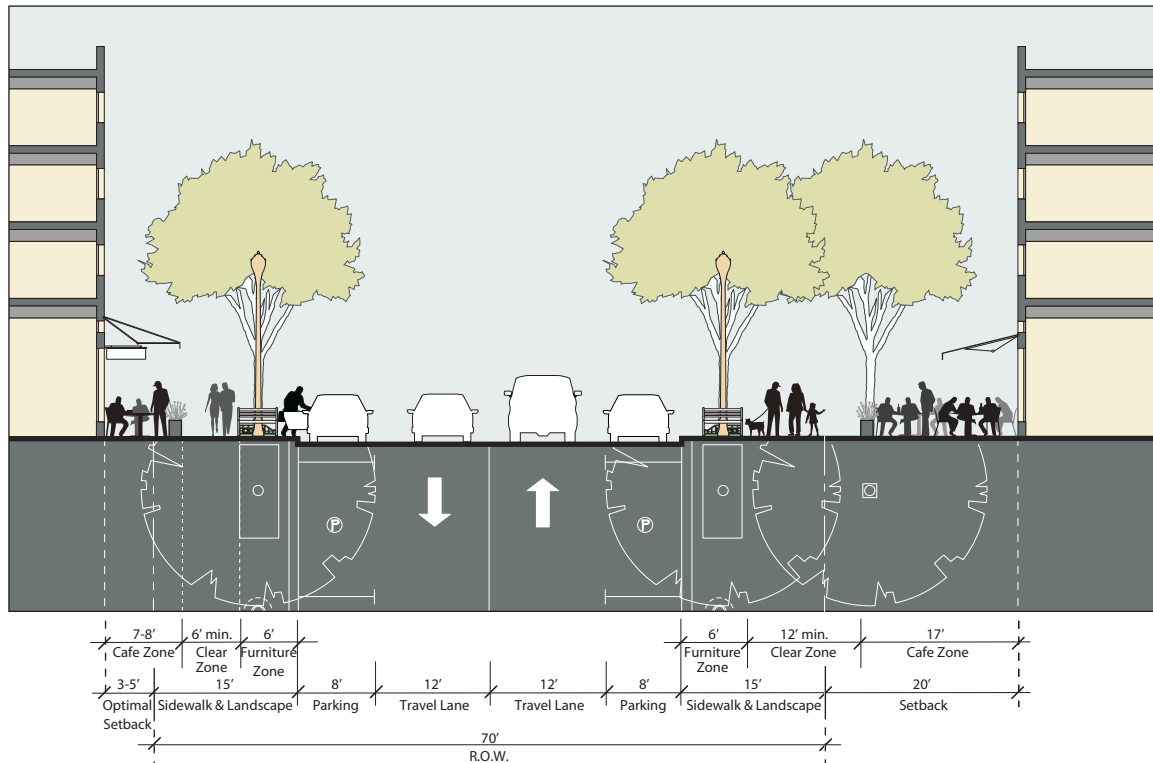
E1 - North South Service Drive (Simond to Philomena)



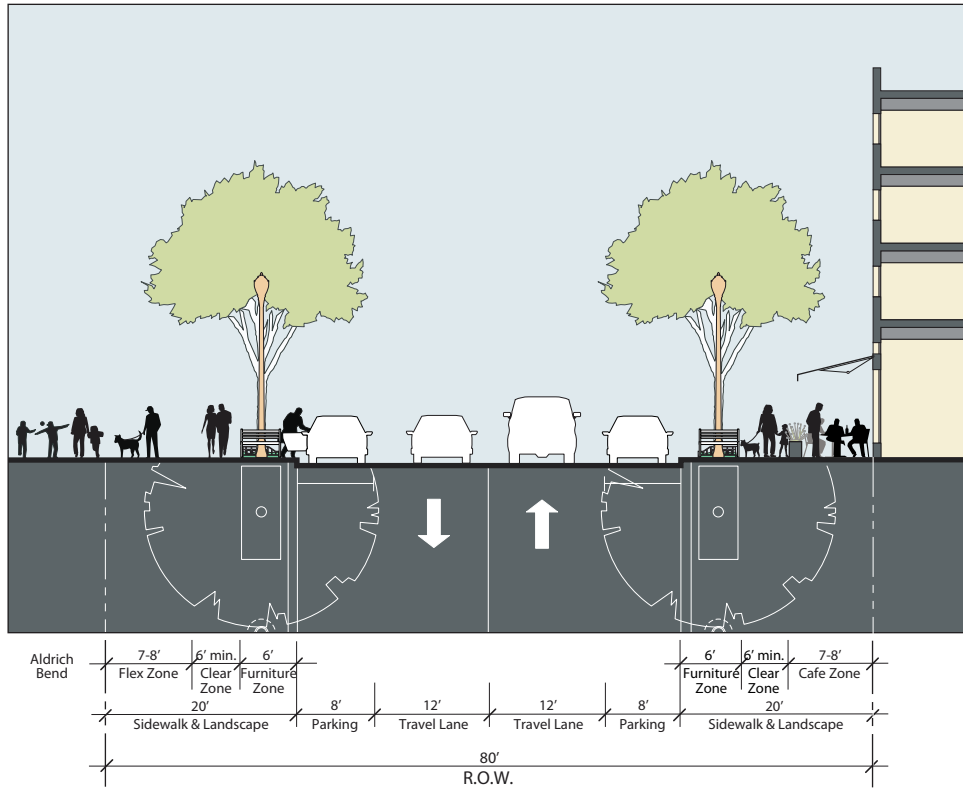
ALDRICH STREET DISTRICT STREET SECTIONS KEY MAP



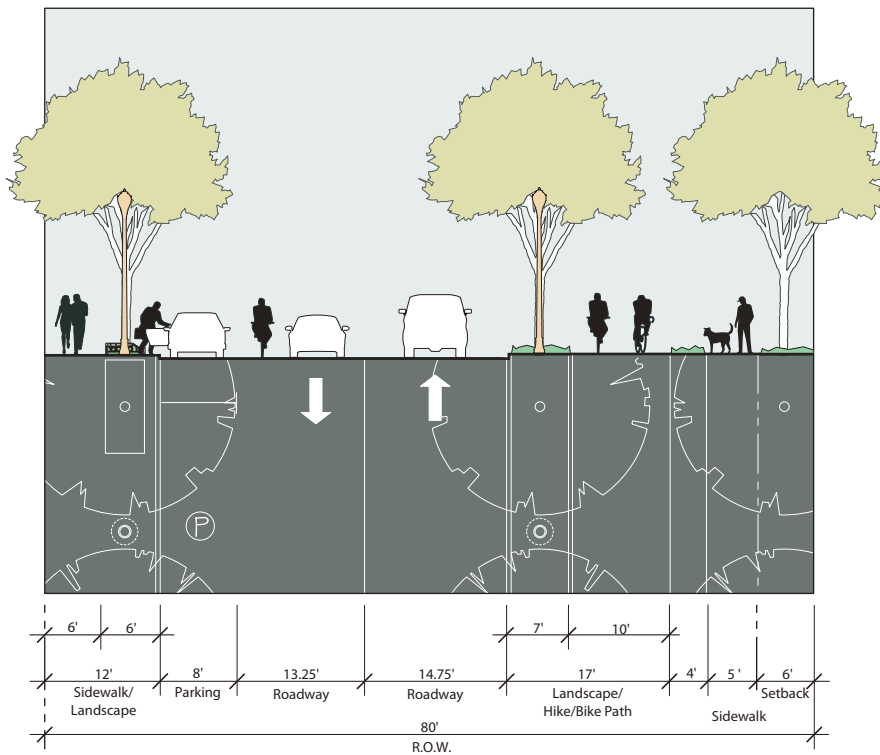
A1 - MUELLER BOULEVARD LOOKING NORTH (SIMOND TO PHILOMENA) * Note: Potential for High Capacity Transit



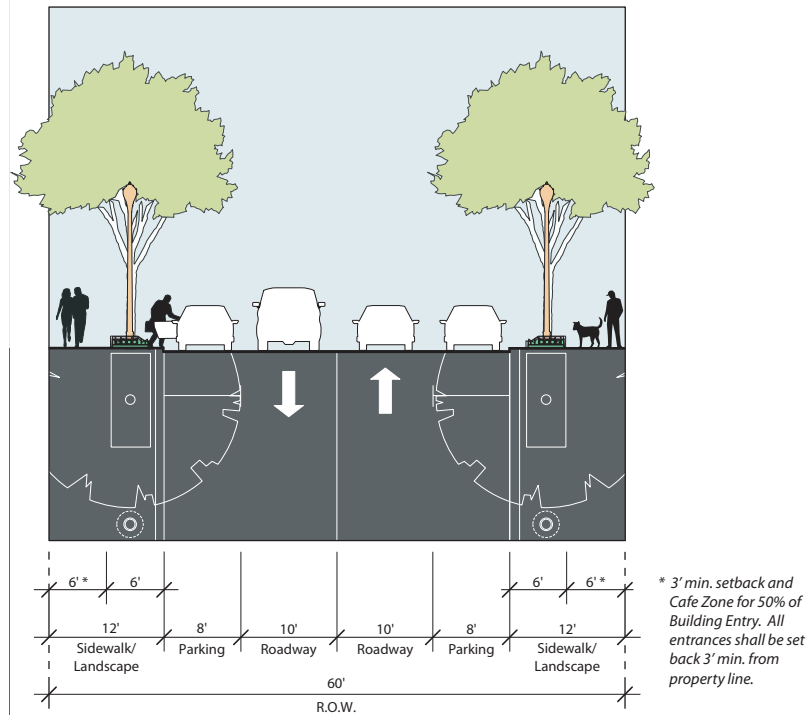
B1 - ALDRICH STREET PROMENADE (MCBEE TO PHILOMENA)



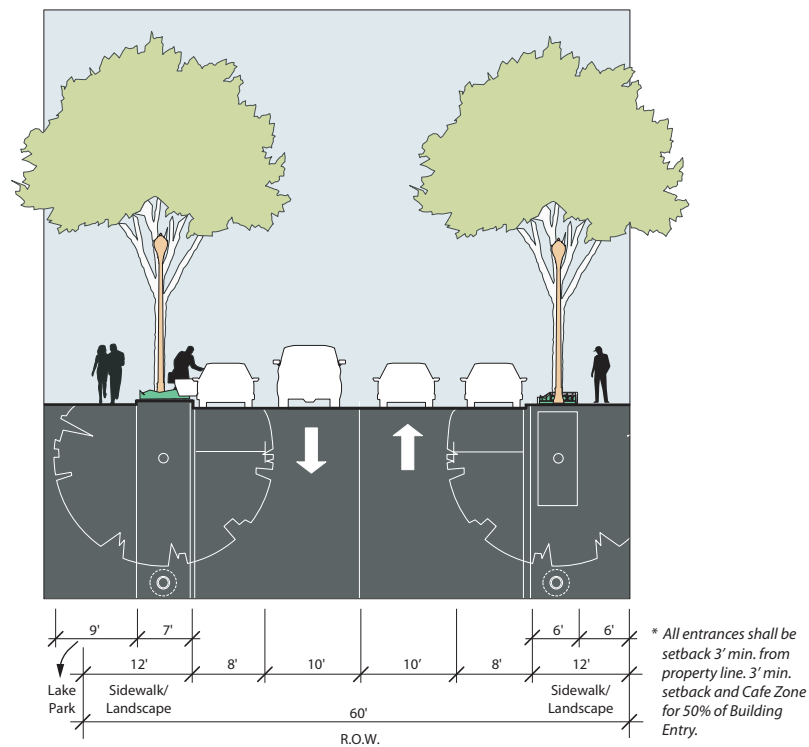
B2 - ALDRICH STREET (SIMOND TO McBEE)



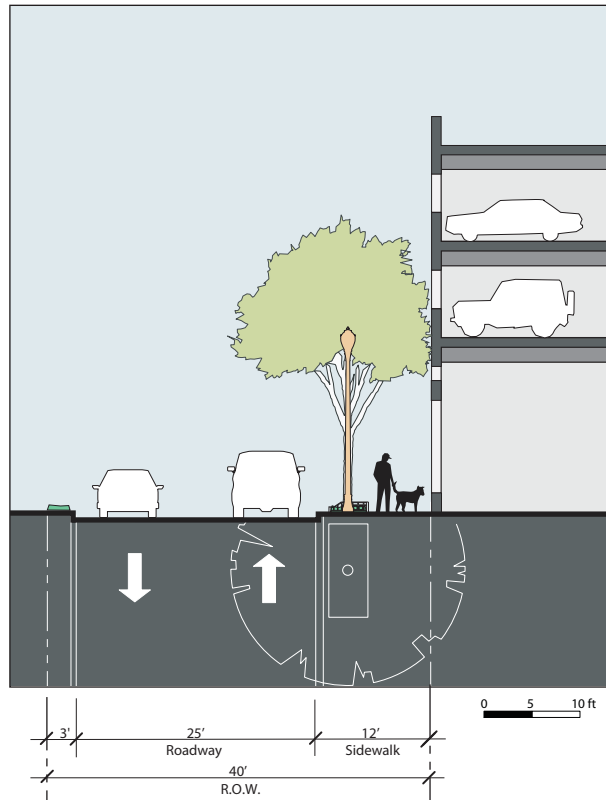
C1 - GREENWAY EXTENSION STREET - PHILOMENA STREET LOOKING WEST (EAST OF MUELLER BOULEVARD)



D1 - TYPICAL DISTRICT CONNECTOR STREET - ROBERT BROWNING STREET, SIMOND AVENUE, McBEE STREET



D2 - TYPICAL DISTRICT CONNECTOR STREET - SIMOND AVENUE LOOKING WEST (ALDRICH TO MATTIE)



E1 - SERVICE DRIVE (SIMOND TO PHILOMENA)



APPENDIX F

SIGNAGE AND STOREFRONT GUIDELINES

MUELLER

AUSTIN TEXAS

REVISED SEPTEMBER 2018

APPENDIX F: SIGNAGE AND STOREFRONT GUIDELINES

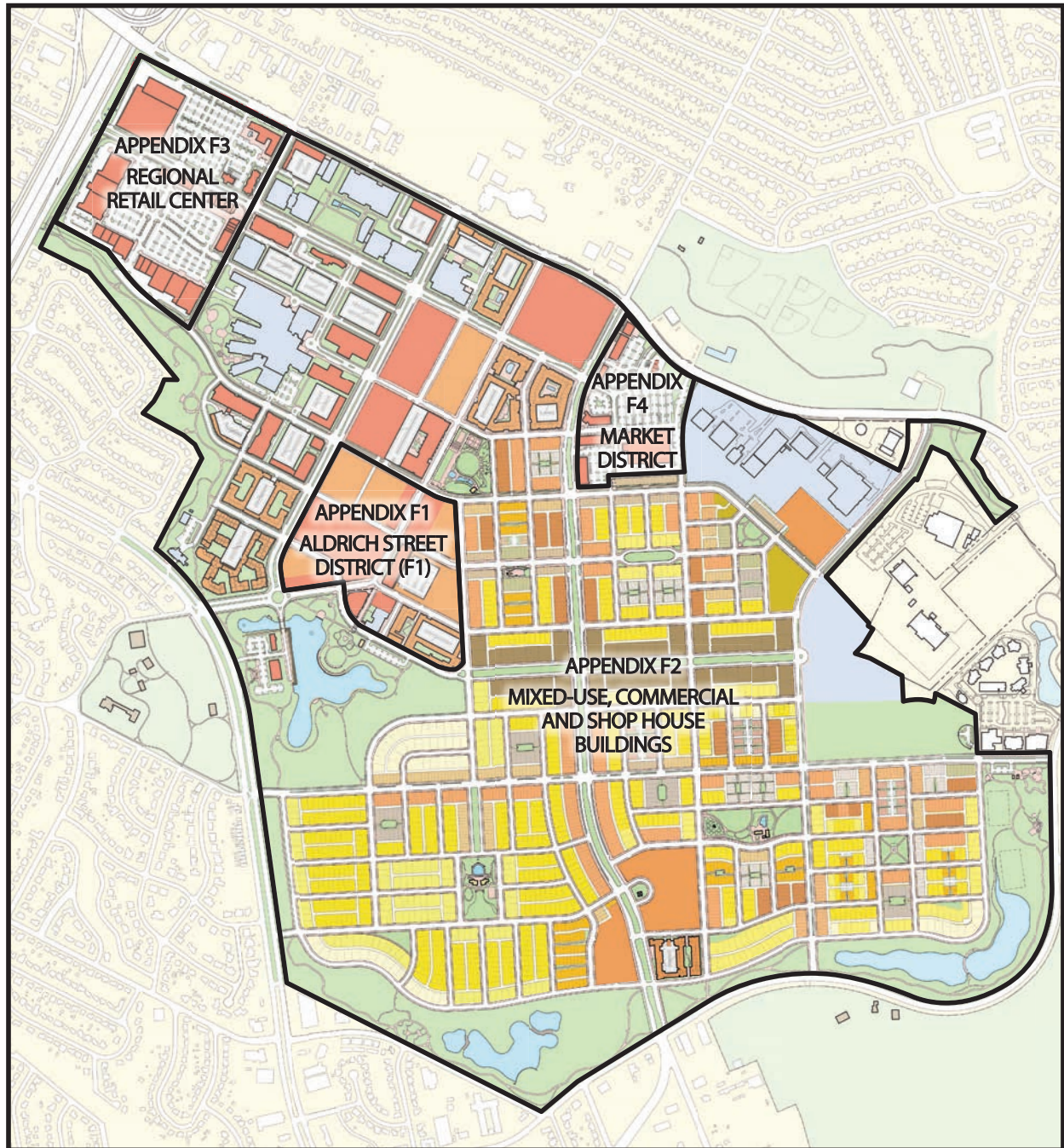
This appendix of the Design Book includes design standards and guidelines for signage throughout the community. The design regulations and submittal requirements for signage vary depending on their location within the development. Four signage sub-areas have been established as shown on the attached diagram:

- Appendix F1 provides the signage regulations for the Aldrich Street District;
- Appendix F2 provides the signage regulations for Mixed Use, Commercial and Shop House buildings throughout the neighborhoods, Town Center North and other mixed-use districts of the community;
- Appendix F3 describes the signage regulations within the Regional Retail Center; and
- Appendix F4 describes the signage regulations within the Market District.

The New Construction Council (NCC), or Modification Committee (MC) as applicable, is responsible for the review and approval of all signage within the community.

Please contact Mueller's Community Manager for more information on submittal procedures and fees related to the review process:

contactus@muelleraustin.com



Mueller Signage Appendices by District

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APPENDIX F1

SIGNAGE AND STOREFRONT GUIDELINES FOR ALDRICH STREET DISTRICT

MUELLER

AUSTIN TEXAS

REVISED MARCH 2018

Disclaimer:

This Signage and Storefront Guidelines Manual is envisioned as a dynamic document that will continue to evolve in response to changing conditions and circumstances. As such, it is anticipated that over the life of the community, the guidelines herein will be refined, waived or amended to incorporate new conditions, special opportunities and/or circumstances.

Neither the Master Developer nor the City has made or makes any representations or warranties of any kind or character, express or implied, with respect to this manual.

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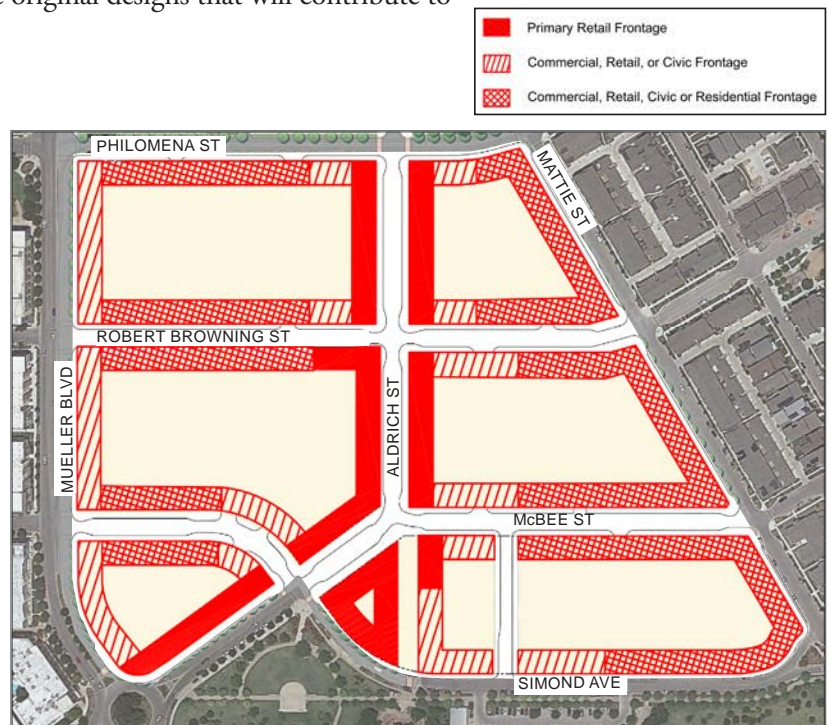


INTRODUCTION & PURPOSE

The Aldrich Street District is a vibrant mixed-use district at the heart of Mueller. Composed of higher density residential mixed-use and commercial office buildings and cultural institutions, the ground level streetscape is enlivened with restaurants, cafes, and retail shops. This document provides building owners and tenants within the District with guidelines for the design of storefronts and related signage. Guidelines for the overall building identity signage are provided in a separate appendix (F2) of the Mueller Design Book. The guidelines are aimed at encouraging distinctive storefronts that express the individualized personality of each business, that reinforce the pedestrian orientation of the district, and that fulfill Mueller's commitment to quality, durability and sustainability.

The intent of the standards is not to impose a single approach to the storefronts and signage, but rather to encourage diversity and authenticity in the spirit of Austin and Mueller. As such, the guidelines provide direction on encouraged and discouraged approaches, while the review process with the New Construction Council (NCC) offers opportunities for applicants to propose original designs that will contribute to the evolving character of the district.

Within the Aldrich Street District, the Mueller Design Book sets forth ground level use requirements for each of the street frontages within the area. Retail and restaurant storefronts will be concentrated most intensively along Aldrich Street between Mueller Boulevard and Philomena Street. Commercial storefronts are required along Mueller Boulevard, portions of the east-west streets within close proximity to Aldrich Street, and along the westernmost segment of Simond Avenue facing Lake Park.



Aldrich Street District

There are several types of frontages within the Aldrich Street District that could inform the design treatment of storefronts and signage. These include:

- Promenade frontages along the east side of Aldrich Street, characterized by a 30-foot-wide sidewalk and a double row of trees that will extend from Lake Park on the south to the Town Center Park on the north; this frontage will include numerous restaurants with outdoor cafes that can benefit the pedestrian and patron experience alike.
- The west side sidewalk of Aldrich Street of approximately 20 feet in width which may include a higher concentration of retail shops; and
- Mueller Boulevard and the east-west side streets with sidewalks of 12 to 15 feet in width, which may include smaller tenants and personal service providers.

The guidelines provided in this document are adopted as an integral part of the Mueller Design Book, administered by the NCC, which is responsible for approving all storefront and signage designs. The review process and submission requirements are provided herein. In addition to NCC approval, all storefront and signage designs shall be consistent with the Mueller PUD and related regulations within the City of Austin's Land Development Code. It is the responsibility of each owner or tenant to ensure that their proposed storefront and signage is consistent with the City's standards, and that all required City permits are obtained. This document and any approval provided by the NCC does not imply consistency with City regulations.

The guidelines are aimed at encouraging distinctive storefronts that express the individualized personality of each business.



In order to expedite review and approval, the NCC has established a Storefront and Signage Subcommittee, consisting of three members selected from its five voting members and representatives from the City of Austin. This Subcommittee shall meet as needed to review submittal packages outside of the regular monthly meeting of the full NCC.

NCC SUBMITTALS

The design submission will be completed as outlined below. No project will be approved until all construction documents and specifications are received and approved. Tenant construction shall proceed only on the basis of the construction drawings approved by the NCC. Changes made between approved construction drawings and actual construction will require resubmission and approval by the NCC. The NCC reserves the right to remove items built without approval at the building owner's expense.

A three-stage process of review is required as follows:

Orientation Meeting (optional): Prior to the start of any specific design it is recommended that tenants meet with representatives of the building Landlord and/or the NCC to discuss initial ideas and concerns and to raise any questions regarding the design guidelines or approval process. Tenants may bring inspiration images, brand images and sketches to convey the preliminary design concept.

(1) Preliminary Design: The purpose of this submittal is to provide the NCC with an initial concept plan that demonstrates conformance with the design guidelines. Drawings should be preliminary in nature while including sufficient information to describe the storefront and signage concepts with the following drawings:

- **Site Plan** identifying the project location with particular focus on the adjacent streetscape plan including street trees, lighting and furnishings; the drawing should identify topographical elevations of the sidewalk in relation to the finished floor elevation of the business at all of the exterior doorways.
- **Exterior Perspective View(s)** illustrating the intended storefront treatment (e.g., materials, colors, signage, exterior furnishings etc.) and its relation to the overall building facade and to any adjacent approved storefronts within the same building (see example next page);

Note: Overall 3D file to be maintained and distributed by building Landlord

- **Ground Level Floor Plans** describing the relationship of the interior and exterior elements of the design, including planned street trees and street furniture as provided by building Landlord;
Note: Building Site Plan to be maintained and distributed by building Landlord
- **Lighting Scheme Narrative**, including storefront, signage and interiors visible from ROW; and
- **Merchandising Strategy Narrative** with particular focus on the initial 10 feet of store visible from ROW.

(2) Final Design: The purpose of this review stage is to finalize the design including all materials and details. To be reviewed during a NCC meeting, the following materials and drawings shall be submitted:

The preliminary design submitted should include an overall view of the building.

- Memorandum describing response to conditions imposed by NCC on the Preliminary Design submittal, listed per drawing revised;
- Updated Site Plan and Ground Level Plan, fully dimensioned and notated;



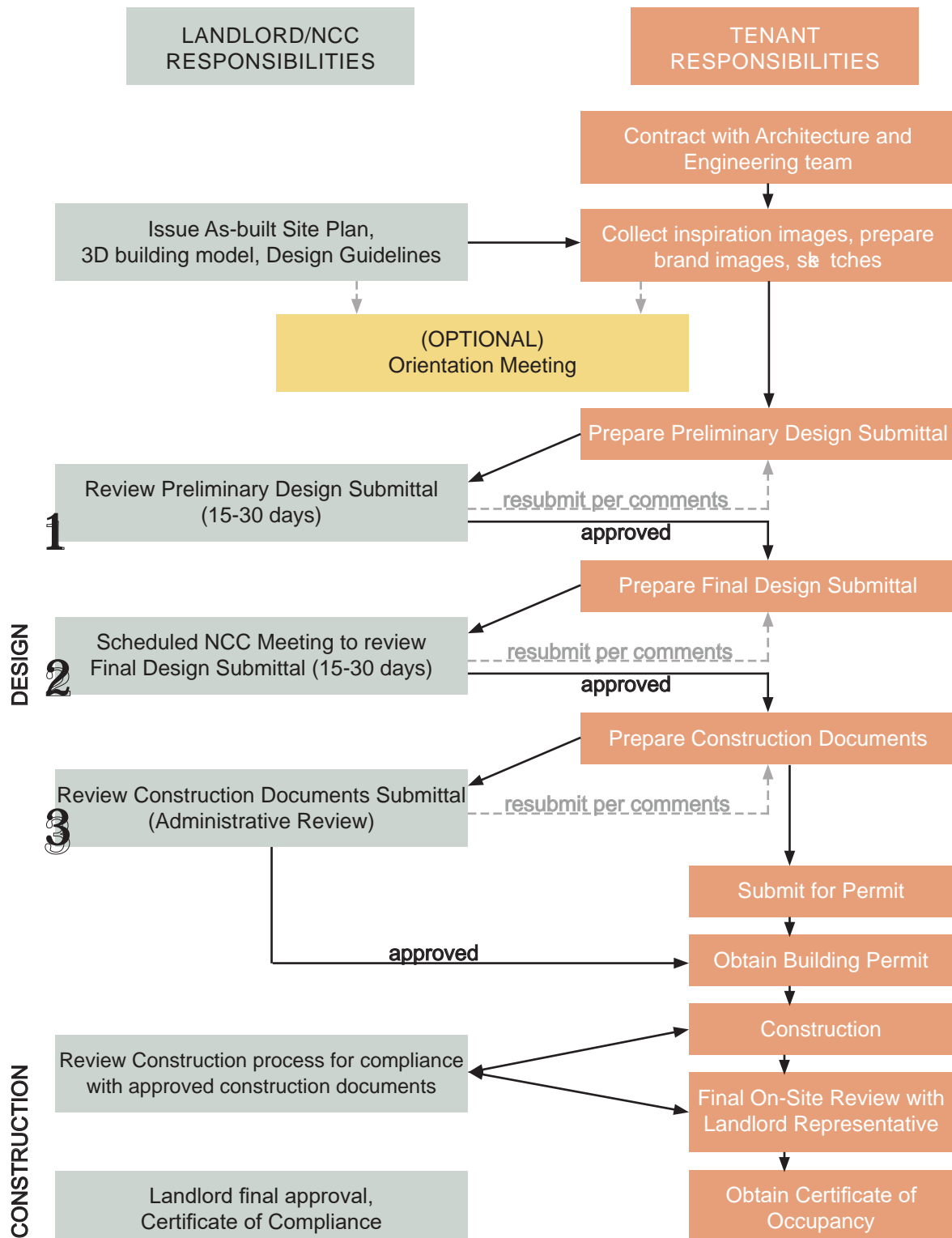
- Updated overall building and individual tenant perspective drawings depicting current storefront design and treatment;
- Dimensioned storefront elevations, depicting all materials and signage locations;
- Storefront wall sections and key details (attachments, awnings, etc.);
- Signage drawings (primary, secondary, window, blade, etc.) and details;
- Physical materials board, including actual material samples and colors;
- Exterior lighting plan with fixture cut sheets;
- Dimensioned railing/planter sections and key details; and
- Dimensioned exterior furniture plan and cut sheets.

(3) Construction Documents: The purpose of this review stage is to confirm that the project will be constructed, consistent with the NCC approved Final Design. The applicant shall submit all construction documents pertaining to the storefront and signage, along with a memorandum describing the response to conditions imposed by the NCC on the Final Design submittal.

The final design should include perspective drawings depicting storefront design and treatment.



SUBMITTAL PROCESS



Subject to verification that submittal is complete.

GENERAL GUIDELINES

Create captivating storefronts that are open and inviting. Each design should showcase the tenant's unique brand identity and embrace the materials, craft and details that reinforce their message. The streetscape will celebrate the diversity of design that Austin embraces, from refined minimalism to bootstrapped grittiness.

The following guidelines are intended to provide inspiration for designs to be reviewed by the NCC.



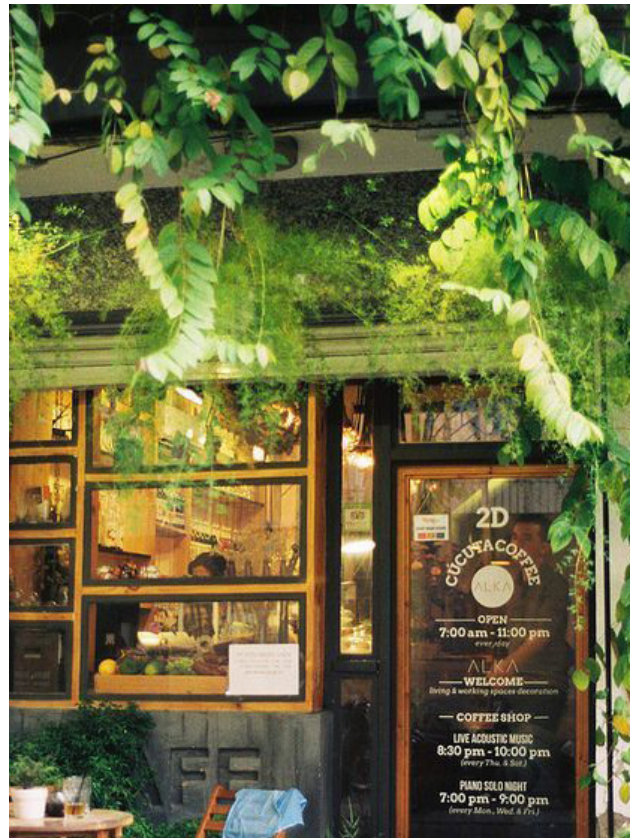


RESTAURANT STOREFRONT

Restaurants are where the neighborhood comes to gather and are critical to the vitality of the streetscape.

Encouraged:

- Strong entry, sense of arrival
- Contributes to street activity
- Strong indoor/outdoor connection
- Shaded seating with thoughtful, welcoming furniture selections
- High quality materials - exterior grade tiles, natural stones, painted and polished metals, finished woods, glass and translucent materials
- Details carefully designed and executed
- Unique forms
- Integrated landscaping
- Screening for any exposed equipment
- Flush threshold at entry, ramps strongly encouraged to be interior to storefront.
- Thoughtful lighting strategy (refer to Lighting section)



Encouraged



Encouraged



Discouraged:

- Materials that are determined to be less durable, aesthetically incompatible with adjacent tenant or overall building finishes according to the NCC
- Anodized or stock color storefront without added detailing
- Medium Density Fiber (MDF) Board panels
- Painted drywall
- Overhead coiling doors or grilles
- Dark tinted solar film



RETAIL STOREFRONT

Encouraged:

- High ratio glass/solid to encourage views inside
- Clear glass (minimal or no tint, limited by building code)
- High quality materials - exterior grade tiles, natural stones, painted and polished metals, finished woods, glass and translucent materials
- Details carefully designed and executed
- Study solar orientation - design shading elements and lighting to respond to changing conditions.
- Consider materials and orientation to reduce glare and take advantage of sunlight and shadow throughout the day.
- Dynamic, three-dimensional storefront
- Strong brand concept
- At entry, ceiling to be hard lid or exposed to building structure; ceiling heights shall not be lower than top of storefront glazing.
- Provide durable floor treatment (stone, polished concrete, wood, tile, recessed walkoff mat).
- Flush threshold at entry, ramps strongly encouraged to be interior to storefront to improve pedestrian experience.
- Thoughtful lighting strategy (refer to Lighting section)
- Thoughtful window coverings, to be reviewed and approved by NCC Subcommittee



Encouraged



Encouraged



Discouraged:

- Materials that are determined to be less durable, aesthetically incompatible with adjacent tenant or overall building finishes according to the NCC

At exterior:

- Anodized or stock color storefront without added detailing
- Medium Density Fiber (MDF) panels
- Painted drywall
- Overhead coiling doors or grilles
- Dark tinted or reflective solar film

At entry:

- Linoleum tiles, vinyl flooring, carpet
- Slat walls, plastic laminate fixtures, grid displays, corkboard, pegboard
- Excessive use of mirrors
- Acoustical tile



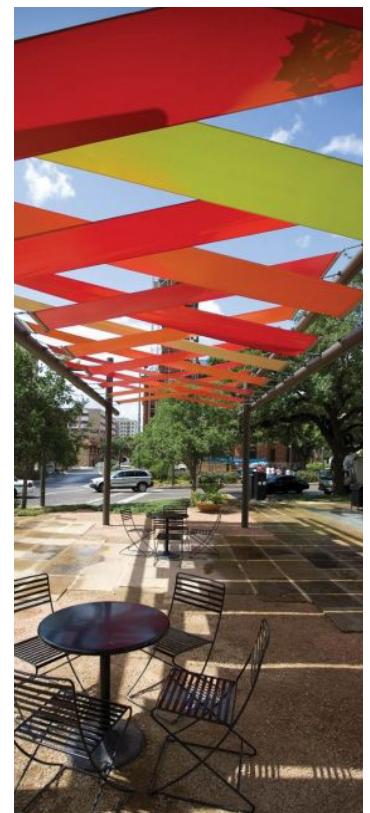
AWNINGS/CANOPIES

Encouraged:

- 8'-0" min. clear above sidewalk
- Projection depth proportional to width of sidewalk
- 3:12 max. slope
- Simply shaped - flat or single slope
- Sprinkler coverage if required by building type and awning construction
- Consider location, proportion, dimensionality, finishes and illumination.
- If cloth, limit to one or two colors.
- Retractable
- Refer to Aldrich Streetscape manual for complimentary guidelines. If there is a conflict between these guidelines, the NCC will determine design compliance.

Discouraged:

- Complex awning shapes including: elongated dome, dome, quarter round
- Closed sided awnings
- Vinyl signage on awnings



Encouraged



RETAIL LIGHTING

Appropriate and effective interior and exterior lighting is the single most important factor for enhancing the overall appeal of retailers, as well as improving their sales.

Encouraged:

- Illuminate prime merchandise with effective, quality fixtures.
- Brightly illuminate display windows to compensate for direct sun and attract attention in the evening.
- Install the best lighting you can afford.
- Consider natural light in lighting strategy.
- Reinforce brand identity and highlight signage.
- Consider City of Austin full cut-off and fully shielded regulations.
- Use thoughtful design to avoid overlighting.

Discouraged:

- Fluorescent lamps in customer areas
- Color temperature over 4000k



RESTAURANT LIGHTING

Appropriate and effective interior and exterior lighting is the single most important factor for enhancing the overall appeal of restaurants, as well as improving their sales.

Encouraged:

- Accent storefront design, texture and graphics with lighting.
- Design lighting schemes for daytime and night time.
- Use mixture of different types and scales of light fixtures.
- Install the best lighting you can afford.
- Consider light requirements for all areas of customer experience visible from streetscape, including ceiling, wall and tabletop.
- Consider how desired mood of space and dining experience can be affected through lighting design.
- Reinforce brand identity and signage.
- Consider City of Austin full cut-off and fully shielded regulations.
- Use thoughtful design to avoid overlighting.

Discouraged:

- Fluorescent lamps in customer areas
- Color temperature over 3500k



PATIO

Encouraged:

- High quality commercial and exterior grade furniture
- Wait stations to be integrated into overall design.
- Decorative lighting (refer to Lighting section)
- Integrated landscaping
- Shaded seating with thoughtful, welcoming furniture selections
- Diverse range of seating types: lounge furniture, bar height, counter height, banquettes, community table
- Provide interior storage for off-season furniture and equipment: heaters, umbrellas, etc.
- Furnishings and umbrellas must be approved by NCC.
- Conceal gas lines and electrical conduit.
- Refer to Aldrich Streetscape manual for street dimensions and complimentary guidelines. If there is a conflict between these guidelines, the NCC will determine design compliance.

Discouraged:

- Plastic wind barrier or temporary tent



PATIO RAILING/BARRIER

Encouraged:

- Provide plans and sections showing railing or barrier placement.
- Railing or barrier design must complement storefront design.
- Barrier to encourage interaction with sidewalk.
- Barrier materials to be durable and architectural - wood, stone, metal, concrete, glass.
- Creative railings that incorporate landscaping, lighted elements, screen elements
- Thoughtful design to avoid interference with street trees

Discouraged:

- Moveable railings



SIGNAGE

Signage should be well-designed and pedestrian scaled.

Sign hierarchy: Each tenant is allowed to install one primary sign and two secondary signs, as follows:

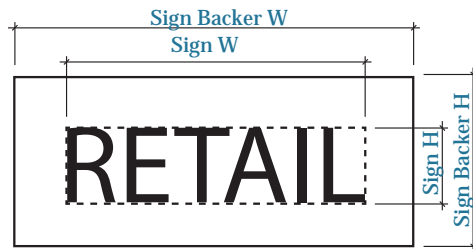
- Primary - (1) wall-mounted sign per street fronted (e.g. corner sites allowed wall signs on each facade)
- Secondary - (1) blade sign
- Secondary - (1) wall-mounted plaque or window/door-mounted sign
- Secondary - (1) 3D sign - kinetic, iconic, thematic signs encouraged; mounted to awning or storefront

Size limits:

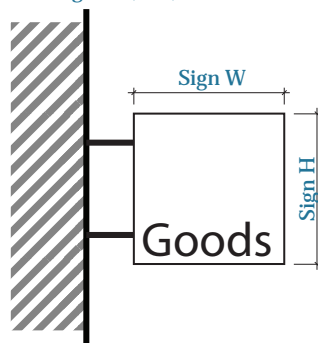
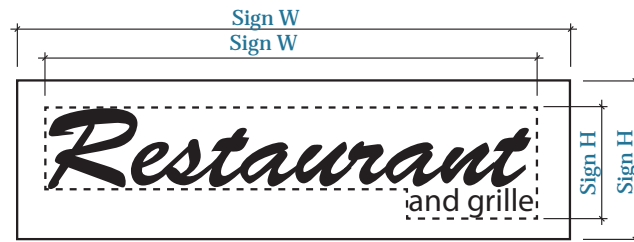
- Wall-mounted sign - max. 1 s.f. per linear foot of storefront frontage, defined by limits of tenant lease line (e.g. a 30-foot-wide storefront may have a sign up to 30 s.f.).
- Blade sign - max. 4 s.f.
- Wall-mounted plaque - max. 3 s.f.
- Window/door-mounted sign - 40% max. of glass space on principle entry door
- 20% max. of storefront window area
- 3D sign - proportional to storefront, reviewed case-by-case

Refer to diagrams on next page for sign measurement guidelines.

SIGNAGE DIMENSIONS

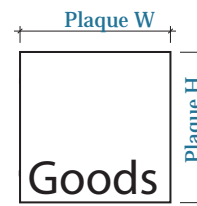


Allowable sign sf = Sign W x Sign H
If backer is provided, Sign Backer W (& H) may not exceed 110% of Sign W (& H)



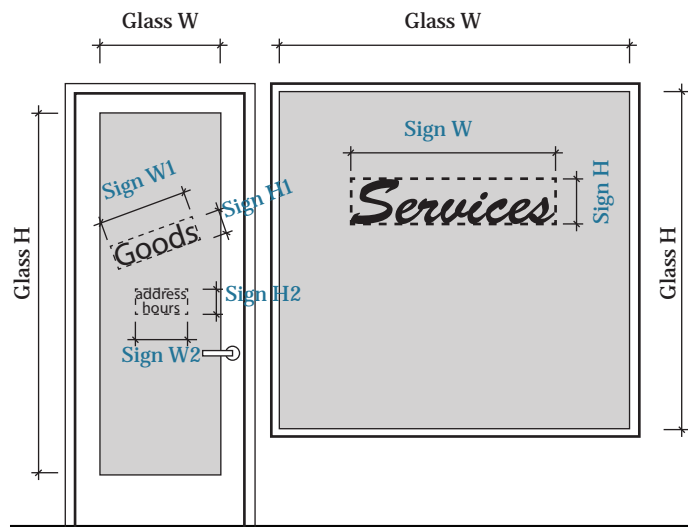
Allowable sign s.f. = Sign W x Sign H

Blade Sign



Allowable plaque s.f. = Plaque W x Plaque H

Wall Plaque



Window
$$\frac{\text{Sign W} \times \text{Sign H}}{\text{Glass W} \times \text{Glass H}} = 20\% \text{ max.}$$

Door
$$\frac{(\text{Sign W1} \times \text{Sign H1}) + (\text{Sign W2} \times \text{Sign H2})}{(\text{Glass W} \times \text{Glass H})} = 40\% \text{ max.}$$

Window/door-mounted sign

Note: The NCC (or its designated Subcommittee), at its sole discretion, may require the Owner to remove temporary or permanent signage or temporary displays of merchandise, if it is found to be offensive, misleading, not aesthetic or generally, a downgrading of the public view of experience from the public right-of-way, or if it is not in compliance with these design guidelines.



WALL-MOUNTED SIGNS

Encouraged:

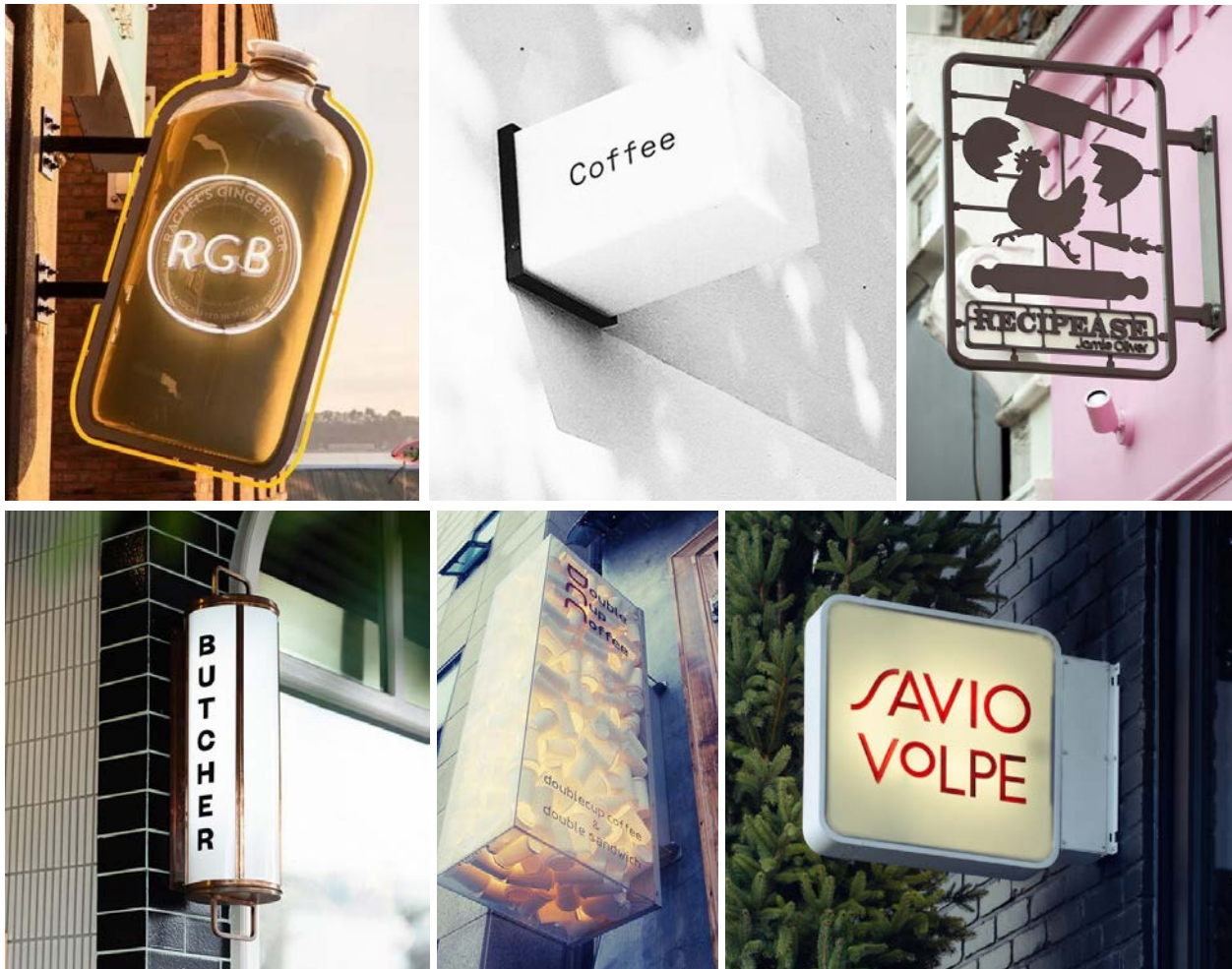
- Sign mounted at least 8'-0" and no more than 16'-0" above sidewalk.
- Front face of sign shall not project more than 6" from face of building.
- Prevailing letter height 8" to 12" tall
- Content shall be limited to business logo and/or name of the business.
- High quality materials - painted and polished metals, finished woods, glass and translucent materials, highly durable plastics
- Thoughtful lighting: illuminated, neon, halo
- Signage to be conceived as an integral part of the storefront design.
- Signage to be held back from adjacent tenant lease line min. 4'-0".
- Signage to be fabricated and installed by signage fabrication company.

Discouraged:

- Electronic signs, flashing or face-illuminated signs
- Permanent advertising or promotional signage
- Noise producing signs
- Internally lit plastic box signs



Encouraged



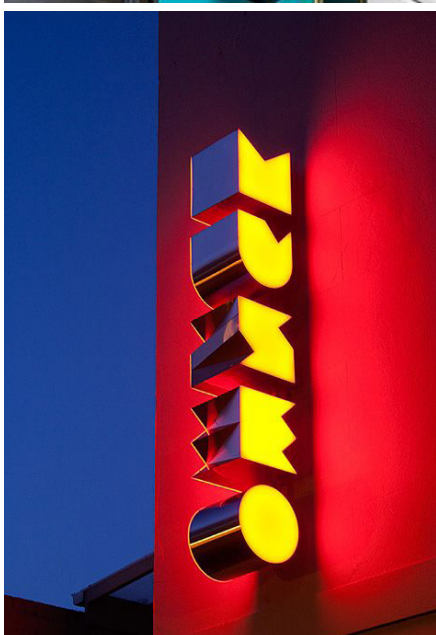
BLADE SIGNS

Encouraged:

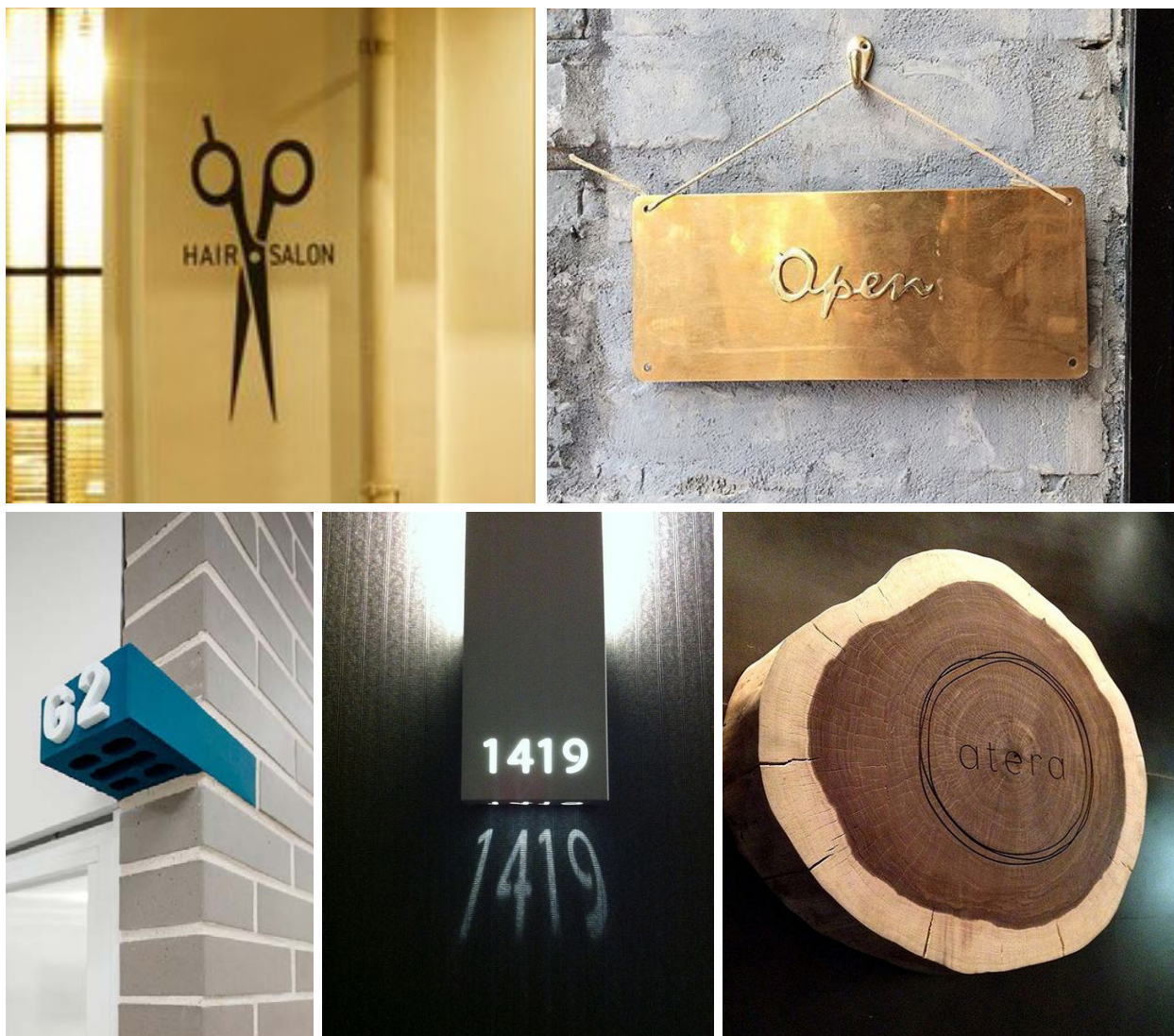
- Sign mounted at least 8'-0" and no more than 16'-0" above sidewalk.
- Front face of sign shall not project over property line, unless approved by NCC and City of Austin.
- Signage placement to consider neighboring tenants and ensure that signs are spaced min. 15'-0" apart.
- Content shall be limited to business logo, name of the business, principal product or service offered and/or iconographic shapes that describe the business.
- High quality materials - painted and polished metals, finished woods, glass and translucent materials, highly durable plastics
- Signage to be conceived as an integral part of the storefront design - may be affixed to underside of awning or building face/column.
- Signage to be fabricated and installed by signage fabrication company.

Discouraged:

- Electronic signs, flashing or face-illuminated signs
- Permanent advertising or promotional signage
- Noise producing signs



Encouraged



WALL-MOUNTED PLAQUES

Encouraged:

- Sign mounted at least 4'-0" and no more than 8'-0" above sidewalk.
- Front face of sign shall not project more than 3" from face of wall.
- Content shall be limited to business logo, name of the business, principal product or service offered and/or iconographic shapes that describe the business.
- High quality materials - painted and polished metals, finished woods, glass and translucent materials, highly durable plastics
- Signage to be fabricated and installed by signage fabrication company.

Discouraged:

- Electronic signs, flashing or face-illuminated signs
- Permanent advertising or promotional signage
- Noise producing signs



WINDOW AND DOOR-MOUNTED SIGNS

Encouraged:

- Hand-painted lettering or graphics applied by a professional signage company
- Content shall be limited to business logo, name of the business, address of the business, principal product or service offered, days of operation, phone number and/or website address. Simple graphic patterns and iconography that reinforces tenant's brand. Must comply with size limits and be approved by NCC or its designated Subcommittee.

Discouraged:

- Vinyl lettering or graphics, except for temporary installations



3D SIGNS

Encouraged:

- Kinetic, dynamic and iconographic signs that reinforces tenant's brand - must be proportional to storefront and be approved by NCC.



SIGNAGE - EXTERIOR MENU BOARD

Encouraged:

- Integrated lighting
- Ability to customize for specials
- Integrated into overall storefront and patio design
- Digital display screens must be approved by NCC.

Discouraged:

- Free-standing menu sign
- Backlit or self-illuminated signage



TEMPORARY SIGNS OR BANNERS

Temporary Banners may be permitted to allow businesses to advertise for limited time periods (e.g., for a grand opening or a special event), provided that the signage is movable and does not include sales promotions or impede pedestrian circulation or access. These temporary signs must be approved at least one week prior to their temporary installation and removed per the approved timeline. Failure to remove the banner or temporary sign may result in a fine.

The following standards apply:

- Banners shall be sized appropriately and must remain within the boundary of the Business storefront.
- Temporary placement of banners is allowed if mounted at the level of the building's second floor or no higher than 15 feet above the side-walk level, whichever is less.
- Banners shall be professionally-fabricated.



SANDWICH BOARDS

Encouraged:

- One moveable, free-standing “sandwich board” will be permitted per business, provided that it does not exceed four feet in height and does not exceed nine square feet in area per face. Sandwich board signage does not count toward the maximum signage allowed.
- Sandwich Boards may only be set within the property – not in a common lot, the public right-of-way, or on the public sidewalk.
- Sandwich Boards may only be displayed during business hours, and must be stored so as not viewable from public rights-of-way during non-business hours, i.e., removed from the outdoors at the close of the business.
- Hand-written words and graphics
- “Blackboard” or “whiteboard” surface that allows for easy changing of information

Prohibited:

- Electronic signs, flashing or rear-lit canned signs



ENTRANCE ACTIVATION ZONE

- The Activation Zone is the area immediately adjacent to the entry within which temporary merchandising can be placed to enhance the patron and pedestrian experience.
- Temporary or moveable elements in the Activation Zone shall comply with Landlord criteria that has been approved by the NCC. Outdoor street front merchandising must be approved by the building Landlord. Permanent elements require NCC approval.

Encouraged:

- Art
- Interactive window displays
- Temporary retail displays - outdoors during business hours only, not stored in public view during off-hours, limited to 8' tall and a total volume of 400 cubic feet.

Discouraged:

- Moveable railings



APPENDIX F2

SIGNAGE AND DISPLAY GUIDELINES
FOR MIXED-USE, COMMERCIAL AND
SHOP HOUSE BUILDINGS

MUELLER

AUSTIN TEXAS

REVISED MARCH 2018

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INTRODUCTION & PURPOSE

This document provides owners of ground-level street front businesses within mixed-use, commercial and shop house buildings with design guidelines for signage and displays, that are oriented to and visible from public rights-of-way and public open spaces. The guidelines govern buildings located in Mueller's neighborhoods and portions of the Town Center not subject to the Signage and Storefront Guidelines for the Aldrich Street District (Appendix F1). These guidelines do not govern buildings in Mueller's Market District or the Regional Retail Center, which are set forth in Appendix F3. The goal of the guidelines is to ensure that signage remains at an appropriate scale with the neighborhood context, that it is durable and well-constructed and that it allows for a level of self expression, creativity and diversity that can contribute to Mueller's unique identity.

The guidelines provided in this document are adopted as an integral part of the Mueller Design Book administered by the New Construction Council (NCC), which is responsible for approving all signage. Building owners or tenants need permission from the NCC to attach permanent signs or banners to their buildings. For directions on how to file an application for signage, please visit MuellerAustinOnline.com. Business owners and/or tenants are also required to obtain approvals from the building's owner or any Property or Home Owners Association prior to any approval from the NCC. Building owners applying for overall building identity signs are also required to obtain NCC approval.

In addition to these approvals, all signage must be consistent with the City of Austin's Sign Regulations set forth in the Land Development Code (Section 25-10) and Mueller's PUD Ordinance. Although many of the sign requirements described herein may meet the City's eligibility criteria for exemptions from an installation permit, it is the responsibility of each owner or tenant to ensure that their proposed signage is consistent with the City's standards and that any required City permits are obtained. This document and any approval provided by the NCC do not imply that proposed signage is consistent with the City's ordinance.



GENERAL

- Building owners, businesses or tenants may install signage only after advance written approval by the Mueller New Construction Council (NCC) or a designated subcommittee such as the Storefront and Signage Committee or the Modifications Committee (MC).
- Signage shall be installed and maintained at Owner's expense.
- Five types of permanent signage are permitted with prior approval: building identity signs, projecting blade signs; wall-mounted signs; wall-mounted plaques; and applied lettering on doors or windows, subject to the guidelines below. Temporary signage may also be permitted, per the guidelines below.
- Electronic signs, neon, flashing or rear-lit canned signs are not permitted.
- Permanent advertising or promotional signage is not permitted.
- Apart from building identity signs, no permanent signage or banners are allowed on the second or third stories of mixed-use, shop house, or commercial buildings.
- The NCC (or its designated subcommittee), at its sole discretion, may require the Owner to remove temporary or permanent signage or temporary displays of merchandise, if it is found to be offensive, misleading, not esthetic or generally, a downgrading of the public view or experience from the public right-of-way, or if it is not in compliance with these design guidelines.

BUILDING IDENTITY SIGNS

Signage above a building's ground level will be permitted by the NCC to provide overall identity for the building, subject to the following standards.

- A building will be eligible for a parapet sign located on the uppermost floor of the building if the building occupies at least 175 feet of street frontage, and if the building has a commercial or institutional use that requires identity and relies on visitor access.
- Building identity signs for residential apartment or condominium buildings, or for buildings with less than 175 feet of street frontage shall be placed within 30 feet of the ground level.
- Building identity signs must be limited to an established logo or mark that identifies the name of the principal business of the building; it may not include any form of advertising or information beyond the business or building name.
- The size and shape of the sign must be comfortably in scale with the composition of the building's architecture, façade treatment and fenestration.
- The sign must not project more than 12 inches from the building face, and may not project above the parapet of the building.
- The sign should be halo illuminated; face illuminated or canned signs are strongly discouraged. Flashing or blinking signs are not permitted.
- Only one company identity sign is allowed per building. One additional sign will be permitted if the building has frontages on more than one street.
- No more than two identity signs are allowed per building.





BLADE SIGNS

Blade Signs projecting perpendicular from the face of the building shall be pedestrian-scaled and detailed and constructed to be durable and attractive. The following standards apply:

- Signage materials can include painted and polished metals, finished wood, highly durable plastics, glass or translucent materials, subject to NCC approval.
- Signage shall be fabricated and installed by a signage company.
- The content of the blade sign shall be limited to a logo, the name of the business and/or the principal product or service being offered (e.g., Acme Chiropractors, Williams Wines). In addition, iconographic shapes that describe the nature of the business are also permitted.
- The sign shall be placed no less than eight feet above the immediately adjacent sidewalk level and no more than 16 feet above it for commercial and mixed-use buildings and no more than 14 feet for shop houses.
- The sign may be affixed on the underside of an awning, or be attached to the building face or column.
- The sign shall not project beyond the property line of the building into a common lot or into a public right-of-way unless approval is provided by the NCC and/or the City of Austin, as applicable.
- Lighting of the sign is permitted, subject to review and approval by the NCC.





WALL-MOUNTED SIGNS

Wall-mounted signs affixed to the face of the building shall be of a scale and material that is complementary with the building and designed to enhance the pedestrian realm, while providing an appropriate level of visibility and identity to the business. The following standards apply:

- The maximum size of the sign shall not exceed an area of 24 square feet for commercial and mixed-use buildings, and no more than 20 square feet for shop house buildings.
- The sign shall be placed at least eight feet and no more than 16 feet above the level of the sidewalk for commercial and mixed-use buildings and no more than 14 feet for shop house buildings.
- The front face of the sign shall not project more than six inches from the face of the building.
- Prevailing letter height shall be eight to 12 feet tall.
- Lighting or electrification of the sign, if used, should be minimal; neon or halo lighting is preferred. Backlit signage is not permitted.
- The content of the wall-mounted sign shall be limited to a logo and/or the name of the business.

- To promote diversity and a more complimentary relationship with the building architecture, wall-mounted letters are encouraged as an alternative to rectangular wall-mounted signs.
- Signage materials can include metal, wood, glass or highly durable plastics, subject to review and approval by the NCC or Modifications Committee (MC).
- Signage shall be fabricated and installed by a signage fabrication company.





WALL-MOUNTED PLAQUES

Wall-mounted plaques affixed to the face of the building shall be of a scale and material that is complementary with the building and designed to enhance the pedestrian realm. The following standards apply:

- The maximum size of the plaque shall not exceed three square feet.
- The plaque shall be placed in view of a pedestrian between four and eight feet above the elevation of the sidewalk.
- The front face of the plaque shall not project more than three inches from the face of the building.
- The content of the wall-mounted plaque shall be limited to a logo, the name of the business and/or the principal product or service being offered. Lighting or electrification of the plaque is not permitted.
- Plaque materials can include metal, wood, glass or highly durable plastics, subject to review and approval by the NCC or Modifications Committee (MC).
- Plaques shall be fabricated and installed by a signage fabrication company.





WINDOW AND DOOR-MOUNTED SIGNS

Window and Door-Mounted Graphics and Lettering are permitted, provided that they do not impede the transparency of the storefront. The following standards apply:

- Hand painted lettering or graphics applied by a professional signage company are preferred.
- Lettering or graphics can include the actual physical address (and suite number or letter, if applicable) the official business logo and name, days and hours of operation, phone number and/or website address.
- Lettering or graphics shall be limited to an area not exceeding 40% of the available glass space on the principal entry door, and not exceeding 20% of the storefront window area.
- Neon or electrified signs suspended on the shop front windows or doors are not permitted.





TEMPORARY SIGNS OR BANNERS

Temporary Banners may be permitted to allow businesses to advertise for limited time periods (e.g., for a grand opening or a special event), provided that the signage is movable and does not include sales promotions or impede pedestrian circulation or access. These temporary signs must be approved by Catellus, at least one week prior to their temporary installation, and removed after no more than two weeks. Failure to remove the banner or temporary sign may result in a fine.

The following standards apply:

- Banners may be a maximum of 18 feet long and 24 inches tall but must remain within the boundary of the Business storefront.
- Temporary placement of banners is allowed if mounted at the level of the floor structure of the building's second floor or no higher than 15 feet above the sidewalk level, whichever is less.
- Banners shall be professionally-fabricated.
- Temporary signs or banners shall be removed after a two-week period.
- Temporary signage of this nature is allowed to be posted no more than once per year and only for events of significance (e.g., Grand Opening, Now Open).



SANDWICH BOARDS

Sandwich Boards, the typically, two-sided, folding A-frame sign panels, may be displayed. These need not be approved by the NCC, and may employ hand-written words and graphics, and may have a “blackboard” or “whiteboard” surface that allows for easy changing of information. The following standards apply:

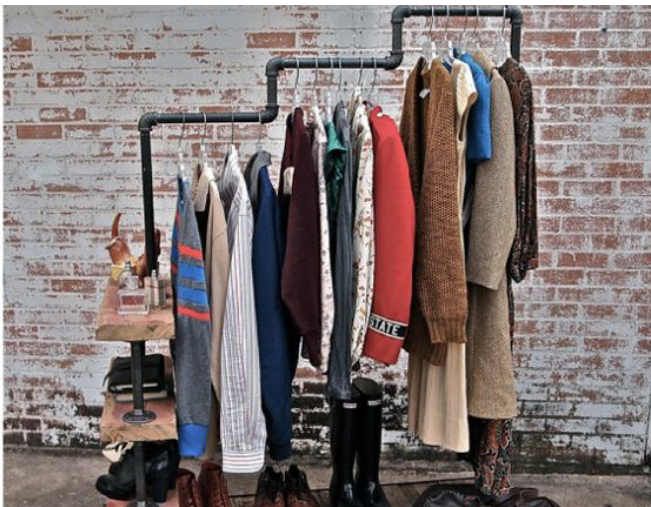
- One moveable, free-standing “sandwich board” will be permitted per business, provided that it does not exceed four feet in height and does not exceed nine square feet in area per face.
- Sandwich Boards may only be set within the property – not in a common lot, the public right-of-way, or on the public sidewalk.
- Sandwich Boards may only be displayed during business hours, and must be stored so as not viewable from public rights-of-way during non-business hours, i.e., removed from the outdoors at the close of the business.



TEMPORARY OUTDOOR DISPLAYS OF MERCHANDISE

Temporary, Outdoor Displays of Merchandise are permitted and do not require NCC approval, so long as these are positioned within the property. The following standards apply:

- Such displays may be positioned outdoors during business hours, and must be stored so as not viewable from public rights-of-way during non-business hours, i.e., removed from the outdoors at the close of the business.
- Displays of merchandise, taken together, may not exceed a height of eight feet or a total volume of 400 cubic feet.







OUTDOOR CAFE SEATING

Outdoor seating and café tables are encouraged for storefront businesses that offer food or drinks for sale to activate the pedestrian environment. The following standards shall apply:

- Café tables and chairs must be confined to the property and may not encroach into a common lot or the public right-of-way, unless written authorization is provided by the NCC or the City of Austin as applicable.
- In no case shall café tables or chairs impede pedestrian movement along a public sidewalk.
- Tables and chairs shall be of a high quality suitable for exterior use, with metal, plastic and/or durable and weathering woods. All furniture shall be commercial grade and manufactured or constructed for outdoor commercial use.
- Furniture may not be stacked or stored outside during non-business hours.
- Small round or square tables shall seat no more than four people, unless otherwise approved by the NCC or MC.
- All tables and chairs shall be movable; none will be permitted to be bolted or affixed to the pavement surface.

- Flower boxes or planters may be used to define the boundaries of the café. Such barriers shall not encroach into a common lot or the public right-of-way, unless written authorization is provided by the NCC or the City of Austin as applicable.
- All trash, recyclables and compostables generated by the café shall be disposed of by the business in receptacles provided internal to the building or within the café zone. Exterior receptacles shall be removed during non-business hours.



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APPENDIX F3

MUELLER REGIONAL RETAIL SIGNAGE CRITERIA

MUELLER

AUSTIN TEXAS

REVISED MARCH 2006

Disclaimer:

These Signage Guidelines are envisioned as a dynamic document that will continue to evolve in response to changing conditions and circumstances. As such, it is anticipated that over the life of the community, the guidelines herein will be refined, waived or amended to incorporate new conditions, special opportunities and/or circumstances.

Neither the Master Developer nor the City has made or makes any representations or warranties of any kind or character, express or implied, with respect to this manual.

APPENDIX F3

Mueller Regional Retail Environmental Graphics Signage Criteria

PURPOSE

The purpose of the Mueller Regional Retail Sign Criteria is to ensure that signage for the Shopping Center is presented with diversity and creativity while maintaining standards that achieve consistency throughout the project.

This Sign Criteria is established for the Shopping Center to provide a coordinated graphics system that communicates information in a distinctive and aesthetically pleasing manner. The visual consistency created by the criteria minimizes confusion and promotes an image of quality that unites all of the individual retail establishments.

The Sign Criteria establishes minimum standards and maximum sizes that are reasonable and equitable, while providing sufficient flexibility to accommodate the Tenant's need to be recognizable and marketable, to reflect each retail chain tenant's graphic images, and to encourage innovation while preserving the design quality of the development.

It is the responsibility of each tenant to submit design drawings of the proposed signage to the Landlord and to the City of Austin for approval prior to the installation of any signage. The use of professional environmental graphic designers and professional signage companies to determine design detailing and sign placement is highly encouraged.



Page Title / Element Type
Purpose

MUELLER REGIONAL RETAIL SIGNAGE DESIGN CRITERIA

The attached signage design criteria for the Regional Retail sites at Mueller have been reviewed and approved by the Mueller New Construction Council (NCC), an architectural review committee composed of six design professionals and the Master Developer. The role of the NCC is to assure that all new construction at Mueller is consistent with the design standards and quality set forth by the Mueller Design Book. The NCC's decisions are final and binding and, as such, may not be appealed.

| | |
|-------------------------|------|
| Project Standards | G0.0 |
|-------------------------|------|

SECTION 1 – SITE SIGNAGE

| | |
|--|------|
| ST1 Retail Pylon | G1.0 |
| ST2a Project Entrance Wall with Identification | G2.0 |
| ST2b Project Entrance Wall | G2.1 |
| ST3 Motorist Directional | G3.0 |
| ST7 Tenant Identification Blade | G4.0 |
| ST8 Service Directional..... | G5.0 |

SECTION 2 – TENANT FACADE SIGNAGE

| | |
|--|-------|
| Major Anchor Identification..... | G6.0 |
| Major Anchor Identification..... | G7.0 |
| Major Anchor Identification | G8.0 |
| Major Anchor and Shops A Identification | G9.0 |
| Major Anchors, Restaurant and Shops Identification..... | G10.0 |
| Major Anchors, Restaurant and Shops Identification..... | G11.0 |
| Restaurant and Shops Identification..... | G12.0 |
| Restaurant and Shops Identification..... | G13.0 |

SECTION 3 – SIGN LOCATION PLAN

| | |
|--------------------------|-------|
| Sign Location Plan | G14.0 |
|--------------------------|-------|

SECTION 4 – PLANNED SIGN PROGRAM & DESIGN GUIDELINES FOR TENANT SIGNAGE

| | |
|------------------------|-------|
| Table of Contents..... | G15.0 |
|------------------------|-------|

PROJECT LOGO

COLOR: PMS 179

BLACK AND WHITE/MONOTONE



TYPOGRAPHY: AVAILABLE IN PC OR MAC FORMAT FROM WWW.MYFONTS.COM

ENGRAVERS' GOTHIC REGULAR


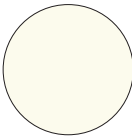
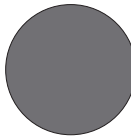
A A B B C C D D E E F F G G H H I I J J K K L L M M
N N O O P P Q Q R R S S T T U U V V W W X X Y Y Z Z
0 1 2 3 4 5 6 7 8 9

ITC NEW BASKERVILLE STD ROMAN

A a B b C c D d E e F f G g H h I i J j K k L l M m
N n O o P p Q q R r S s T t U u V v W w X x Y y Z z
0 1 2 3 4 5 6 7 8 9

COLOR PALETTE

MAIN PROJECT COLORS

| | | |
|---|---|--|
|  |  |  |
| PMS 179U (Print and Media only) | PMS 9100 U | PMS Cool Gray 11 U |
| C 0 M 79 Y 100 K 4 | C 0 M 0 Y 7 K 1 | C 0 M 2 Y 0 K 68 |

COLORS AS PRINTED HERE ARE APPROXIMATE AND NOT INTENDED FOR MATCHING. PLEASE REFER TO ACTUAL PANTONE COLOR CHIPS FOR ACCURATE COLOR MATCHING.

Fabrication Documentation

Drawings suggest an overall visual aesthetic. Fabricator's fabrication techniques should achieve the same visual intent. No visual changes will be acceptable.



Page Title / Element Type
Project Standards

G0.0

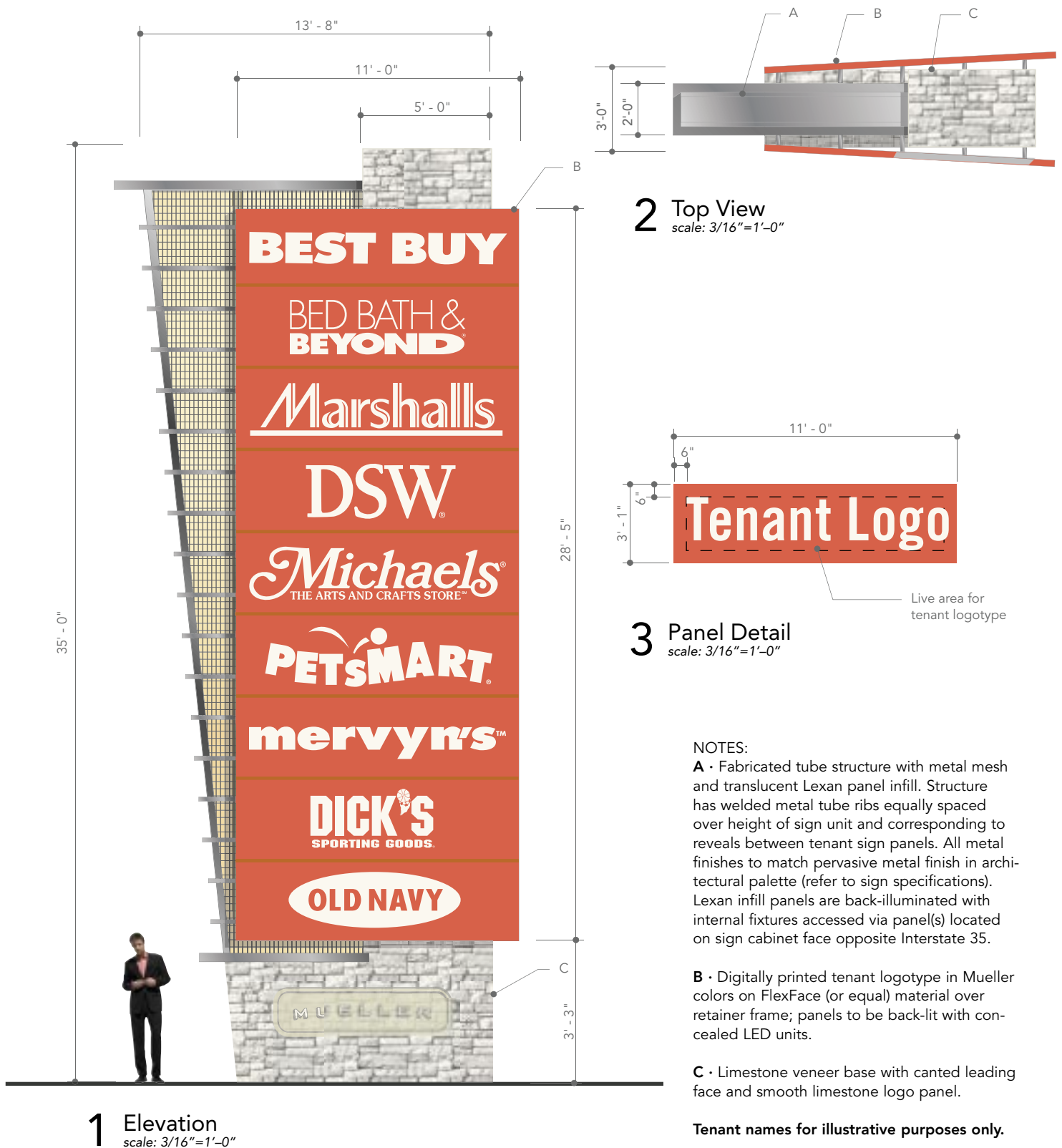
Mueller Regional Retail Environmental Graphics Section 1 - Site Signage



©2006 fd2s inc.



Date
31 March 2006



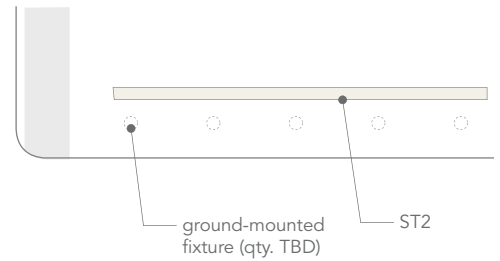
Fabrication Documentation

Drawings suggest an overall visual aesthetic. Fabricator's fabrication techniques should achieve the same visual intent. No visual changes will be acceptable.



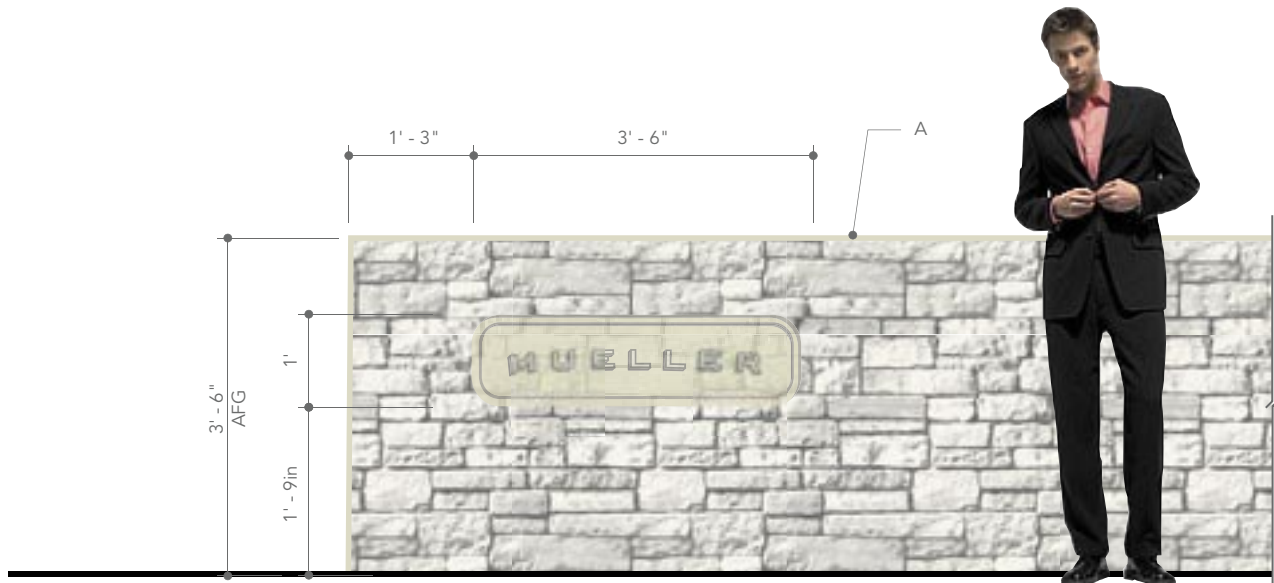
1 Entrance Elevation Diagram

scale: 1/16" = 1' - 0"



2 Entrance Elevation Diagram

scale: 1/16" = 1' - 0"



3 Elevation

scale: 1/2" = 1' - 0"

NOTES:

A - Limestone veneer wall with smooth limestone logo panel. Wall and logo illuminated by ground-mounted fixtures.

Entrance wall design pending approval by landlord.

Fabrication Documentation

Drawings suggest an overall visual aesthetic. Fabricator's fabrication techniques should achieve the same visual intent. No visual changes will be acceptable.



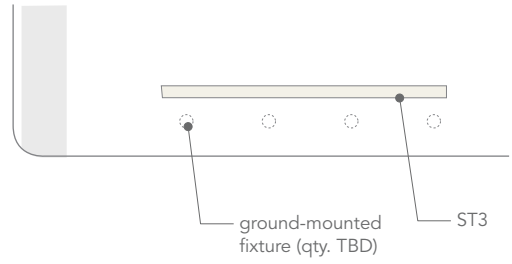
Page Title / Element Type

ST2a
Project Entrance Wall
with Identification

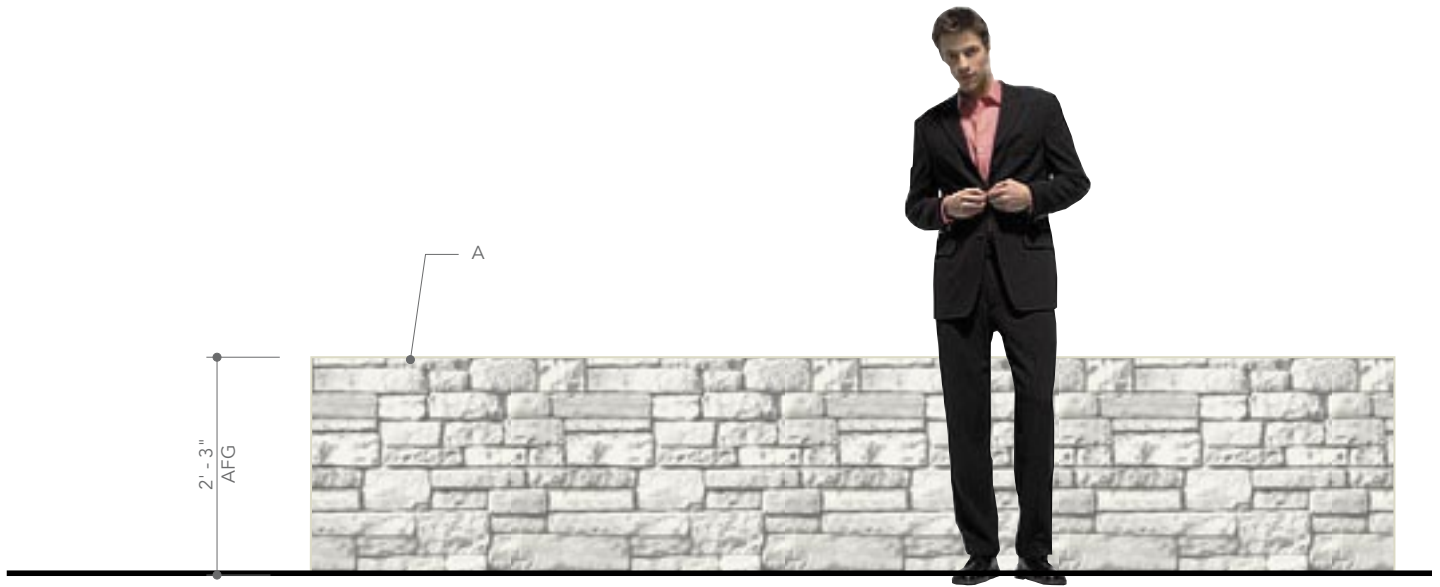
G2.0



1 Entrance Elevation Diagram
scale: 1/16" = 1' - 0"



2 Entrance Elevation Diagram
scale: 3/32" = 1' - 0"



3 Elevation
scale: 1/2" = 1' - 0"

NOTES:

A -Limestone veneer wall illuminated by ground-mounted fixtures.

Entrance wall design pending approval by landlord.

Fabrication Documentation

Drawings suggest an overall visual aesthetic. Fabricator's fabrication techniques should achieve the same visual intent. No visual changes will be acceptable.



Page Title / Element Type

ST2b
Project Entrance Wall

G2.1

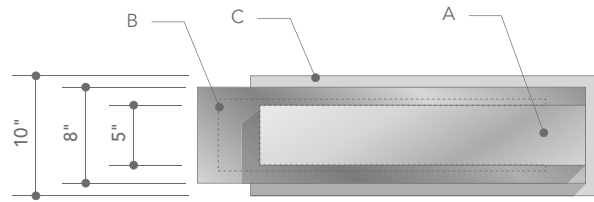
NOTES:

A - Fabricated aluminum channel frame with metal mesh (refer to sign specifications), and translucent Lexan panel infill.

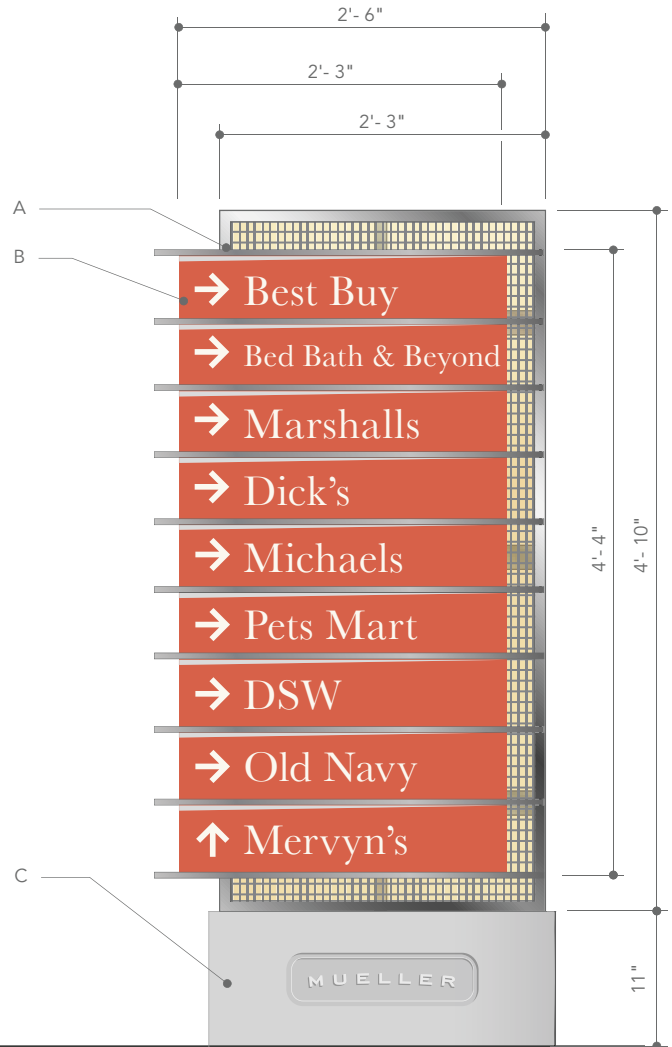
B - Painted aluminum panel with computer cut reflective vinyl type in project font, ITC New Baskerville.

C - Poured-in-place concrete base with integral cast Mueller logo; concrete surface to be smooth with no texture. Sample to be submitted to fd2s for approval.

Tenant names for illustrative purposes only.



2 Top View
scale: 1"=1'-0"



1 Elevation
scale: 3/4"=1'-0"

Fabrication Documentation

Drawings suggest an overall visual aesthetic. Fabricator's fabrication techniques should achieve the same visual intent. No visual changes will be acceptable.

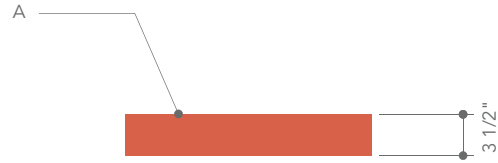


Page Title / Element Type

ST3

Motorist Directional

G3.0



2 Top View
scale: 3/4"=1'-0"



1 Elevation
scale: 3/4"=1'-0"

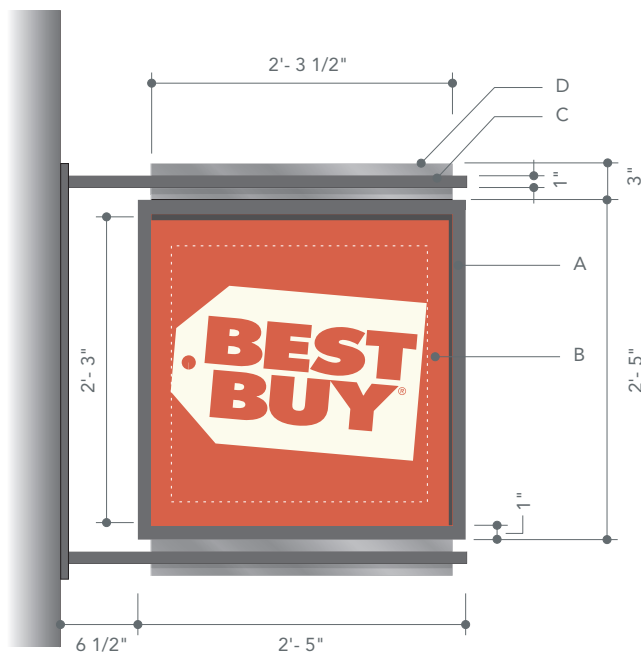
NOTES:

A • Fabricated painted aluminum cabinet with die-cut vinyl graphics and text; cabinet to receive 1/2" thick reveal divider.

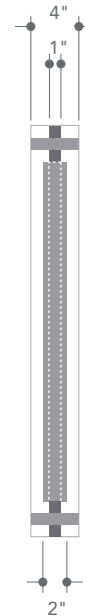
B • Poured-in-place concrete base with integral cast Mueller logo; concrete surface to be smooth with no texture. Sample to be submitted to fd2s for approval.

Fabrication Documentation

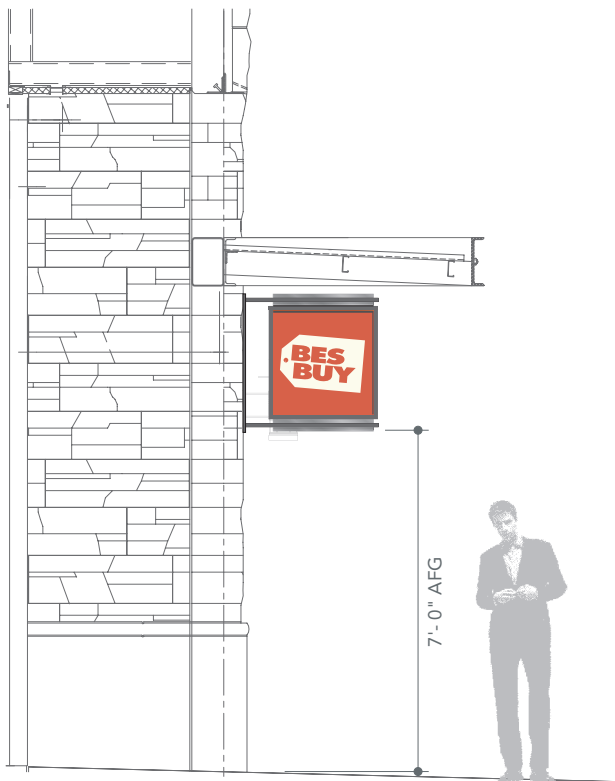
Drawings suggest an overall visual aesthetic. Fabricator's fabrication techniques should achieve the same visual intent. No visual changes will be acceptable.



2 Front View
scale: 3/4"=1'-0"



3 End View
scale: 3/4"=1'-0"



1 Mounting Elevation
scale: 1/4"=1'-0"

NOTES:

A • Fabricated aluminum 1" x 2" channel frame; finish to match pervasive metal in architecture palette (refer to specifications).

B • Double sided aluminum panel insert painted to match PMS 179U with applied die-cut vinyl tenant logo to match PMS 9100 applied on both faces.

C • Steel support bracket secured to wall with concealed fasteners; finish to match PMS Cool Gray 11U

D • Aluminum fins on top and bottom mechanically attached to bracket; finish to match pervasive metal finish in architectural palette (refer to specifications).

For consistency, all blade signs will be fabricated by a single vendor. Tier 2, 3 & 4 tenants should contact **SignTech International** (Bob Strobeck 512-494-0002) to order this sign type.

Fabrication Documentation

Drawings suggest an overall visual aesthetic. Fabricator's fabrication techniques should achieve the same visual intent. No visual changes will be acceptable.



Page Title / Element Type

ST7

Tenant Identification Blade

G5.0

Mueller Regional Retail Environmental Graphics Section 2 - Tenant Facade Signage



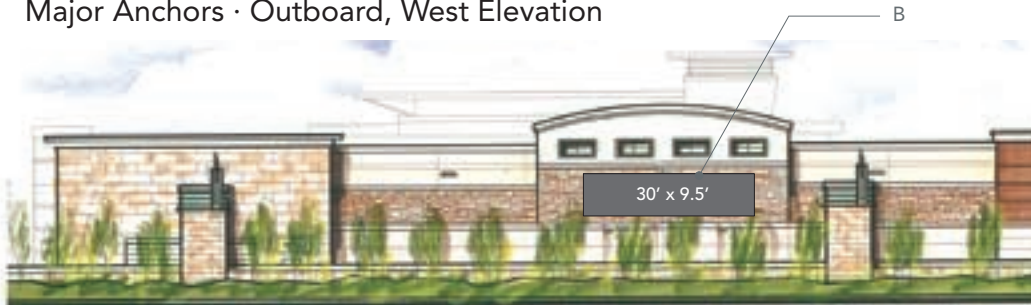
a
Major Anchors · Outboard, West Elevation



b



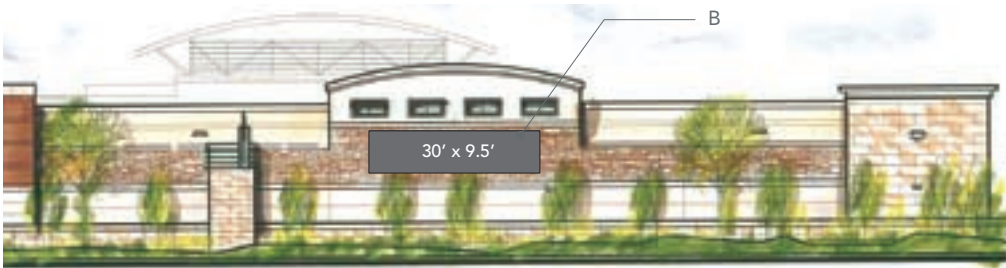
c



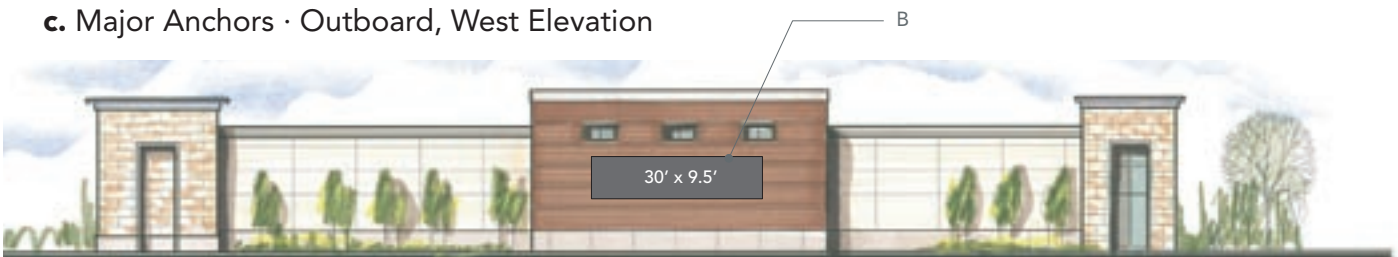
a. Major Anchor · Outboard, West Elevation



b. Major Anchor · Outboard, West Elevation



c. Major Anchors · Outboard, West Elevation



Major Anchor · Outboard, South Elevation

NOTES:

B · Individually mounted fabricated metal letterforms halo-illuminated letterforms paint to match Pantone Cool Gray 11.

Fields denote maximum area tenant sign can occupy; field is centered horizontally on facade



a

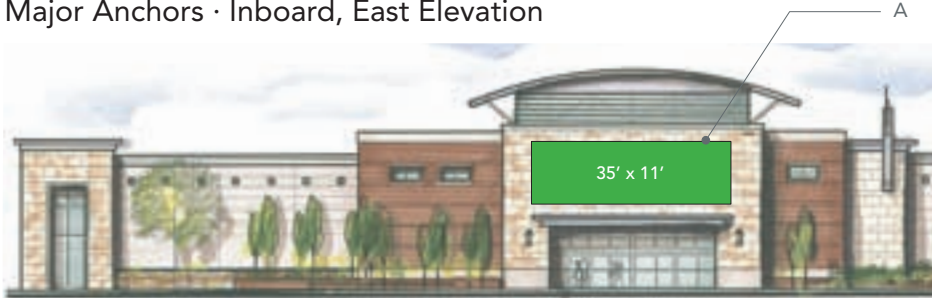


b

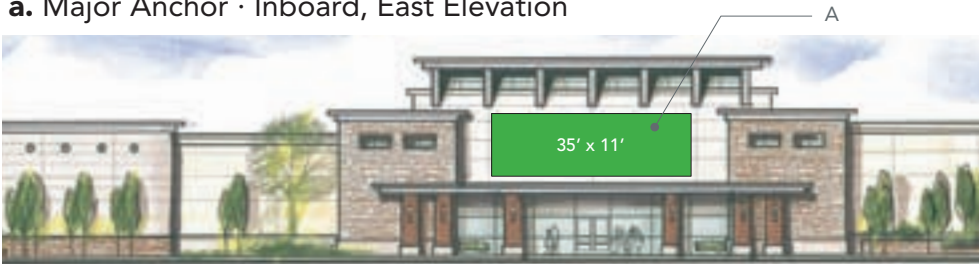


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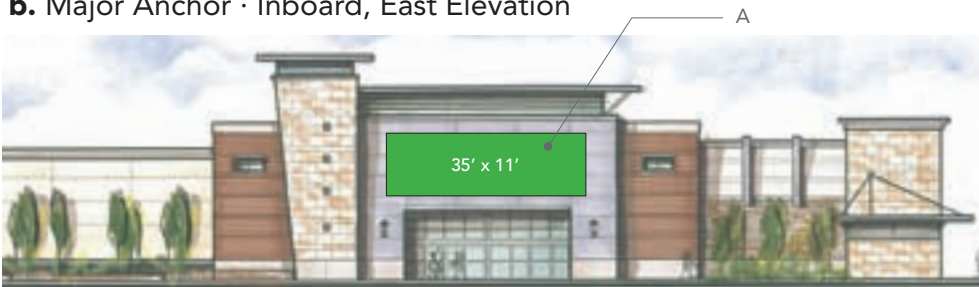
Major Anchors · Inboard, East Elevation



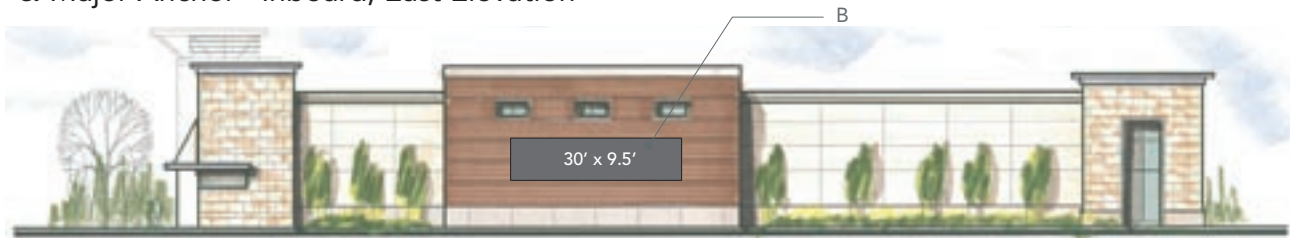
a. Major Anchor · Inboard, East Elevation



b. Major Anchor · Inboard, East Elevation



c. Major Anchor · Inboard, East Elevation



Major Anchor · Outboard, North Elevation

NOTES:

A • Individually mounted fabricated metal letterforms face-illuminated; color of letterforms are per tenant's corporate standards.

B • Individually mounted fabricated metal letterforms halo-illuminated; letterforms paint to match Pantone Cool Gray 11.

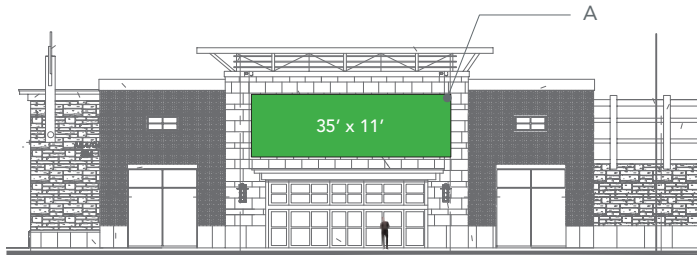
Fields denote maximum area tenant sign can occupy; field is centered horizontally on facade



a

b

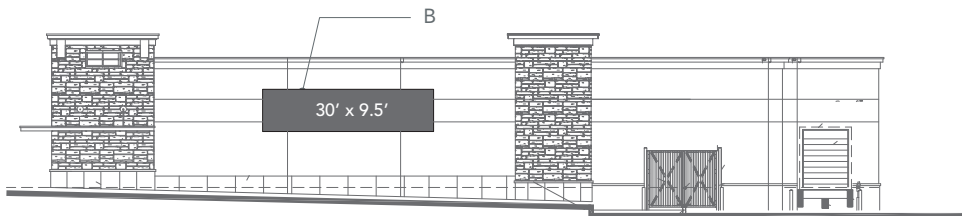
Shops A · Inboard, North Elevation



a. Shops A · Inboard, North Elevation



b. Shops A · Inboard, North Elevation



Shops A · Outboard, West Elevation



Shops A · Outboard, East Elevation

NOTES:

A · Individually mounted fabricated metal letterforms face-illuminated; color of letterforms are per tenant's corporate standards.

B · Individually mounted fabricated metal letterforms halo-illuminated; letterforms paint to match Pantone Cool Gray 11.

Fields denote maximum area tenant sign can occupy; field is centered horizontally on facade

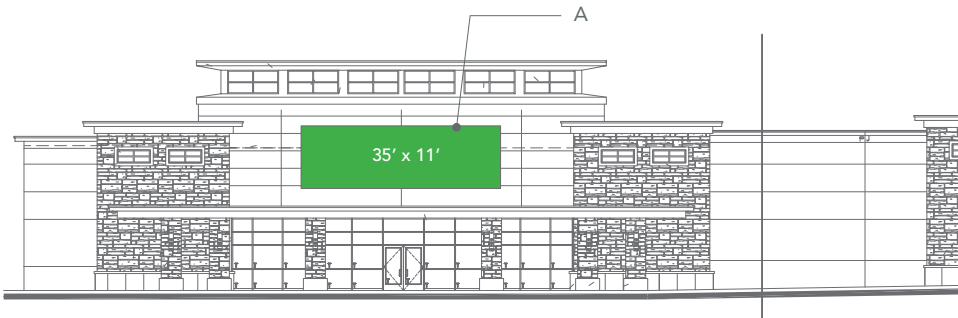


a

b

c

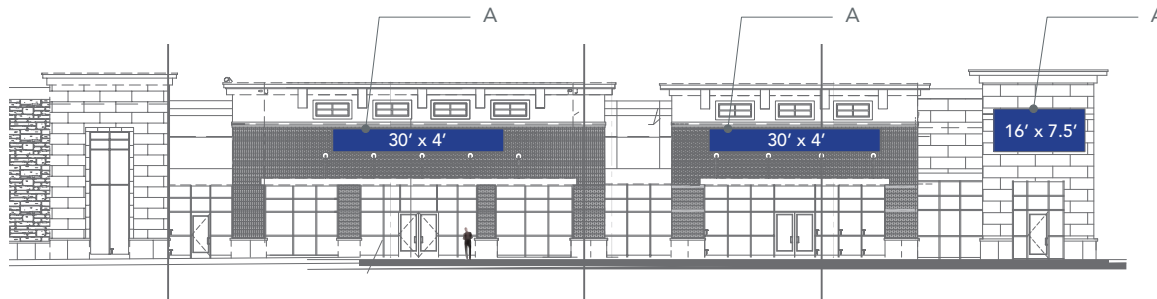
Shops B · Inboard, North Elevation



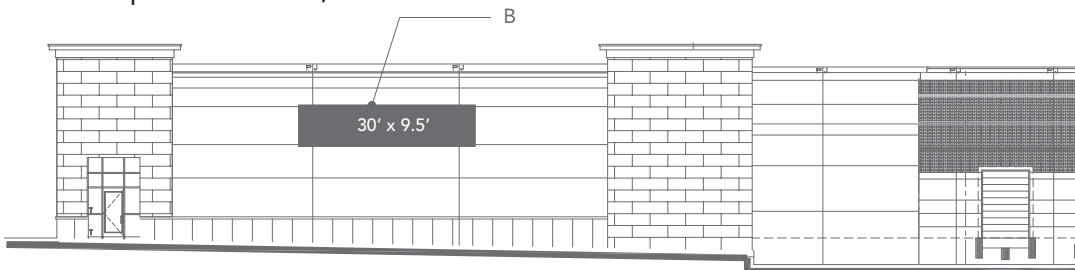
a. Shops B · Inboard, North Elevation



b. Shops B · Inboard, North Elevation



c. Shops B · Inboard, North Elevation



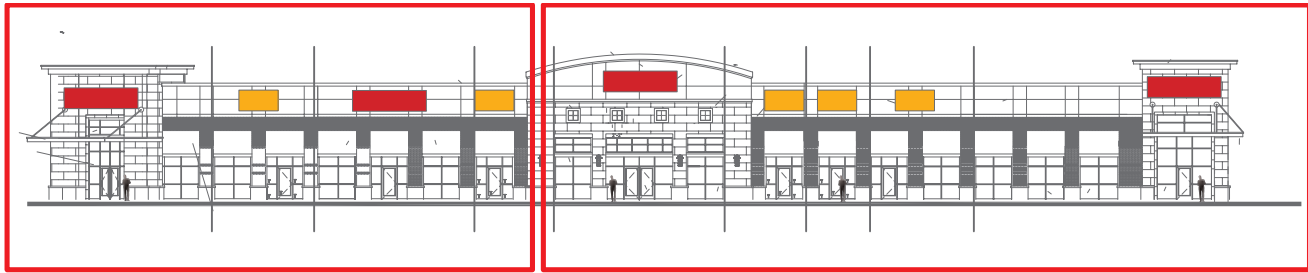
Shops B · Inboard, West Elevation

NOTES:

A • Individually mounted fabricated metal letterforms face-illuminated; color of letterforms are per tenant's corporate standards.

B • Individually mounted fabricated metal letterforms halo-illuminated; letterforms paint to match Pantone Cool Gray 11.

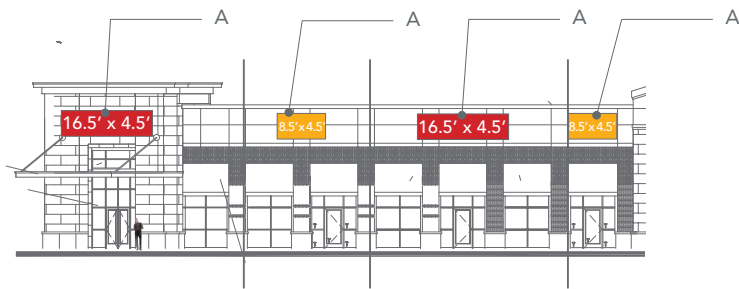
Fields denote maximum area tenant sign can occupy; field is centered horizontally on facade



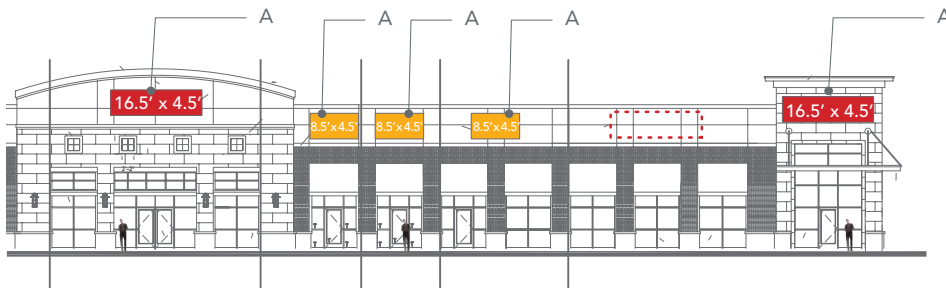
a

b

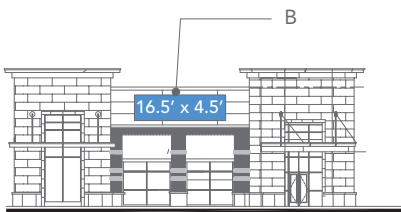
Shops C · Inboard, West Elevation



a. Shops C · Inboard, West Elevation



b. Shops C · Inboard, West Elevation



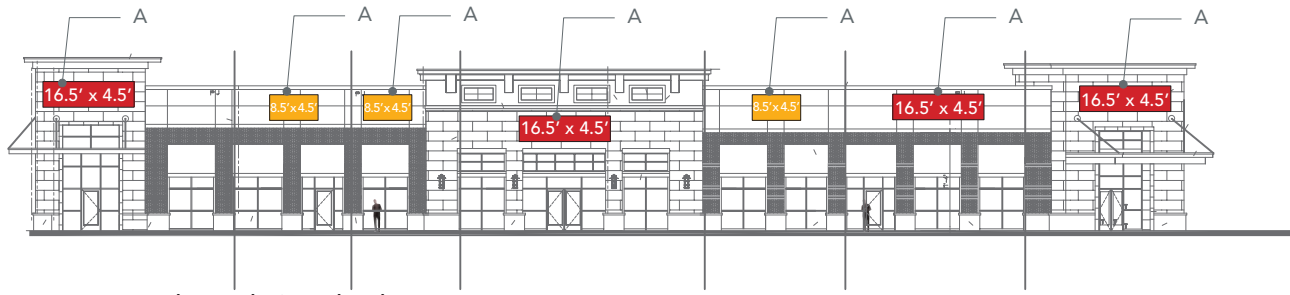
Shops C · Outboard, North Elevation

NOTES:

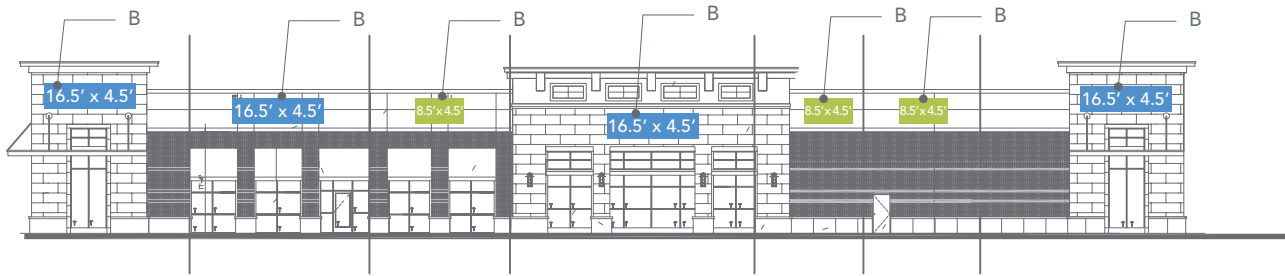
A • Individually mounted fabricated metal letterforms face-illuminated; color of letterforms are per tenant's corporate standards.

B • Individually mounted fabricated metal letterforms halo-illuminated; letterforms paint to match Pantone Cool Gray 11.

Fields denote maximum area tenant sign can occupy; field is centered horizontally on facade



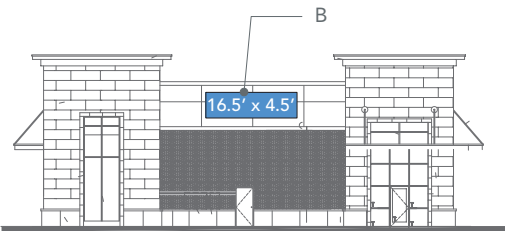
Rest D · Inboard, South Elevation



Rest D · Outbound, North Elevation



Rest D · Outbound, East Elevation



Rest D · Outbound, West Elevation

NOTES:

A · Individually mounted fabricated metal letterforms face-illuminated; color of letterforms are per tenant's corporate standards.

B · Individually mounted fabricated metal letterforms halo-illuminated; letterforms paint to match Pantone Cool Gray 11.

Fields denote maximum area tenant sign can occupy; field is centered horizontally on facade

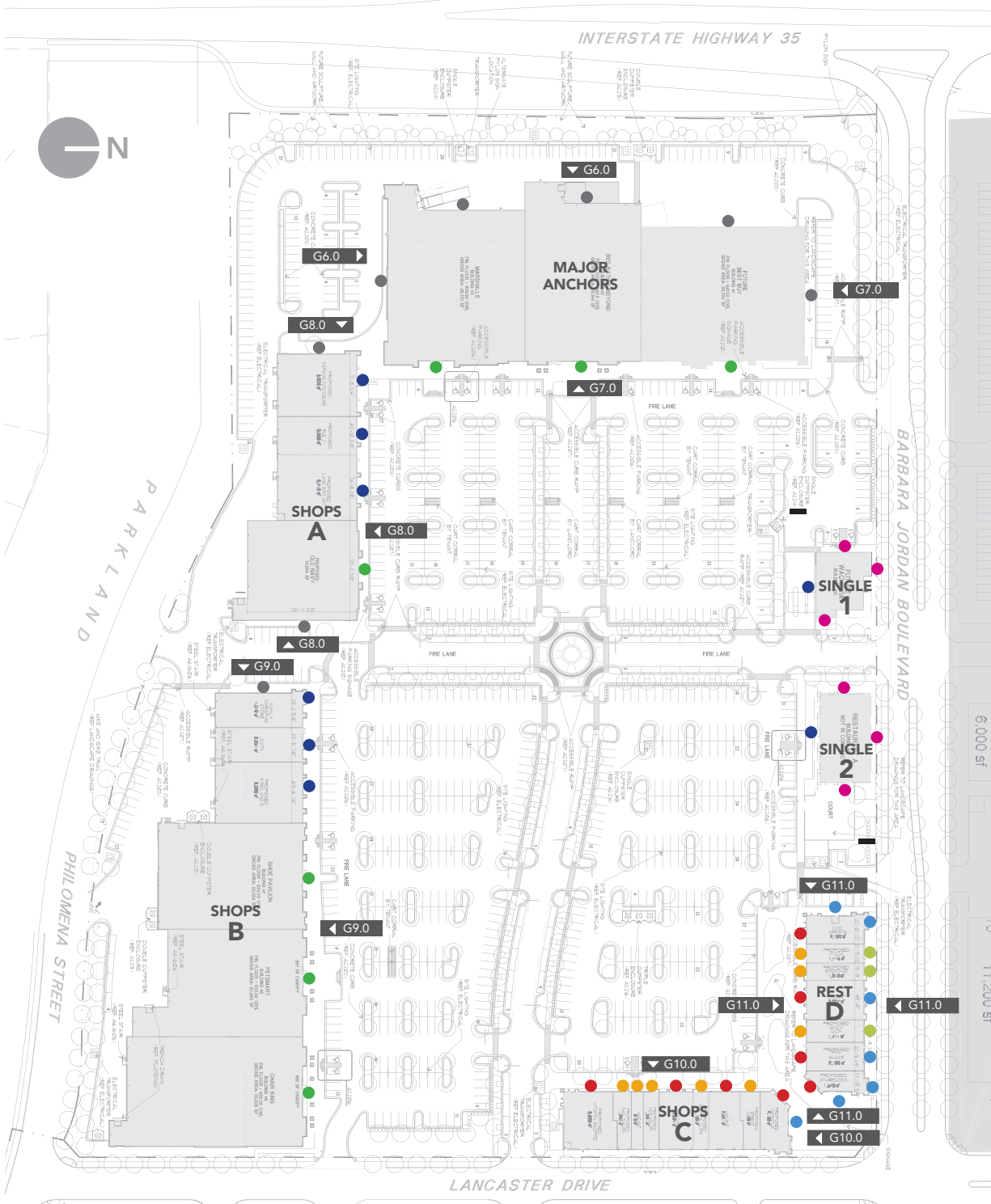
Mueller Regional Retail Environmental Graphics Section 3 - Sign Location Plan



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Date
12 January 2007



INBOARD TENANT IDENTIFICATION

| TIER | Tenant Surface | Sign Size |
|------|---|------------------|
| 1 | 14,000 sf - 30,000 sf | 35 ft x 11 ft |
| 2 | 3,900 sf - 8,000 sf (Shops A & B) | 30 ft x 4 f |
| 3 | 2,000 sf - 3,899 sf & end caps (Shops C & Rest D) | 16.5 ft x 4.5 ft |
| 4 | Up to 1,999 sf | 8.5 ft x 4.5 ft |

OUTBOARD TENANT IDENTIFICATION

| TIER | Tenant Surface | Sign Size |
|------|---|------------------|
| 5 | 3,900 sf - 30,000 sf (Major, Shops A & B) | 30 ft x 9.5 ft |
| 6 | 2,000 sf and up & end caps (Shops C & Rest D) | 16.5 ft x 4.5 ft |
| 7 | Up to 1,999 sf | 8.5 ft x 4.5 ft |
| 8 | Single Tenant | 20 ft x 4.5 ft |
| 9 | Freestanding Monument | 6 ft x 2.6 ft |

Mueller Regional Retail Environmental Graphics Section 4 - Planned Sign Program and Design Guidelines for Tenant Signage

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All signage shall be reviewed and approved in writing by the Landlord for conformance with this Sign Criteria and overall design quality. Approval or disapproval of signage submittals shall remain the right of the Landlord.

1.1 LANDLORD APPROVAL:

A. Prior to submission to the City of Austin and prior to fabrication and installation, Tenants shall submit for approval one (1) reproducible copy and three (3) additional attachment. At least one (1) drawing of the signage must be in color. Tenant shall provide material and color samples board and, if available, photographs of proposed signage. All materials and colors are subject to approval in the field by the landlord. The plans must include the building façade to scale, the depiction of the signage on the building to scale, a site plan indicating the location of the Tenant within the project, and construction specifications and details of the proposed signage.

B. If the plans submitted to the Landlord are not acceptable or require revisions, they must be resubmitted for approval unless approved "with conditions."

C. After plans are approved by the Landlord, one (1) set of the approved submittal with samples shall be retained by the Landlord and two (2) sets of plans will be returned to the tenant. One (1) approved set shall be included as part of the Tenant's submittal to the City of Austin.

1.2 CITY OF AUSTIN APPROVAL:

A. The Tenant will be responsible for contacting the City of Austin for necessary submittal requirements and obtaining approvals and necessary permits before installation of signage.

B. If the City of Austin requires any changes in the submittal, the Tenant shall obtain Landlord's approval of the change prior to re-submittal, obtaining a sign permit and/or installation of signage.

1.3 PERMITS:

All permits for signage and installation that are required by the City of Austin shall be obtained by the Tenant or its representative at Tenant's expense prior to fabrication and installation.

1.4 INSTALLATION:

A. All Signage shall be constructed and installed at Tenant's expense in strict accordance with Landlord's approved plan.

B. Tenants shall be responsible for the installation and maintenance of their signage.

C. The Tenant's Signage Contractor shall be licensed by the State of Texas and shall carry workman's compensation and public liability insurance against all damage suffered or done to any and all persons and/or property while engaged in the construction or erection of signage.

D. Tenant's Signage Contractor shall repair any damage caused by his work. Damage that is not repaired by the Contractor shall become the Tenant's responsibility to correct.

E. The Tenant upon request of the Landlord shall correct signage not in accordance with previously approved plans. If not corrected within thirty (30) days, signage may be corrected or removed by the Landlord at the Tenant's expense.

2.1 CONDITIONS OF LEASE:

Each Tenant is responsible for the design, fabrication, installation, maintenance and cost of electricity for their own signage.

The tenant or Landlord shall be responsible to provide the company responsible for the fabrication and installation of the signage a designated circuit from the electrical panel to the signage. Special circumstances and penetrations through walls and structures will be addressed on a case-by-case basis and must be approved and inspected by the Landlord.

Prior to termination or conclusion of a lease, the Tenant is responsible for the removal of their Signage. The storefront wall or fascia shall be patched and painted and returned to its original condition as it was prior to the installation of the Tenant's signage.

2.2 PROHIBITED SIGNAGE:

The following signage shall be prohibited within the project:

- A. Flashing, moving or scintillating light bulbs or effects.
- B. Window signage, other than those signs permitted elsewhere in this Sign Program.
- C. Signage employing luminous painted paper or cardboard signage.
- D. Paper, stickers or decals hung around or behind storefront glazing.
- E. Signage is not allowed on fabric awnings.
- F. Signage employing exposed raceways, ballast boxes or transformers.
- G. Temporary movable signs on walkways or in parking areas.

2.3 PERMANENT WINDOW SIGNS:

A. Purpose:

The purpose of permanent window signage is to provide an attractive and effective means of identification by the pedestrian for the following:

- 1. Name of business.
- 2. Taglines and symbols used by businesses.
- 3. Hours of operation.
- 4. Disabled, no smoking and other code signs.
- 5. Credit card acceptance logos.

Permanent window signage should be well organized and enhance the overall visual impact of the Center for the public. All signs or graphics within ten (10) feet of a window or storefront that can easily be seen from the exterior shall be considered window signage. Exceptions shall be considered on a case-by-case basis only if they meet the overall design intent consistent with the store and overall project design for Mueller.

B. Quantity:

Only the area of permanent window signs identifying the Tenant name shall be subject to the maximum allowable sign area applicable to that Tenant.

C. Location:

Permanent window signs must be located within the glass panel area, with no part of the sign within six (6) inches of the window mullion or frame. No window signs shall be displayed on the storefront doors, or the glass areas directly above the doors, except addresses (see 2.5 Address Signs).

All windows signs must be applied to the inside of the glass. The location of all window signs must be approved by the Landlord.

D. Size:

Permanent window signage shall be compatible with glass dimensions and window mullion locations. The maximum area for all window signs (per-



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Part 2 – General Project
Signage Guidelines &
Conditions - All Tenants

G17.0

manent and temporary) shall be no more than twenty-five percent (25%) of the window panel area.

E. Location:

Sign content shall be consistent with Tenant's overall graphics and identify package. Sign content and layout shall be subject to approval by the Landlord.

F. Materials:

Permanent window signs shall be limited to the following:

1. Individual vinyl or professionally painted letters or logos applied directly to the surface of the glass.
2. Sand blasted or etched effects applied to glass.
3. Metallic leafs applied to glass.

2.4 TEMPORARY PROMOTIONAL WINDOW SIGNS:

Tenants are allowed temporary or promotional window signage to convey information announcing retail sales events, seasonal/stock promotions and community activities, or a condition of short and limited duration. Temporary promotional window signs may be displayed for a cumulative period no greater than thirty (30) days each calendar year. Landlord approval is required prior to displaying each promotional window sign.

Tenants wishing to replace temporary promotional window signage on a regular basis may submit to the Landlord a proposed changing temporary promotional window sign program. The approved program will allow for replacement of temporary signs on a regular basis without the necessity of obtaining a separate approval for each new sign. The changing window sign program must also be consistent with the standards for permanent window signs. (see section 2.3 Permanent Window Signs)

A. Location:

A temporary window sign that extends from one panel of glass to another to convey a single message shall be allowed as long as it does not exceed the maximum allowable sign area for temporary promotional window signs.

B. Size:

Temporary or promotional window signage shall be compatible with glass dimensions and window mullion locations. Temporary signs shall be limited in size by the maximum allowable sign area of twenty-five percent (25%) of the overall window area for all signage. Sign area tabulation for all window signage (temporary and permanent) shall be reviewed and approved by the Landlord prior to installation.

C. Content:

Temporary sign content shall be consistent with Tenant's overall graphics and identity package.

D. Materials:

Temporary signs are generally vinyl, cloth, canvas and other lightweight materials. Colors and materials shall be subject to approval by the Landlord. Signs shall not be illuminated, luminescent or fluorescent.

2.5 ADDRESS SIGNAGE:

Each retail Tenant may have one (1) address displayed for the purposes of identification on primary business frontage. A six-inch high address identification with contrasting background shall be centered in the glass area directly above the door(s). A panel located at the rear service doors will include the address, name of store and receiving hours.

Tenant shall contact the City of Austin for specific requirements of Address signage.

3.1 SECTION INCLUDES:

- A. Signage must be constructed and installed to meet or exceed all applicable codes and City requirements.
- B. All penetrations of the building structure required for signage installation shall be neatly sealed and watertight. Color and finish of attachments and sealants shall match adjacent exterior finishes.
- C. Complete interior and exterior signage work, including permits, supports and mounting hardware and electrical connections, is included in the Contract Sum.

3.2 UNIT PRICES:

Furnish cost information for future purchases, guaranteed up to 1 year from substantial completion for all sign types. Include costs for items ordered individually as well as minimum order required to obtain price break.

3.3 SYSTEM DESCRIPTION:

- A. Provide "Sign" types of the size, material, images and arrangements made up of special and standard components and construction as shown on Drawings and specified.
- B. The Drawings depict general sign configuration, typography, graphic layout, and sign placement.
- C. Verify sign and copy length for proper fit. Notify owner's representative in writing of any discrepancies prior to fabrication.
- D. Materials shall be new stock, free from defects impairing strength, durability and appearance.
- E. Letters and signs to be structurally designed to resist 30PSF wind loads and thermal movements, without distortions or excessive deflections. Letter and sign fabrication is to be a complete system including stiffeners, fasteners, welding, sealants, jointing, miscellaneous pieces and material thickness required to form high quality workmanship. Connections, angles, shapes and details shown are suggestive and are to be sized, reinforced and detailed as required to meet design criteria. Details, anchors or devices not shown are to be submitted to owner's representative for review before fabrication.
- F. All fabrication and installation shall be in accordance with highest standards of the trade. All signs and components shall be complete and free from visual and mechanical defects, such as unfilled and unfinished seams or exposed fasteners.

3.4 SUBMITTALS:

- A. Manufacturer's Data: Submit manufacturer's product data sheets for each product or system.
- B. Shop Drawings: Prepare detailed shop drawings for each sign, including full size sections of typical members. Indicate fabrication joints, seams and fasteners and copy composition including letter and line spacing. Exact identification of all paints shall be noted on the Shop Drawings, together with data describing the method of applications, if other than "air" drying.
- C. Samples: Submit three sets of samples of each finish, color and lettering type required. Samples shall be of suitable size to accurately render these qualities.
- D. Submittal Schedule: Provide submittals as specified in the following schedule.

| Sign Types | Required |
|------------|----------|
|------------|----------|

| | |
|--------------------|---|
| ST1, ST3, ST7, ST8 | Structural drawings sealed by registered engineer. 6"x 6" color sample for each color on actual material as noted in drawings. 12"x12" sample of each non-painted material. Cut sheet of proposed lighting system. Shop drawings. |
|--------------------|---|

- E. Maintenance Instructions: Include written instructions for removal of signs attached to wall surfaces, including recommended methods for removal of residual adhesives.



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Page Title / Element Type
Part 3 – Sign
Specifications

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3.5 COORDINATION:

- A. Coordinate scheduled signage locations with field measurements.
- B. Coordinate signage locations with existing mechanical, electrical and plumbing elements.
- C. Field-verify final signage locations with fd2s and owner's representative before installation.

PART 4 - PRODUCTS

4.1 MATERIALS:

A. General:

- 1. Metal Surfaces: For the fabrication of general metal work that will be exposed to view, use only materials that are smooth and free of surface blemishes, including pitting, roughness, seam marks, and trade names. Unless the surfaces are to be painted, do not use materials with stains and discolorations.
- 2. Surface Flatness: For exposed items of work that include plain flat surfaces in width of more than 50 times the metal thickness, provide sheet stock from the mill that has been stretcher leveled to the highest standard of flatness commercially available.

B. Aluminum: AA Alloy 5052 or 6061T6 or as recommended to suit required service and finish.

C. Coatings:

- 1. Acrylic Polyurethane: Provide acrylic polyurethane consisting of ultra-violet inhibitors that are lightfast and weather-, abrasion-, and wear-resistant. Provide one of the following:
 - a. Matthews Paint, PPG Industries
- 2. Polyurethane Enamel: Provide polyurethane enamel consisting of ultra-violet inhibitors that are lightfast and weather-, abrasion-, and wear-resistant. Provide one of the following:
 - a. Chemglaze, Hughson Chemical Division, Lord Corp.
 - b. Imron, DuPont de Nemours & Co.
- 3. Translucent Sign Coating: Provide "Gripflex" manufactured by Wyandotte Paint Products Co.

D. Fasteners: Same base metal and finish as the metal work. For machine screws, comply with FS FFS92. For applications under 7'-0" from finished grade/floor use Flat Head Socket Cap or Flat Head Torx Drive screws and above 7'-0" from finish grade/floor use Phillips Flat Head unless otherwise noted in drawings. Where exposed and surrounding surface is painted, screws should be in-filled and painted to match surrounding surface. Where exposed and surrounding surface is not painted, raw unfinished material or clear coated metal, use stainless steel screws unless otherwise noted on drawings.

E. Anchors and Inserts: Furnish inserts to be set in concrete work, or provide other anchoring devices as required for the installation of signs as detailed on Drawings. Furnish cast iron or malleable iron or hot dip zinc coated inserts. Provide toothed stainless steel or zinc-and-chrome-plated high carbon steel expansion bolt devices for drilled-in-place anchors.

- 1. Universal Fastenings Corporation "Thunderstud"
- 2. Hilti Fastening Systems "Kwik Bolt"
- 3. Ramset "Dynabolt"

F. Steel:

- 1. Materials:
 - a. Steel pipe: ASTM A53, Type E.F., or G at fabricator's option, Grade A, black finish, unless otherwise shown as galvanized standard weight (Schedule 40).

b. Steel sheet for cold forming: ASTM A 569, hot-rolled sheet steel of commercial quality, pickled and oiled, free of defects that would impair the work.

c. Galvanized steel sheet: ASTM A 526, commercial quality.

2. Finishing:

a. Primer finish: Provide one of the following, unless steel indicated to receive galvanized finish:

(1.) Dimetecote No. 4; Arercite Corp.

(2.) Tnemec, Zinc 92; Tnemec Co. Carbo Zinc II; Carblinc Co.

b. Baked enamel finish: Manufacturer's standard baked enamel finish.

G. Adhesives:

1. Foam tape: 1/16" (unless otherwise noted) foam applied liberally to back of plaque.

2. Silicone adhesive: Ready to use, high performance adhesive. General Electric GE1200 sealant, translucent SCS 1201, as recommended by manufacturer for bonding condition.

3. Film tape adhesive: 4 mil (0.1 mm) thick, double-faced pressure sensitive film tape. No. 415; 3M Co.

4. Epoxy: Two component thermosetting epoxy adhesive with 100% solid content. NP - 428; Miracle Adhesive Corporation.

5. Poxyment: Acid Alkali resistant epoxy Kaiser Brand. C. E. Kaiser, (P.O. Box 94169, Houston, Texas).

H. Silk Screen Ink: Enamel inks shall be in colors and sheen as scheduled on drawings, manufactured by Naz Dar Co., (Chicago, Illinois).

I. Paint: Preparation, primer and semi gloss acrylic base finish coats to provide weather resistant finish guaranteed for one (1) year against pitting, peeling, or fading. Enamel coating provided for use on surfaces shall have properties of moisture-resistance in all weather conditions and shall be guaranteed for one (1) year against pitting, peeling or fading.

1. Provide primer coats or other surface pretreatments, where recommended by paint manufacturer.

2. No paints that will fade, discolor or delaminate as a result of ultraviolet light, heat, cold, or humidity shall be used.

3. Paints required for lettering, including silk-screens and imprinted surfaces, shall be a type made for the surface material on which it is applied and recommended by the manufacturer of the paint.

J. Acrylic: Furnish acrylic in the thickness and finishes as specified and as manufactured by the one of the following:

1. Rohm and Haas

2. Mitsubishi Rayon Co., LTD.

K. Flexible Substrate for Flexbase System: 3M Panaflex series 940GPS should be used in addition to a 3M Scotchcal Matte Overlamine 3642GPS for protection.

L. Vinyl Die-Cut Characters: Pre-spaced die-cut letters of 3M Scotchcal film in 3.5 mil thickness, selected from standard colors; Gerber Scientific or Avery Graphics; Typeface and spacing as noted on Drawings.

M. Protective Finish: For metal surfaces noted to receive protective clear finish, apply two coats clear acrylic lacquer. Coating to be compatible with inks or paints applied to surfaces.

N. Reflective Vinyl: All reflective vinyl shall be Engineer Grade unless otherwise noted on drawings.

O. Metal Mesh: McNichols Metals, Lock Crimp. Openings to be .375" x .375," 2 mesh per linear inch, diameter of wire: .092, width of opening: .4080, open area percent: 66.6%, weight per 100 sq. ft: 110.2lbs.



4.2 FABRICATION

- A. All visible joints shall be ground, filled and finished flush and smooth with adjacent work. Such seams shall be invisible after final finish has been applied. Spot-welded joints shall not be visible on exterior of signs after final finish has been applied. No gaps, light leaks, waves, or oil canning will be permitted in the work.
- B. Execute fabrication in such a manner that all edges and corners of finished letter forms and sign substrates are true and clean. Letterforms and signs with rounded positive and negative corners, nicked, cut or ragged edges, bent or distressed edges will not be accepted.
- C. Finished surfaces shall have a smooth, even finish free of irregularities.
- D. Execute silkscreen printing from photo-screens or negatives prepared per specification and drawings by signage fabricator. Pattern cut screens may be used where non-repeat copy is required; however, copy mask shall be equivalent to photo-screen quality. Do not use images on Contract Documents as camera-ready art.
- E. Execute silkscreen printing in such a manner that edges and corners of finished letterforms are true and clean. Letterforms with rounded positive or negative corners, edge buildup or bleedings, will not be accepted.
- F. Align letterforms to maintain a baseline parallel to the sign format. Margins must be maintained as specified by sign type layouts.
- G. Letterform edges shall be sharp and clean with no edge buildup or bleeding. Surfaces of letterforms shall be without pinholes.
- H. Cut-out copy shall be cut from rolled sheet of specified gauge, all edges of copy to be perpendicular to copy face, ground smooth and polished to finish as noted on Drawings and schedules.
- I. Welding shall be of the correct type to minimize permanent distortions of flat surfaces. Remove welding flux, oxides, and discolorations by pickling or grinding, so that these areas match the finish of the adjacent areas. Repair damage caused by fabrication by grinding, polishing or buffing.
- J. Primer coats or other surface pre-treatments, where recommended by the manufacturer for paints, shall be included in the work.
- K. Apply paints evenly without pinholes, orange peeling, scratches, application marks, and other imperfections.
- L. Apply adhesives in accordance with recommendations of the manufacturer of the material specified to be laminated or adhered. Visible joints shall be free from air bubbles and other defects.

4.3 WEATHER PROOFING:

- A. Water & Humidity: All exterior sign cabinets shall be sealed so as to prevent rain water contamination. Proper venting and drainage shall be provided for humid or wet locations for all exterior or interior sign cabinets. All exposed metal surfaces shall be protected from oxidation.
- B. Heat & Cold: All material used shall be rated to withstand typical hot or cold conditions associated with the region in which they will be installed.
- C. Sign fabricator shall not be held liable for any damages caused by natural disasters such as, but not limited to, tornados, hurricanes, earthquakes, flooding and the like, unless otherwise noted on the drawings.

4.4 ELECTRICAL COMPONENTS:

- A. All electrical signage shall bear the Underwriters Laboratories (UL) label of approval.
- B. All raceways, transformers, electrode boxes, switches, wiring, conduit and access hatches shall be concealed. Electronic components that produce or radiate heat shall be properly vented in accordance with the manufacturer's guidelines. Care should be taken to select equipment that is rated to withstand typical environmental conditions associated with the region or location in which they will be installed.
- C. Coordinate electrical components and demands with building power supplies.
- D. Tenant's electrified signage shall be connected to the Tenant's house panel and controlled by a time clock or energy management system.

4.5 PROTECTION:

Protect exposed finishes by covering with adhesive paper or other suitable covering prior to shipment from the fabricator or finishing shop.

5.1 EXAMINATION:

A. Examine signs for evidence of damage at the site before installation.

B. Examine the conditions and substrates under which the installation is to be performed for unsatisfactory conditions. Do not proceed with the work until the unsatisfactory conditions have been corrected or subsequent change of location has been approved by the owner's representative.

5.2 INSTALLATION:

A. Provide custom manufactured sign assemblies, components, completely fabricated and finished at factory before delivery to site. Fit and assemble the Work at the shop to the greatest extent possible. No site application or finishing will be permitted except for touch-up. Exposed fasteners on finished faces will not be allowed, unless specifically indicated. Waviness and oil canning of surfaces is not acceptable. Minimum material thickness is to be 0.090 inches. Conceal wiring, conduit and other electrical items within sign enclosures.

B. Install letter and sign units and components at locations shown or scheduled, securely mounted with concealed fasteners, unless otherwise shown. Attach signs to substrates in accordance with manufacturer's instructions, unless shown. Provide anchorage and fitting.

C. Install, level and plumb at the proper height. Cooperate with other portions of the Work for installation of sign units to finish surfaces.

D. Protect adjacent surfaces from damage during installation.

5.3 ADJUSTING AND CLEANING:

A. Following installation, remove all traces of visible tapes, adhesives, wrappings or refuse from the installation.

B. Repair damaged signing surfaces and materials to restore to original condition and appearance. Replace materials that cannot be properly restored.

5.4 PROTECTION:

A. Protect signs installed in incomplete areas where construction is still under way.



APPENDIX F4

MUELLER MARKET DISTRICT SIGNAGE CRITERIA

MUELLER

AUSTIN TEXAS

REVISED AUGUST 2011

Disclaimer:

These Signage Guidelines are envisioned as a dynamic document that will continue to evolve in response to changing conditions and circumstances. As such, it is anticipated that over the life of the community, the guidelines herein will be refined, waived or amended to incorporate new conditions, special opportunities and/or circumstances.

Neither the Master Developer nor the City has made or makes any representations or warranties of any kind or character, express or implied, with respect to this manual.

Mueller Market District Environmental Section 2 - Tenant Facade Signage



MUELLER MARKET DISTRICT
AUSTIN, TEXAS

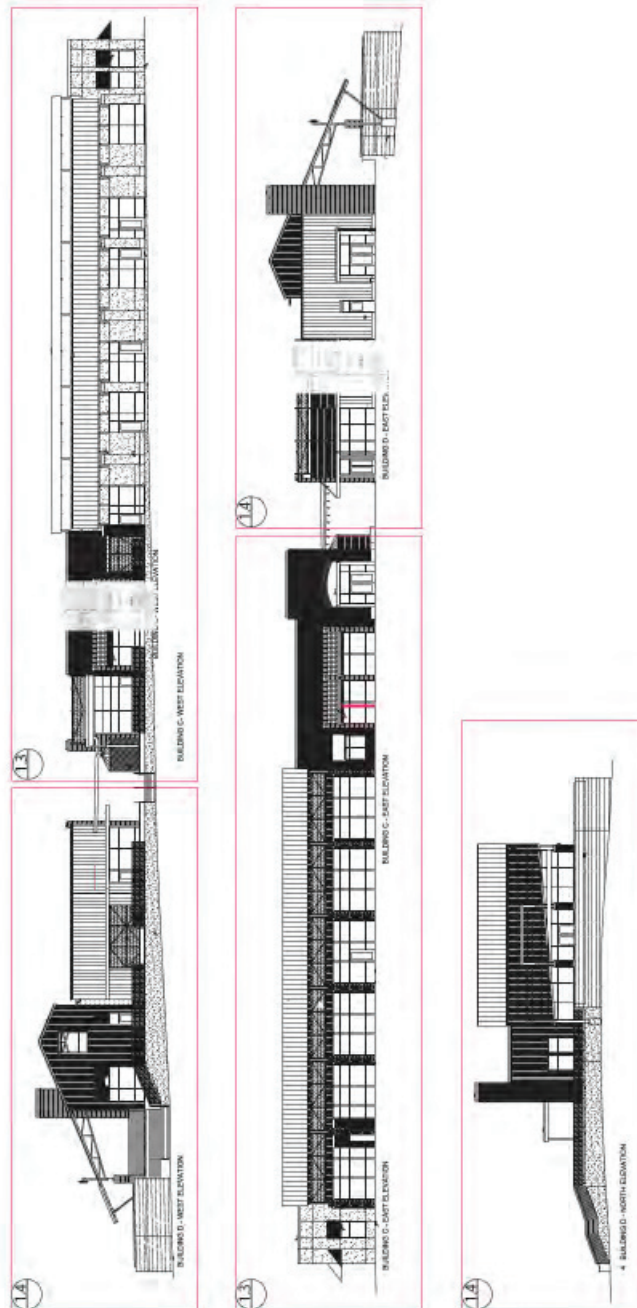
Start Date: 11/02/2011
Last Revision: 8/3/11
Job#: 4314561
Drawing #: directional-04

Design/
Ben Anglin
Sales/
Robert Macdonald
Bob Strubeck



MUELLER MARKET DISTRICT / SIGNAGE ALLOWANCES / AUSTIN, TEXAS

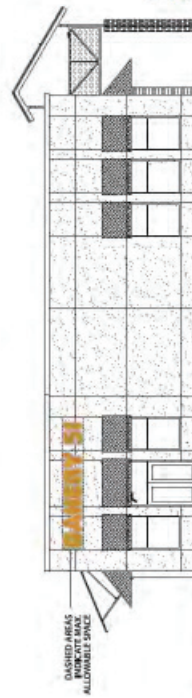
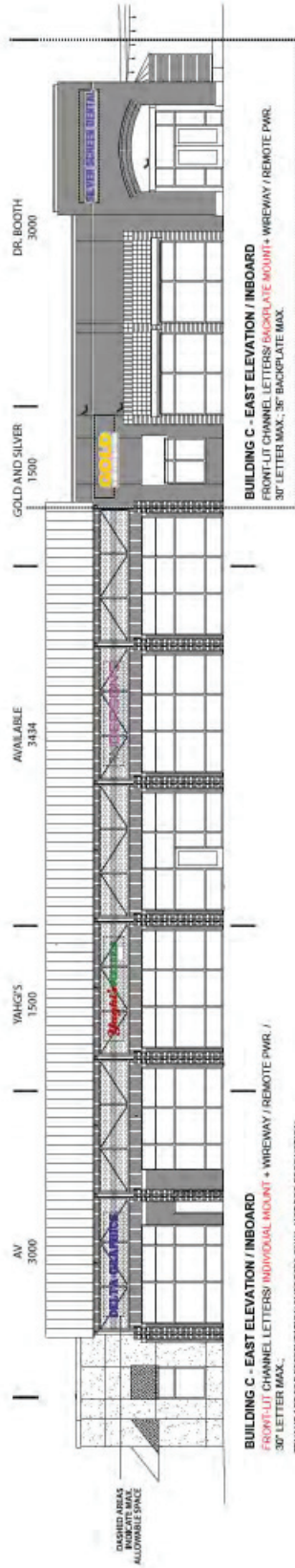
1.1 BLDG. D & C / FULL ELEVATIONS
SCALE: 1/32"



MUELLER MARKET DISTRICT / SIGNAGE ALLOWANCES / AUSTIN, TEXAS

BLDG.C

1.3 SIGN AREAS PER TENANT; MAX. ALLOWANCES
SCALE: 1/16"



MUELLER MARKET DISTRICT
AUSTIN, TEXAS

Start Date: 11/09/2011
Last Revision: 8/7/2012
Job #: 9215461
Drawing #: 9215461
e4e_c1.pdf

Design/
BEN ANGELIN
Sales/
ROBERT MACDONALD
BOB STROBECK

Revision Hist.
1)
2)
3)

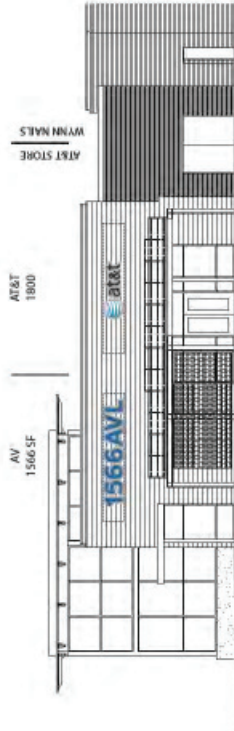
SIGN ALLOWANCE FORMULA: (STOREFRONT LENGTH x 75%) is the Maximum allowable sign length;
30\"/>



17 SIGN AREAS PER TENANT. MAX. ALLOWANCES
SCALE: 1/16"



BUILDING A - WEST ELEVATION / OUTBOARD
REVERSE CHANNEL LETTERS / BACKPLATE MOUNT + WIREWAY / REMOTE PWR.
30" LETTER MAX, 36" BACKPLATE MAX.
TENANT ART FOR PRESENTATION PURPOSES ONLY. NOT FOR PRODUCTION.



BUILDING A - SOUTHWEST ELEVATION / OUTBOARD
REVERSE CHANNEL LETTERS / BACKPLATE MOUNT + WIREWAY / REMOTE PWR.
30" LETTER MAX, 36" BACKPLATE MAX.
TENANT ART FOR PRESENTATION PURPOSES ONLY. NOT FOR PRODUCTION.

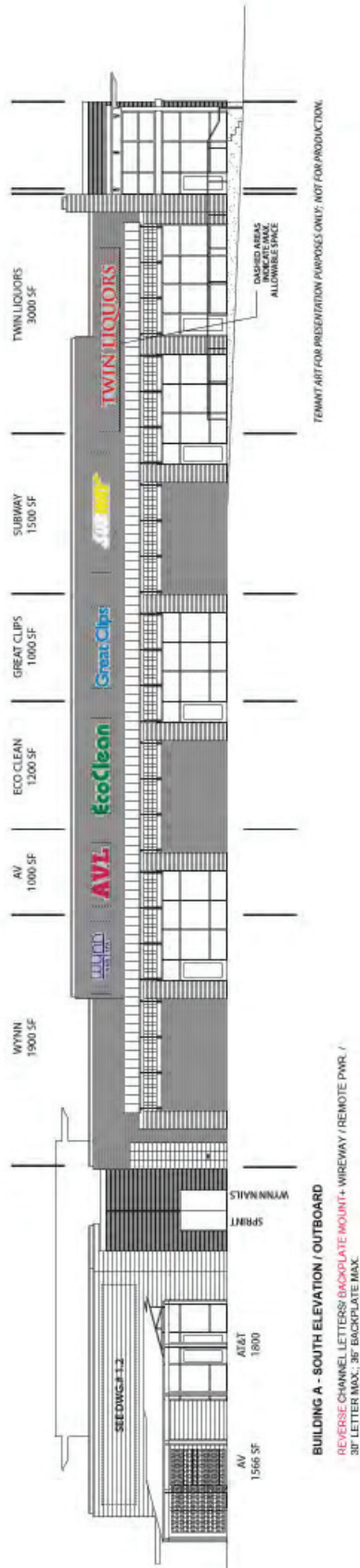
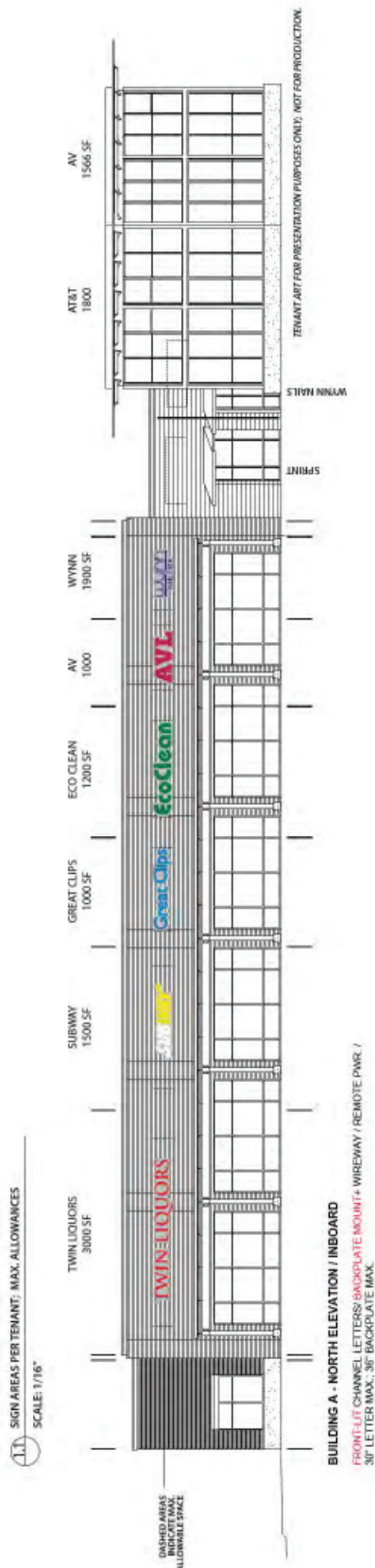
TWIN LIQUORS
3000 SF



BUILDING A - EAST ELEVATION / INBOARD
FRONT-LIT CHANNEL LETTERS / INDIVIDUAL MOUNT + WIREWAY / REMOTE PWR. /
30" LETTER MAX.
TENANT ART FOR PRESENTATION PURPOSES ONLY. NOT FOR PRODUCTION.

MUELLER MARKET DISTRICT / SIGNAGE ALLOWANCES / AUSTIN, TEXAS

BLDG. A



MUELLER MARKET DISTRICT
AUSTIN, TEXAS

Start Date: 11/02/2011
Last Revision: 8/7/2012
Job #521
Drawing #521

Design/
Ben Anglin
Sales/
Robert MacDonald
Bob Strobeck

Revision Hist.

1)
2)
3)

SIGN ALLOWANCE FORMULA:

- STOREFRONT LENGTH x 75% is the Maximum allowable sign length;
- Maximum channel letter height to be 18";
- Backspan to have a 3" outline spread around letter perimeter;
- A logo-graphic (in addition to letters) may be 36" Max.



Mueller Market District

Environmental

Section 2 - Tenant Facade

Signage

Disclaimer:

These Signage Guidelines are envisioned as a dynamic document that will continue to evolve in response to changing conditions and circumstances. As such, it is anticipated that over the life of the community, the guidelines herein will be refined, waived or amended to incorporate new conditions, special opportunities and/or circumstances.

Neither the Master Developer nor the City has made or makes any representations or warranties of any kind or character, express or implied, with respect to this manual.



MUELLER MARKET DISTRICT
AUSTIN, TEXAS

Start Date: 11/06/2011
Last Revision: 6/3/11
Job #: 4204661
Drawing #: directional04

Design/
Ben Anglin
Sales/
Robert MacDonald
Bob Strobeck



I. General Sign Criteria

A. INTRODUCTION

These criteria have been developed to guide each Tenant to an imaginative signage solution. The guidelines established herein will ensure that Tenant identification is of consistent quality and is compatible with the architectural character of the Center. Each proposed sign will be evaluated on the design's excellence and compatibility with neighboring signs and the overall character of the Center's signage/graphics.

1. Primary Tenant Identification Sign Options for Storefront (Inboard) area of the Center:
 - a. FACE CHANNEL LETTERS (INBOARD)
 - b. Face, trimcap and return same color
2. Primary Tenant Identification Sign Options for Storefront (Outboard) area of the Center:
 - a. Reverse channel, halo-lit, pin-mounted letters. (Outboard)
3. Secondary Tenant Sign Options for Store fronts and side building fascia:
 - a. Blade Sign.
 - b. Entry door/store front window signage.

B. SUBMITTALS & APPROVALS

1. All Tenant signage is subject to the Landlord's written approval and the New Construction Council (NCC) approval. The Landlord's approval shall be based on the following criteria:
 - a. Design, fabrication and method of installation of all signs shall conform to this sign criteria.
 - b. This sign criteria shall conform with the design standards of the Center and shall be in harmony with adjacent signage conditions.
1. The Tenant agrees to conform to the following procedures and submission requirements to secure the Landlord's approval:
 - a. Submit one (1) set of detailed sign design and shop drawings (hard and electronic) to:

MUELLER COMMUNITY MANAGER
contactus@muelleraustin.com
4550 Mueller Blvd.
Austin, TX 78723
 - b. Sign drawings are to be professionally prepared.
 - c. Sign drawings must include a min. 1/8" scaled storefront drawing illustrating the proposed sign design and over all dimensions as they relate to the storefront elevation of the Tenant's premises.

- d. Sign drawings must also include a min. 1" = 1'- 0" sign elevation and section through sign indicating construction, attachment methods, all sizes, and illumination details.
 - e. Letters must be accurately dimensioned and spaced.
 - f. Sign colors, paint finishes, and types of materials must be noted on the sign drawings. All signs (size, design, type and color) are subject to Landlord's and NCC approval, based on aesthetic and relationship to neighboring Tenant signs.
 - g. Unless the Landlord has received the above described drawings and information in the quantities set forth above, the Landlord will not approve the Tenant's exterior sign.
2. All drawings and samples marked "Disapproved" or "Revise and Resubmit" must be resubmitted as set forth above in Section "B" with the required corrections prior to fabrication. Only after all drawings have been marked "Approved" may the fabricator proceed with fabrication per approved drawings and.

The Tenant and Sign Contractor will not be permitted to commence installation of the exterior sign unless all of the following conditions have occurred:

- a. A stamped set of final drawings reflecting the Landlord's approval has been issued.
 - b. Fabricator/Tenant shall be responsible for the securing of all applicable sign permits required by the City of Austin Sign Ordinance prior to fabrication of the signs.
 - c. The Fabricator must provide to the Landlord a copy of the City of Austin issued sign permit.
 - d. Tenant's Sign Contractor is required to contact the Landlord 24 hours in advance prior to the sign installation. Contact: Mueller Community Manager: contactus@muelleraustin.com
4550 Mueller Blvd.
Austin, TX 78723
 - e. The Landlord must receive the sign company's Certificate of Insurance as set forth in Section "D".
2. The Landlord reserves the right to revise this Signage Criteria in accordance to any changes to the City of Austin Sign Ordinance. The Signage Criteria may be revised at any time if so required by any governmental agency having jurisdiction over its contents.
3. In the event Tenant changes their exterior sign at any time during the term of their lease, Tenant must comply with any future modifications, revisions or changes which have been made to the Signage Criteria for the Center after the execution of their Lease Agreement. Tenant must submit for approval for any changes and abide to the terms of this document.
4. The Tenant shall pay for all signs, their installation, all associated labor, materials, and future maintenance.
5. The Tenant and their Sign Contractor are responsible for understanding this Signage Criteria and conforming to its requirements.
6. The Tenant shall be ultimately responsible for the fulfillment of all requirements and specifications, including all applicable building and electrical codes.
7. All signs shall be reviewed for conformance with this criteria and overall design quality. Approval or disapproval of sign submittals based on aesthetic of design shall remain the sole right of the Landlord or his authorized representative.

C. FABRICATION, INSTALLATION, AND REMOVAL REQUIREMENTS

The fabrication and installation of all signs shall be subject to the following restrictions:

1. All signs mounted on concrete, EFIS, brick, or metal clad substrates are to be mechanically attached. Mechanical hardware must be approved for the method used as detailed on sign contractors approved art.
2. All penetrations of the building structure required for sign installation shall be sealed in a watertight condition. No roof membrane penetrations are allowed without written landlord approval. A single penetration per lease space elevation is allowed with coordination of Landlord's roofing contractor. It is the tenants responsibility for all cost associated with the roofing contractor.
3. All flat cut out metal letters, logo plaques and registered trademark symbols (where allowed herein) are to be fabricated from 1/8" thick aluminum with concealed pins, mounted to wall surface. Painted components must have two coats of acrylic polyurethane automotive paint. Refer to Section III for specific finish requirements.
4. Ladders, installation equipment and installation crews are not permitted to lean on metal cladding or EFIS portion of the building and storefronts. All installation equipment, in these areas, must be freestanding type to avoid contact with or damage to building or storefront.
5. Installation crews are responsible for establishing a safety zone around their work area. Crews must possess caution tape and safety cones and utilize these safety devices to secure walkways and doors. Electrical cords cannot be run outside of this zone.
6. Each Tenant, and or Sign Contractor, shall be responsible for the repair of any damage to the building caused by the installation of said Tenant's sign. If required repairs of the installation area, these will be back-charged to Tenant.
7. The installation Sign Contractor is responsible for removing all debris and cleaning the work area after installation is complete.
8. The Sign Contractor must check sign to ensure proper illumination, prior to leaving the site, where applicable.
9. Each Tenant shall be responsible for the performance of its Sign Contractor.
10. Each Tenant shall be responsible for removal of its sign within three (3) days after vacating site. Removal of the sign shall include the repair of the wall surface back to its original condition. If Tenant does not repair wall surface to Landlord's satisfaction, Landlord will perform repairs at Tenant's expense.
11. Each Tenant shall be responsible for the installation and maintenance of its sign. Should the Tenant's sign require maintenance or repair, Landlord shall give Tenant fifteen (15) days written notice to effect said maintenance or repair.
12. If the roof must be penetrated, it is the responsibility of the sign installer to inform Landlord before any work is performed. The roofing contractor shall be the only one to re-seal the roof to preserve warranties.
13. It is the responsibility of the installer to repaint the hole patches on the building. Current building colors can be verified with Center Management.
14. It is strongly recommended that either the Tenant or its sign contractor used Landlord's approved sign contractor for patching, repairing and repainting the storefront sign band.:

D. INSURANCE

Sign Contractor shall provide Landlord in accordance with insurance requirements of Tenant under Tenants lease with Landord with Certificate of Insurance naming Landlord and other designated party as additional insured.

All liability policies shall name the following as “additional insured”:

CATELLUS MARKET DISTRICT, LLC; WELLS FARGO BANK, NATIONAL ASSOCIATION

E. NON-CONFORMANCE

1. No field installation changes are permitted without first notifying Landlord in writing. If any sign is changed as to placement, location and/or size that differ from approved sign plan, Tenant and/or Sign Contractor will be responsible for repair, change, and/or relocation of sign to proper placement at their expense.
2. Any sign that is installed by Tenant which is not in conformance to the approved drawings shall be corrected by Tenant within fifteen (15) days after written notice by Landlord. In the event Tenant's sign is not brought into conformance within said fifteen (15) day period, then Landlord shall have the option to correct non-conforming sign at Tenant's expense.

II. Basic Signage & Sign Lighting

A. SERVICE/DELIVERY ENTRANCE SIGNAGE

B. TEMPORARY SIGNAGE

1. Temporary Promotional Signage on Exterior of Store

- a. No temporary promotional exterior store identification signage is allowed.
- b. Exterior banners for promotional purposes are prohibited, excluding banners within store interiors.
- c. “A-frame”, poster holder or other types of freestanding signs may not be placed outside of the Lease Line at any time. The Lease Line is defined as the boundary between storefront glazing and entrance doors, and common areas.
- d. No merchandise shall be placed outside of Lease Line (see Item C above).

2. Temporary Promotional Signage Inside Store Only

- a. All temporary signage requires that an application be completed and submitted to Landlord for review and approval of Promotional Sign Variance.
- b. Each variance shall be limited to two weeks, and upon expiration may be renewed once with proof of supporting advertising (4 weeks maximum).
- c. The total area of promotional signage is limited to 1 square foot per lineal foot of store frontage.

- d. All temporary promotional signage must be professionally produced. Handmade or personal computer graphics signs are prohibited.
- e. Promotional signs affixed in any manner to storefront windows or entry doors are prohibited. Such signs intended to be visible through storefront windows may be temporarily suspended with aircraft cable or monofilament no closer than 12" from the inside of the window. The Landlord reserves the right to remove any promotional material that is visible through the storefront windows which is deemed to be inconsistent with the quality level of the Center.
- f. Individual sign panels must be spaced a minimum of 6' from one another.
- g. Fabric of light weight posters must be weighted. Curled sign materials are not permitted.

C. PROHIBITED SIGNS

1. Signs constituting a traffic hazard.

No person shall install or cause to be installed or maintain any sign which simulates or imitates in size, color, lettering or design, any traffic sign or signal, or which makes use of the words "Stop", "Look", "Danger", or any other words, phrases, symbols or characters in such a manner to interfere with, mislead or confuse traffic.

2. Immoral or Unlawful Advertising.

Immoral or Unlawful Advertising is not permitted. It shall be unlawful for any person to exhibit, post or display, cause to be exhibited, posted or displayed upon any sign, anything of any obscene, indecent, or immoral nature or unlawful activity.

3. Common area signs.

No signs will be permitted in the common area in front of store. No signs shall be installed, relocated, or maintained so as to prevent free ingress to or egress from any door.

4. Animated, Audible or Moving Signs.

Animated, Audible or Moving Signs consisting of, or giving the effect of moving, swinging, rotating, flashing, blinking, scintillating, fluctuating or having animated light area must have approval in writing by the General Manager.

5. Off-Premise Signs.

Any sign installed for the purpose of advertising a project, event, person or subject occurring off the Center property is prohibited unless approved in writing by the General Manager.

6. Vehicle Signs.

Signs on or affixed to trucks, automobiles, trailers or other vehicles which advertise, identify or provide direction to a use or activity not related to its lawful making of deliveries of merchandise or service, are prohibited.

7. Light Bulb Strings and Exposed Tubing.

Storefront display lighting (other than temporary, decorative holiday lighting) which consist of unshielded light bulbs, open, exposed neon or gaseous light tubing are prohibited. An exception hereto may be granted by Landlord with prior written approval when the display is an integral part of the design character of the activity to which it relates.

8. Credit Card/Telecheck/Security Signage.

Vendor provided adhesive signs are prohibited on entry doors or display windows, except as allowed under Section III.A.3.b.

9. Letter Painting on Facade.

Lettering painted directly on building facade will not be permitted except as defined in this criteria.

10. Hand-lettered signs

Unprofessional hand-lettered signs are prohibited in public view from the storefront. Absolutely no signs are permitted to be taped to the storefront or any visible surface.

11. Inventory Liquidation Signs.

“Going Out of Business”, “Bankruptcy Sale”, “Closing This Store”, “Lost Our Lease”, etc. signs are strictly prohibited.

12. Flyers.

Distribution of flyers, for any purpose, outside of Tenant's leased premises unless specifically authorized by Landlord is prohibited.

13. Neon or Internally Illuminated Signs.

Unless specifically approved by the Landlord, neon or internally illuminated signage is prohibited inside stores.

14. Box-type cabinet

No box-type cabinet signs will be permitted unless specifically provided for herein.

15. Miscellaneous

- Air inflated devices
- Pennants
- Whirling devices
- Any other miscellaneous device resembling the above items

III. Specific Tenant Signage

A. STOREFRONT SIGNAGE

1. GENERAL SIGN CRITERIA

- a. All Tenants to have storefront signs. Signs shall be located only on the space(s) and on the surfaces specifically provided in attachment drawings
- b. Square footage for Tenant wall signs shall be based on the maximum sign lengths and letter heights as defined in attachment drawings and subject to building configuration and materials.

(1) Each Tenant to have:

Building “A”

- One (1) primary Storefront sign. (Inboard)
- One (1) secondary store front sign (Outboard)
- One (1) secondary sign: Blade sign. (Optional in select areas)

Building “B”

- One (1) primary Storefront sign. (Inboard)
- One (1) secondary store front sign (Outboard)
- One (1) secondary sign: Blade sign. (Optional in select areas)

Building “C”

- One (1) primary Storefront sign. (Inboard)

- One (1) secondary store front sign (Outboard)
- One (1) secondary sign: Blade sign. (Optional in select areas)

Building "D"

- One (1) primary Storefront sign. (Inboard)
- One (1) secondary store front sign (Outboard)

Specific Tenant locations (such as towers or corner spaces at ends of buildings) with more than one frontage and/or entry, may be allowed one sign on each frontage provided architectural treatments at each location can accommodate a sign. Subject to Landlord and NCC approval and City of Austin review.

Consideration for moderate increases to maximum sign or letter heights may be given to Tenants with logotypes which have larger initial capital letters or other unique features.

- c. Signs shall be limited to letters designating the store name as set forth in signed lease documents between Tenant and Landlord.
 - (1) Tenant shall display their established registered trade name(s) only.
 - (2) Registered Trademark Symbols are permitted subject to Landlord review/approval fabrication requirements.
- d. The color of all lettering and/or sign panels shall be compatible with the building color ,or contour backer panel, and provide sufficient contrast to which the sign is mounted.
- e. Logo plaque components used in conjunction with individual letters are considered an integral part of the store identity and are included in the calculation of allowable sign area, subject to Landlord's approval.
- f. Individual shop address numerals will be provided and installed by the Landlord on the storefront of the Tenant space, and are not included in calculation of allowable for wall signage

2. PRIMARY STOREFRONT SIGNAGE

Type A: Face Channel letters on contour panel / wireway

(INBOARD signs where permitted on Building A,B,D)

- a. **Face Illuminated Channel letters** shall have a depth of 5" and shall be mounted flush to contour backer panel. Letters shall be fabricated from .63" aluminum backs face and .040" side walls. All penetrations to be sealed in a watertight condition thru the contour backer panel. Letters. 5" deep Illuminated capsules with acrylic faces and vinyl copy or 5" Reverse Capsules with routed out copy and backed with acrylic mounted directly to contour panel, may be approved by Landlord.

- b. **Lighting:** signs letters are to be face illuminated using LED's with remote power supplies. The sign's electrical components: wiring, power supplies etc. should be fully waterproof even when mounted on the interior side of the wall.
- c. **Contour Backer Panel** shall be fabricated of min. .090" aluminum. Contour shape will outline 3" beyond the shape of letters and shall cover the wireway by at least 3". All outside corner will be radius-ed. Contour panel will be painted Matthews Brushed Silver.
- d. **Letter Colors** shall be contrasting to contour backer plate. Acrylic Face, Sidewalls, and Trimcap shall have same color. Landlord must approve color. Acrylic Face may have a first surface Vinyl applied. Trimcap and side walls much match. Digital Print faces are not allowed.
- e. **Sign Wireway** will be used behind backer panel to conceal secondary wiring. 2" depth is required and height shall not exceed $\frac{3}{4}$ of the maximum allowed copy height. Wireway shall not be exposed at any point and shall maintain a minimum distance of 3" from the edge of the Contour backer Panel.
- f. **Secondary Electrical** penetration will not exceed a single hole 1/2" conduit per individual sign section. Remote power supplies shall be mounted behind sign fascia. Penetration of roof Membrane must be coordinated with Landlord and Landlord's Roofer Prior to installation. Landlord will provide a single uni-strut on back of fascia parapet for mounting any power supply enclosures, conduits, and electrical hardware. Any mounting of these electrical components and hardware other than the supplied uni-strut is prohibited without Landlord approval.
- g. **Tenant signs location** to be centered within lease lines or as indicated architecturally on facade as shown in Tenant Exhibit Drawings, unless noted otherwise by Landlord. Horizontal location are determined by Tenant Exhibit Drawings.
- h. **Length:** The length of individual Tenant signs on storefronts shall not exceed 75% of Tenant's storefront width or maximum allowed length as directed in Tenant Exhibit Drawings.
- i. **Height:** Maximum letter heights are 30" for single line copy and 30" overall for double line copy. Maximum contour panel height 36" or as approved by Landlord.
- j. Notwithstanding the above criteria, no sign shall exceed City of Austin criteria.

Type B: Individual Face Channel letters on building Perforated panels

(INBOARD signs where permitted on Building C)

- k. **Individual Face Illuminated Channel letters** shall have a depth of 5" and shall be mounted flush existing building Perforated panels. Letters shall be fabricated from .090" aluminum backs face and .063" side walls. Welded construction. All penetrations and mounting shall hit existing 1/2" perforated holes. Landlord will furnish electronic file indicating perforated hole placement. Logos and capsules are limited to mounting directly above Landlord furnished Raceway.
- l. **Lighting:** signs letters are to be face illuminated using LED's with remote power supplies. The sign's electrical components: wiring, power supplies etc. should be fully waterproof.

- m. **Letter Colors** shall be contrasting to perforated building backer. Acrylic Face, Sidewalls, letter backs, and Trimcap shall have same, single matching color. Acrylic Face may have a first surface Vinyl applied. Digital Print faces are not allowed. Landlord must approve color
- n. **Sign Raceway** will be Furnished behind perforated panel to conceal secondary wiring and power supplies. Raceway will be mounted centered of panel horizontally and run continuous the full building length. Race way height 7", Depth 4". Landlord will furnish electrical conduit from the raceway to just inside the Inboard store fascia.
- o. **Secondary Electrical** penetration will not exceed hole diameter 1/2". Remote power supplies shall be mounted furnished Raceway. Raceway is permanently mounted 4" beyond the perforated panel. Electrical pass thru may be achieved using trade name "Wall Busters" for all secondary wiring. Any drilling of the building perforated is prohibited.
- p. **Tenant signs location** to be centered within lease lines or as indicated architecturally on facade as shown in Tenant Exhibit Drawings, unless noted otherwise by Landlord. Horizontal location are determined by Tenant Exhibit Drawings.
- q. **Length:** The length of individual Tenant signs on storefronts shall not exceed 75% of Tenant's storefront width or maximum allowed length as directed in Tenant Exhibit Drawings.
- r. **Height:** Maximum letter heights are 30" for single line copy.
- s. Notwithstanding the above criteria, no sign shall exceed City of Austin criteria.

Type C: Reverse Channel letters mounted to backer panel / wireway, "halo illumination"
(OUTBOARD signs where permitted on Building A,B,C,D)

- t. **Reverse letters** shall have a depth of 3" and shall be pinned off contour backer panel 2" with blind fastener attachments. Letters shall be fabricated from .125" face and welded .063 side walls. All seams shall have stitch welds construction. Mount with pin or "all-thread" post, sleeved, with maximum 1/2" o.d. Spacers, painted to match Matthews Brushed Silver. All penetrations to be sealed in a watertight condition thru the contour backer panel. Letters will have a white polycarbonate back. Reverse capsules with routed, white copy may be approved by Landlord. No colored illuminated copy allowed.
- u. **Lighting:** signs are to be "halo lit", using white LED's with remote power supplies. The sign's electrical components: wiring, power supplies etc. should be fully waterproof even when mounted on the interior side of the wall. LED's shall maintain a Kelvin Temperature range between 6000k – 7000k.
- v. **Contour Backer Panel** shall be fabricated of min. .090" aluminum. Contour shape will outline 3" beyond the shape of letters and shall cover the wireway by at least 3". All outside corner will be radius-ed off. Contour panel will be painted Matthews Brushed Silver.
- w. **Letter Colors** shall be contrasting to contour backer plate. Face and sidewalls shall have same color. Landlord must approve color. Other approved colors are Wells Fargo black MP 26309 satin and Deep River grey MP 07102 satin.
- x. **Sign Wireway** will be used behind backer panel to conceal secondary wiring. 2" depth is required and height shall not exceed ¾ of the maximum allowed copy height. Wireway shall not be exposed at any point and shall maintain a minimum distance of 3" from the edge of the Contour backer Panel.

- y. **Secondary Electrical** penetration will not exceed a single hole 1/2" conduit per individual sign section. Remote power supplies shall be mounted behind sign fascia.
- z. **Tenant signs location** to be centered within lease lines or as indicated architecturally on facade as shown in Tenant Exhibit Drawings, unless noted otherwise by Landlord. Horizontal location are determined by Tenant Exhibit Drawings.
- aa. **Length:** The length of individual Tenant signs on storefronts shall not exceed 75% of Tenant's storefront width or maximum allowed length as directed in Tenant Exhibit Drawings.
- bb. **Height:** Maximum letter heights are 30" for single line copy and 30" overall for double line copy. Maximum contour panel height 36" or as approved by Landlord.
- cc. Notwithstanding the above criteria, no sign shall exceed City of Austin criteria.

3. SECONDARY STOREFRONT SIGNAGE (THE BLADE SPECS NEED TO BE REWRITTEN)

Blade Signs:

The Tenant is required to submit shop drawings detailing materials, dimensions, styles, spacing sections, letter height, width, and depth, PMS colors and typestyles for a double-faced "Blade Sign".

- (1) The purpose of the blade signs is to identify the store entrance to shoppers along pedestrian paths.
- (2) The size of the sign shall be limited to 6 square feet per sign face. Maximum height and width of sign determined by bracket type and location. The thickness of the sign background must be at least 1". All letters on blade sign to be dimensional (minimum 1/8").
- (3) The shape of the blade signs should differ from Tenant to Tenant. Each Tenant's sign should be specifically designed to complement their individual style, emphasizing their corporate identity and/or product.
- (4) Tenants must provide blade sign design shop drawings to Landlord for approval.
- (5) Each blade sign is illuminated by external light sources. The servicing and replacement of the light source is performed by Landlord at Tenant's expense.

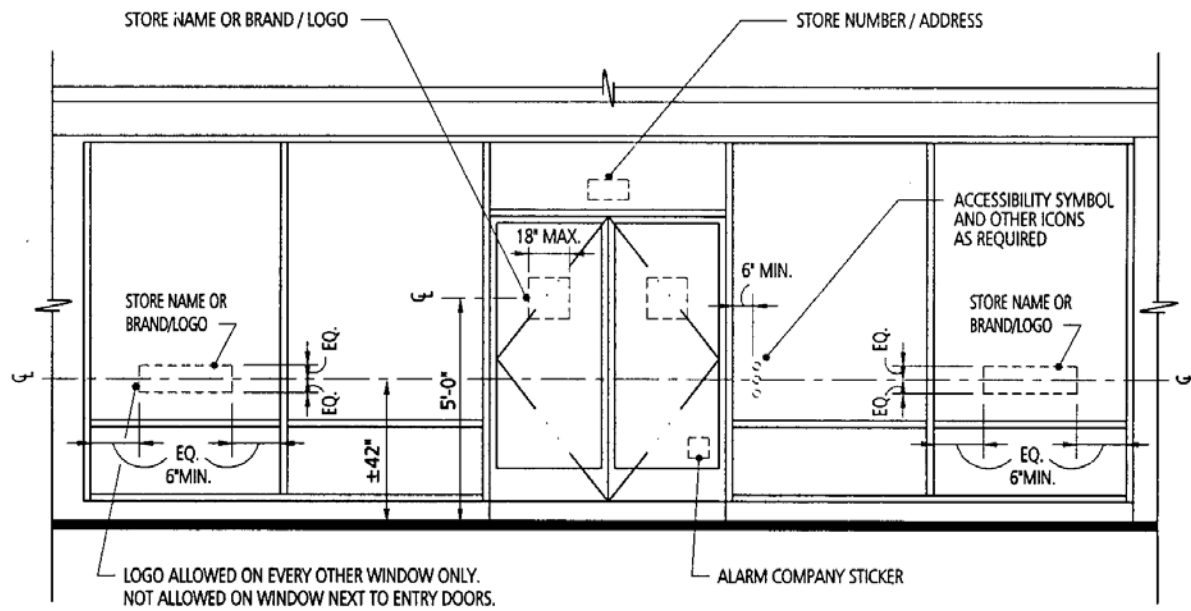
a. **Entry Door/Storefront Window Signage**

- (1) For the purpose of store identification, the Tenant may propose to the Landlord a design layout of Tenant name and/or registered trademark in one-color vinyl die-cut graphics for placement on the inside of entry doors. Each door is permitted 1 square foot of vinyl die-cut sign area. The area must be centered approximately 42" from grade.

- (2) For the purpose of additional store or brand/logo identification, the Tenant may also propose to the Landlord a design layout of store name or brand/logo in one-color vinyl die-cut graphics for placement on the inside of every other (alternating) display windows. The maximum permitted area on each window may not exceed 1 square foot and placement must occur in the centered area measured a minimum of 8" inward toward the window's center from the vertical edges of the window and may not exceed 42" above grade.
- (3) Permanent store or brand/logo signage as a part of window background display is limited to 1 square foot of sign area per 1 lineal foot of store frontage.
- (6) Standard information signage icons such as no food, drink, smoking, etc. shall be provided by Landlord only.
- (10) Handicap access stickers are permitted and shall be placed according to A.D.A. or local jurisdiction under the supervision and approval of the Landlord.
- (11) The Landlord reserves the right to require a Tenant, at its expense, to remove any storefront signage it considers to be non-complying or unprofessional.

See Exhibit G for details.

Exhibit G: Entry Door/Storefront Window



Elevation – Typical Storefront

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APPENDIX G

EAST 51ST STREET VISION PLAN Summary of Recommendations



MUELLER

AUSTIN, TEXAS

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APPENDIX G

EAST 51ST STREET VISION PLAN Summary of Recommendations

The logo consists of the word "MUELLER" in a white, sans-serif, all-caps font, centered within a red rounded rectangle with a thin white border.

PREPARED FOR CATELLUS AUSTIN, LLC
BY McCANN ADAMS STUDIO IN ASSOCIATION WITH KINNEY & ASSOCIATES

FEBRUARY 14, 2012

Figure 1:
Mueller Illustrative 2011



BACKGROUND

A fundamental goal of the new Mueller community is that it should contribute positively to the quality of life of surrounding neighborhoods. Rather than a place apart, it has always been envisioned as a seamless extension of the neighborhood fabric, offering new amenities, appropriate transitions and connections, while creating a more intensive and diverse pattern of uses. Along the eastern, western and southern edges of the development, a continuous greenway with water quality and detention ponds provides an attractive trail system that links the adjacent neighborhoods with Patterson and Bartholomew Parks and the Morris Williams Golf Course, a goal first established in the 1984 CARE plan, authored by the surrounding neighborhoods.

The 51st Street frontage along the northern edge of Mueller has a more urban character; the Master Plan provides for mixed-use development oriented to a multi-use trail with connections to the perimeter greenway system (Figure 1). The 2000 Reuse and Redevelopment Plan, and the subsequent 2004 Design Book which was incorporated into the City's Development Agreement with Mueller's master developer Catellus, calls for 51st Street to be reserved as a multi-modal boulevard with provisions for future urban rail along a center median. As such, the Plan requires new Mueller development to step back from the existing 51st Street property line by 60-feet, to reserve future right-of-way for urban rail. The Plan identifies an interim condition for the street, and a future ultimate condition to accommodate urban rail (Figure 2).

With the planned development of AISD's Performing Arts Center at the corner of Mueller Boulevard and 51st Street, and with the City's urban rail plan nearing completion, the attention to 51st Street's role and design has re-emerged and questions have arisen: is the concept of exclusive-running urban rail along the median of the street consistent

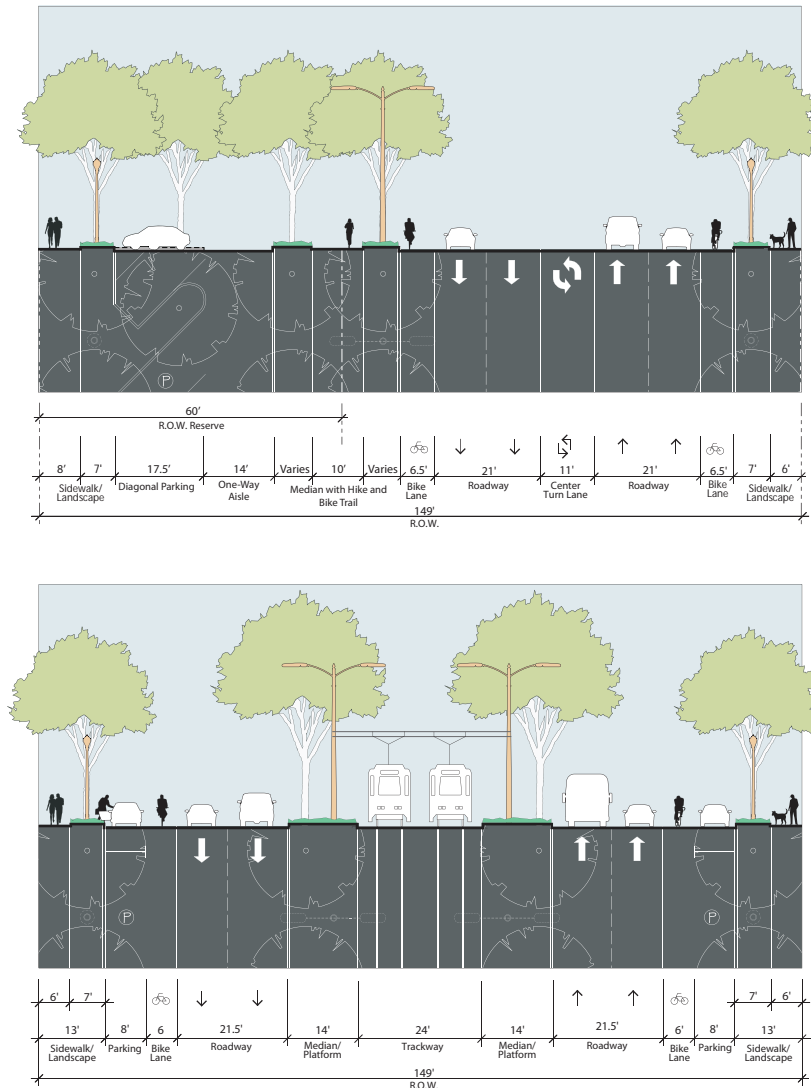


Figure 2:
51st Street Interim and Ultimate Conditions

with the City's rail plan, and is such a street consistent with the vision of the adjoining neighborhoods, particularly that of Windsor Park immediately to the north and Mueller to the south? In the spring of 2011, Catellus commissioned McCann Adams Studio and Kinney & Associates to undertake a planning and design process to re-visit the question of 51st Street. The goal of the study was articulated as follows:

“To establish a coordinated vision for East 51st Street between IH 35 and Old Manor Road, where the street provides important frontage for both the Mueller and Windsor Park neighborhoods. Through this effort, a dialogue will be established among key stakeholders to develop recommendations that can guide future public and private sector investment toward the realization of the vision.”

Planning Process

A Working Group consisting of key neighborhood stakeholders, property owners transportation agencies and the City of Austin was assembled to guide the planning effort. (A complete listing of Working Group members is provided in Appendix 1). Two workshop sessions were held with the Working Group in September and November of 2011. The first of these sessions provided an overview of existing plans and policies, issues and opportunities, and culminated in a brainstorming of design strategies for the street and the nature of development alongside (Appendix 2 provides the powerpoint presentation for this session). The second session focused on specific recommendations and the proposed design of the street cross section (Appendix 3 provides the powerpoint presentation for this session).

To inform these Working Group sessions, separate focus group meetings were held to discuss specific issues and topics. These included:

- A work session on August 17th with transportation agencies (TxDOT, CAMPO, Capital Metro and the City of Austin) to discuss plans and policies related to 51st Street;
- A work session on August 29th with representatives from the Windsor Park/University Hills Neighborhood Contact Team to discuss the neighborhood's vision for the corridor and the policies of their neighborhood plan, which was adopted in 2007; and
- Work sessions with key property owners (e.g., PromiseLand Church, Our Lady of Maronite Church and The University of Texas) to discuss their respective Master Plans and to review preliminary recommendations and concepts.

During the planning process, two presentations were made to the Mueller Plan Implementation Advisory Commission (PIAC) to



Figure 3:
51st Street Regional Context

inform them of the status of work and to receive input. In addition, presentations were made to the Windsor Park Neighborhood Association and have been scheduled for the Mueller Neighborhood Association.

Context and Character

51st Street is an important collector road that stretches across the northern edge of the Central City from Lamar Boulevard on the west to Ed Bluestein Boulevard (Highway 183) on the east. It connects key destinations and neighborhoods, including Hyde Park and North Loop on the west and Windsor Park, Mueller, Pecan Springs and the MLK neighborhoods on the east (Figure 3). The character of the street changes significantly from one segment to the next. Proceeding east to west:

- Between Highway 183 and Springdale Road it is a divided four-lane roadway with a continuous median and no sidewalks or bike lanes. (Photo 1)
- Between Springdale Road and Old Manor Road, the right-of-way narrows, the median is no longer present, and the street is lined with a mixture of single-family homes and institutional uses. Sidewalks are intermittent and there are no bike lanes. (Photo 2)
- As the road meets the Mueller development between Old Manor Road and Berkman Drive, it is lined by Bartholomew Park on the north and the Austin Film Studios and the City's Combined Transportation Emergency and Communication Center (CTECC) on the south giving it a park-like character. (Photo 3)



Photo 1: Between US 183 and Springdale Road



Photo 2: Looking West near Old Manor Road



Photo 3: Looking West approaching Berkman Drive



Photo 4: Looking West near Mueller Boulevard



Photo 5: Looking West approaching Lancaster Drive



Photo 6: Looking West toward IH 35

- West of Berkman Drive to IH 35, the roadway widens to a five-lane section with narrow curbside bike lanes. On the Mueller side of the road, much of the land remains undeveloped with no sidewalks west of Mueller Boulevard. AISD's Performing Arts Center is planned at the southeast corner of 51st Street and Mueller Boulevard. On the north side of the street, there is a narrow sidewalk and the land use pattern is mixed with large institutional uses like PromiseLand and the Maronite Church, smaller apartments and single-family homes. (Photo 4)
- Between Mueller Boulevard and Lancaster Drive, the University of Texas' Academic Health campus is situated on the south side of the street. Although only the first building of the complex has been constructed on Barbara Jordan Boulevard to the south, a continuous multi-use trail lined with trees has been completed along 51st Street. Future phases of the development will front 51st Street. (Photo 5)
- Between Lancaster Drive and IH 35, Mueller's regional retail center occupies the south side of the street. The tree-lined multi-use trail continues along this edge connecting to Mueller's perimeter greenway system. (Photo 6)
- West of IH 35 to Airport Boulevard, the roadway passes through the Ridgetop and North Loop neighborhood and reverts to a four-lane cross section. The character changes dramatically with small apartments and single-family bungalows lining the street. There are no bike lanes and pedestrian facilities are limited to a narrow sidewalk on the north side of the street. (Photo 7)
- As the street heads further west beyond Airport Boulevard, it narrows to a two-lane cross section with bike lanes. (Photo 8).



Photo 7: Between IH 35 and Airport Boulevard



Photo 8: Between Airport Boulevard and Guadalupe Street

Land Use and Ownership Pattern

The diverse pattern of land uses along the corridor between IH 35 and Old Manor Road reflects the fact that 51st Street was once a dividing line between the airport and the Windsor Park neighborhood. East of Berkman Drive, the land on both sides of the street is in large publicly owned parcels. The City's Parks and Recreation Department operates Bartholomew Park on the north, and it leases 20 acres of former airport land to the Austin Film Studios on the south. The State of Texas leases its former Airport Pooling site to Troublemaker Studios, and the City's CTECC complex occupies approximately nine acres of airport property (Figure 4).

The Mueller development along the south side of 51st Street includes several large mixed-use tracts, including: the grocery-anchored Market District at the southeast corner of Berkman Drive and 51st Street, AISD's Performing Arts Center, the University of Texas Academic Health Research Campus, and the Regional Retail complex, which includes Home Depot and a planned extended stay hotel at the southwest corner of Lancaster Drive and 51st Street.



The grocery-anchored Market District will present an active corner to the Berkman Drive and 51st Street intersection.

On the north side of the street west of Berkman Drive, there are several large property holdings including the PromiseLand campus, the Maronite Church, a gas station and convenience store (Speedy Stop) at Berkman Drive, and the Lone Star Restaurant supply site near IH 35. Between these sites are a mixture of smaller parcels, including single-family homes (now used for commercial purposes including Paco's Tacos) and small apartment buildings.

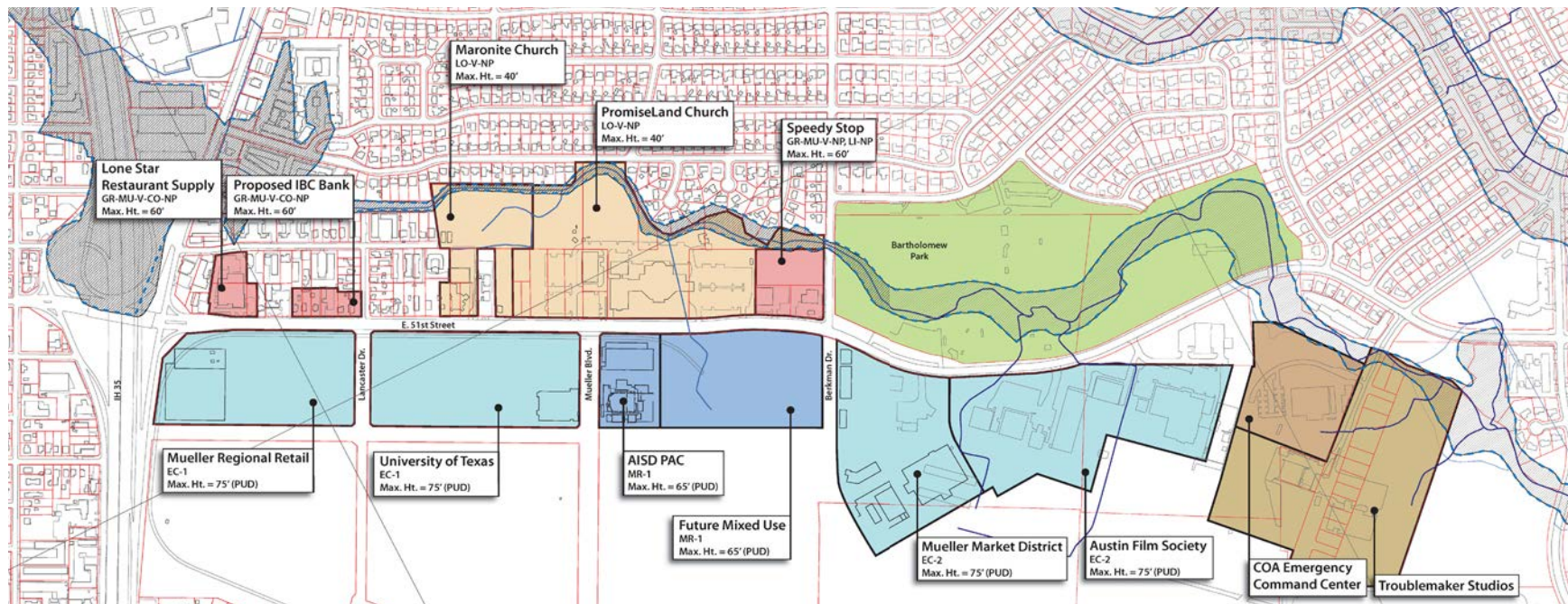


Figure 4:
51st Street Corridor Major Properties

NEIGHBORHOOD PLANS AND LAND USE POLICIES

51st Street borders both the Windsor Park and Mueller neighborhoods. A key motivation of this Vision Plan is to promote coordinated development along both sides of the street and a common vision for its transportation role and streetscape treatment. The following provides a summary of the key land use policies that will guide the future scale and character of the corridor.

Existing Zoning

As shown in Figure 5, the zoning on the north side of 51st Street is a mix of commercial designations, including LO-MU (Limited Office/Mixed Use) that provides for low-intensity office and commercial uses up to 40 feet in height on the PromiseLand and Maronite Church properties and GR-MU (General Retail/Mixed Use) that allows for commercial mixed-use up to 60 feet in height on most of the other fronting properties. The Neighborhood Plan opted for a Vertical Mixed Use zoning designation, which provides incentives for affordable housing as an upper level use along the corridor. The Future Land Use Map (FLUM) (Figure 6) designates the church properties as Civic and most of the remaining private properties as Mixed Use. On the south side of the street, Mueller is governed by a Planned Unit Development (PUD) zoning, which was adopted in 2004 and amended in 2009. This zoning provides for a mix of commercial and residential uses along 51st Street, with heights ranging from 65 to 75 feet.

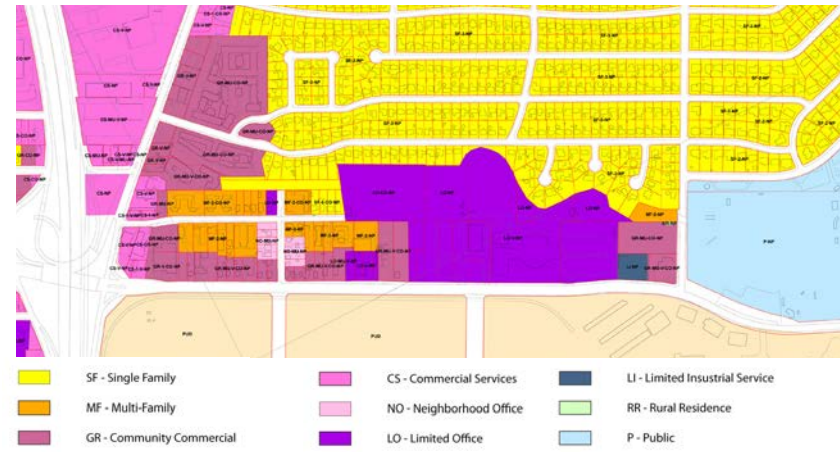


Figure 5:
City of Austin Zoning



Figure 6:
Future Land Use Map

University Hills/Windsor Park Neighborhood Plan

The University Hills/Windsor Park Neighborhood Plan, adopted in 2007, envisions 51st Street as a “pedestrian-friendly street with businesses that support both the neighborhoods north of 51st Street and the proposed businesses and land uses within Mueller.” As such, the Plan provided for the properties along the frontage to be rezoned to commercial mixed-use; automobile-oriented businesses are discouraged by the Plan; and the VMU designation was adopted to promote additional affordable housing. The Commercial Design Standards (Sub-chapter E) require development to be oriented to the street and to provide sidewalks with a minimum width of 15 feet. In addition, the Plan emphasizes the need for the neighborhoods north of 51st Street to “remain buffered from future traffic and more intensive land uses along the corridor and within Mueller.” At the same time, the Plan calls for stronger pedestrian connectivity between Mueller and Windsor Park, including the concept of a trail linkage across Tannehill Creek through the PromiseLand campus.

Mueller Design Book

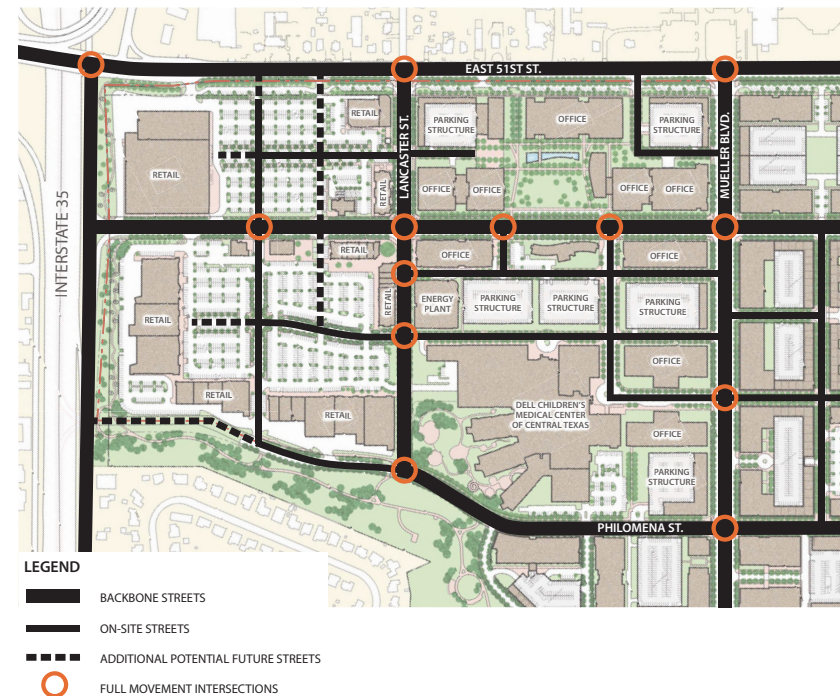
The Mueller Design Book provides design guidelines for all future development within the Planned Unit Development. Administered by a design review body known as the New Construction Council (NCC), it calls for:

- A finer pattern of streets and blocks to provide for future intensification (Figure 7).
- Continuous tree-lined sidewalks along all streets and driveways.
- A hike and bike trail along 51st Street, linked to Mueller’s greenway system.
- Buildings oriented to 51st Street with setbacks no more than 10

feet from the property line along 75% of each property’s edge between Lancaster and Berkman;

- Active ground level uses to the extent practicable; and
- Four-sided architecture, with no themed buildings.

At Berkman Drive, it calls for an active “gateway” use (e.g., retail or restaurant) to be located at the intersection with 51st Street, and for all development east of the intersection to be set back by at least 40 feet to preserve the existing trees and parkway character of this part of the corridor.



The Mueller Design Book calls for a finer pattern of streets and blocks that allow for future intensification of the regional retail, hospital and educational/research uses..

TRANSPORTATION POLICIES AND INITIATIVES

At the outset of the Vision Study, a focus group work session was conducted with key agencies involved in defining the transportation role of the 51st Street corridor, including CAMPO, TxDOT, Capital Metro and the City of Austin. From this session it became clear that the transportation role of 51st Street is still undefined, and that there is an opportunity to influence its future design and configuration. It also became clear that the 60-foot urban reserve, provided for in the 2000 Mueller Reuse and Redevelopment Plan, was not needed to meet any of the planned transportation functions of the corridor. Some of the key findings of this outreach included the following:

- Because 51st Street between IH 35 and Berkman Drive is projected to carry up to 38,000 vehicles per day (Figure 7), it will need to maintain its five-lane configuration. East of Berkman Drive, it may be possible to reduce the number

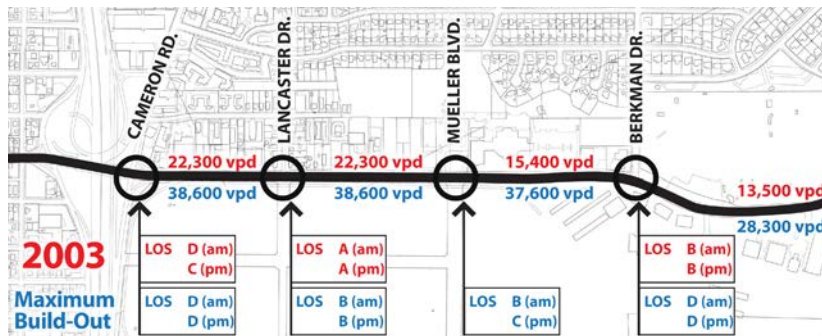


Figure 7:
Traffic Projections (Source: Mueller TIA)

of lanes from four to three, provided that adequate turning movements are provided at intersections. The City of Austin is considering a “road diet” for this segment of 51st Street.

- TxDOT is planning improvements at the IH 35 and 51st Street interchange, including: the enhancement of pedestrian and bike facilities on the 51st Street overcrossing of the freeway; and the construction of a new off-ramp beneath the bridge that will connect the IH 35 northbound service road to 53rd Street at Cameron Road providing more convenient and direct access from the freeway to Windsor Park (Figure 8).
- The City of Austin is exploring the feasibility of roundabouts at key intersections throughout the City, including one at 51st Street and Berkman Drive. Roundabouts have been shown to improve vehicular movement, while calming traffic and enhancing pedestrian and bicycle safety (Figure 9).

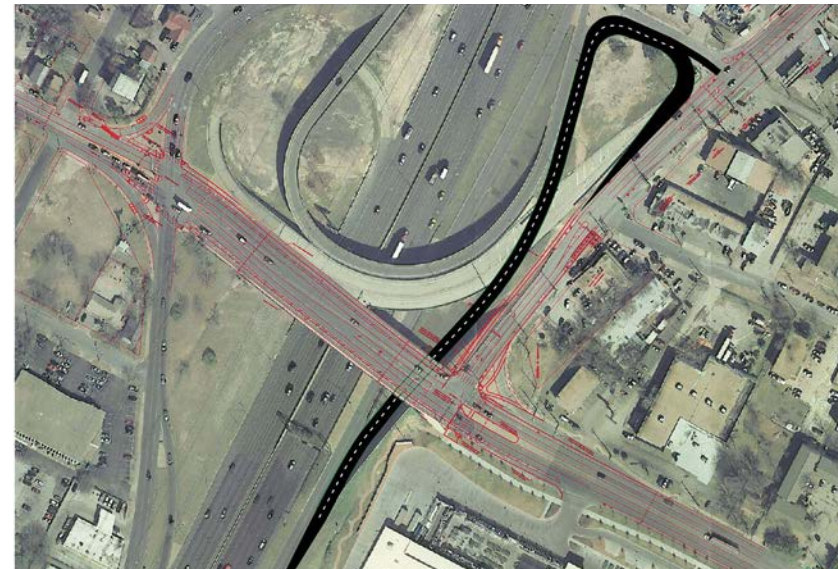


Figure 8:
IH 35 Interchange Improvement (Source: TxDOT)

- The City's Urban Rail plan is exploring the feasibility of a Mueller rail alignment that will terminate in the vicinity of Berkman Drive and Philomena Street, but that could in the future extend northward on Berkman through Windsor Park to a park and ride station along US 290 (Figure 10).
- Catellus is pursuing the construction of cycle tracks along Mueller Boulevard and Berkman Drive that will provide for a bike route separated from traffic by a raised median and parallel parking. Cycle tracks have been shown to significantly increase bike ridership, because of their enhanced safety (Figure 11).

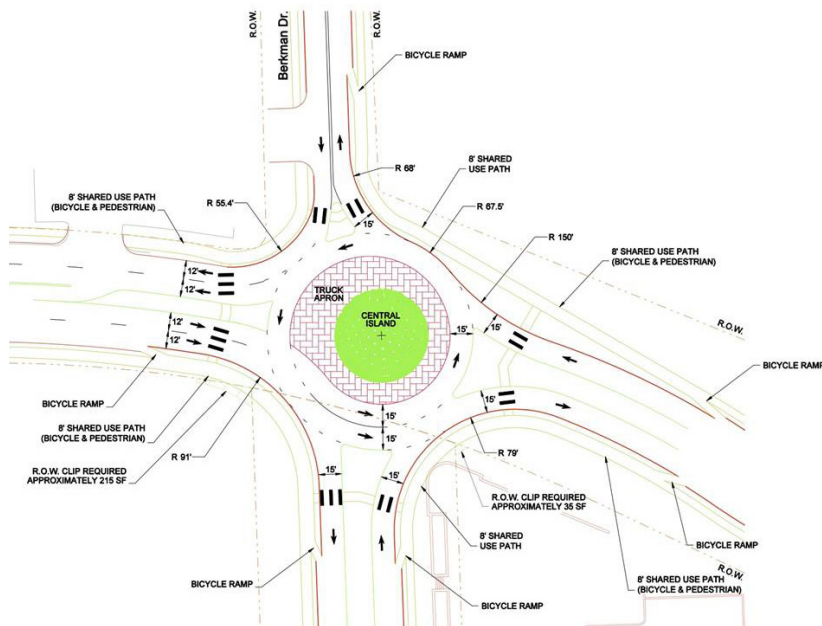


Figure 9:
Roundabout Concept for Berkman Drive

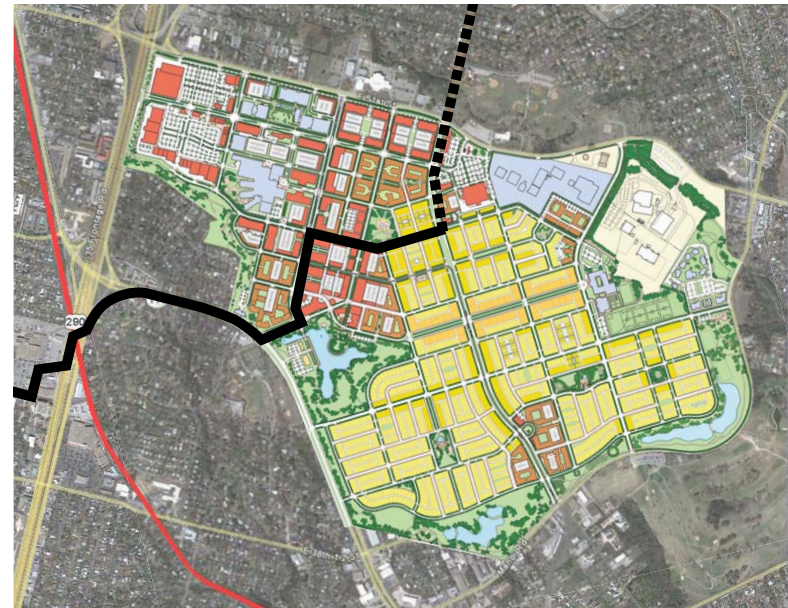


Figure 10:
Potential Urban Rail Alignment



Figure 11:
Cycle Tracks

THE VISION FOR 51ST STREET

At the first workshop with the Working Group, a series of questions were asked to help establish a coordinated vision for the corridor. Through a visual preference exercise (Appendix 2), the Working Group expressed the following opinions:

- **What transportation role should 51st street play in the future?** Traffic should be calmed and speeds reduced. West of Berkman Drive, on-street “teaser” parking should be provided on both sides of the street to encourage ground floor retail uses. A wide landscaped median should be introduced to reduce the perceived width of the street in this segment, and to provide for safer pedestrian crossings. Canopy trees should be planted to provide generous shade.



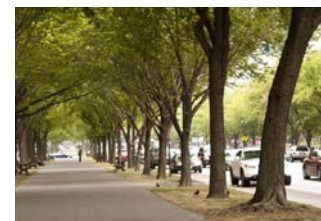
- **What kind of bicycle facilities should 51st Street have (bike lanes, off-street trails and/or separated cycle tracks)?**

Separated cycle tracks were preferred by most of the Working Group, because of the reduced conflict with moving traffic and parked cars. The need for a continuous bike lane along the length of the entire 51st Street corridor was emphasized.



- **What kind of sidewalks should 51st Street have (a hike and bike trail, or a more urban sidewalk with development activities alongside)?**

The group felt strongly that the segment of the street west of Berkman should be more urban with wide sidewalks and lots of pedestrian-friendly uses on both sides of the street. East of Berkman, a hike and bike trail was felt to be appropriate to extend the parkway character of Bartholomew Park and to provide connectivity with the Mueller greenway system.



- **What would make 51st Street beautiful (a wide street with lots of greenery, or a street framed by great buildings)?**

A majority of the Working Group felt that the segment of the street east of Berkman should be characterized by landscaping and greenery, while the portion to the west should be framed by buildings that offer spatial definition and pedestrian activity. The group felt that the height of buildings needs to be carefully considered to promote an appropriate transition to the neighborhood to the north.



- **Should on-street parking be provided on 51st Street, and if so how?**

Most of the Working Group strongly favored on-street parking west of Berkman Drive to support active retail and neighborhood-serving uses. Parallel or diagonal parking were deemed to be acceptable, as long as bulb-outs could be provided to reduce the width of pedestrian crossings.



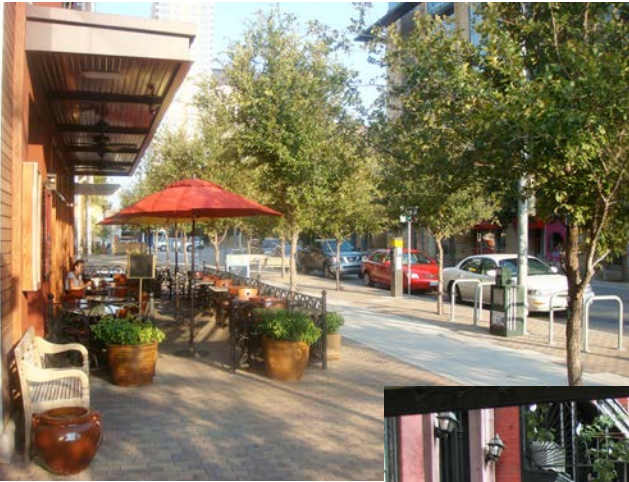
- **How should buildings contribute to the street (residential uses that put “eyes on the street”, active retail and restaurant uses, a combination of live and work uses, or uses set back for landscape and greenery)?**

Consistent with the responses above, a majority of the Working Group felt strongly that retail and restaurant uses, office and a combination of live and work uses should be encouraged along both sides of the street west of Berkman Drive. They emphasized the need for buildings to be oriented and built to the street to reinforce the pedestrian character of the corridor.



When asked to describe their highest single priority for the street, half of the respondents emphasized the need for activities to bring life and vitality to the corridor. A quarter of the group felt that the most important priority was to calm traffic to make it safer for pedestrians and cyclists. Others called for reducing the width of the street to make it easier to cross. Only a small minority felt that the top priority should be to ensure more efficient traffic flows.

As a result of this input, the following three vision statements were established for the street:



VISION STATEMENT 1:

51ST Street is a multi-modal urban street that accommodates safe pedestrian and bicycle movement as well as calm vehicular traffic.



VISION STATEMENT 2:

51st Street west of Berkman Drive is lined with buildings and developments that promote a safe, interesting and lively pedestrian environment, with strong linkages and an appropriate scale transition to the Windsor Park neighborhood.



VISION STATEMENT 3:

East of Berkman Drive, 51st Street is a narrow parkway with generous landscaping, bike lanes and trails alongside.



*51st Street from the
corner of Mueller
Boulevard looking east.*



PLAN RECOMMENDATIONS

With the Working Group reaching significant consensus on the vision of the corridor, the consultants explored various cross sections for the street with the City of Austin's Transportation Department and its Planning and Development Review Department. Policy recommendations for development were also prepared in tandem with recommendations for the design of the street and the right-of-way. The following describes the recommended street design and development policies for the segment of the street east of Berkman Drive, the segment between Berkman Drive and Lancaster Drive, and for the westernmost segment between Lancaster and IH 35.

East of Berkman Drive to Old Manor Road

- The segment of the roadway between Berkman Drive and Old Manor Road should be re-stripped within the existing curbs as a three-lane roadway with continuous curbside bike lanes; and a continuous tree-lined sidewalk or trail on each side of the street (Figure 12). (Note: For continuity, it is assumed that the City will extend this striping eastward to Manor Road).
- New Mueller buildings 75 feet or more east of the Berkman Drive intersection, should be set back from 51st Street by at least 40 feet with generous landscaping and trails that extend the park setting of Bartholomew Park.
- Surface parking lots should be well-screened with trees and landscaping and set back from the property line by at least 10 feet.

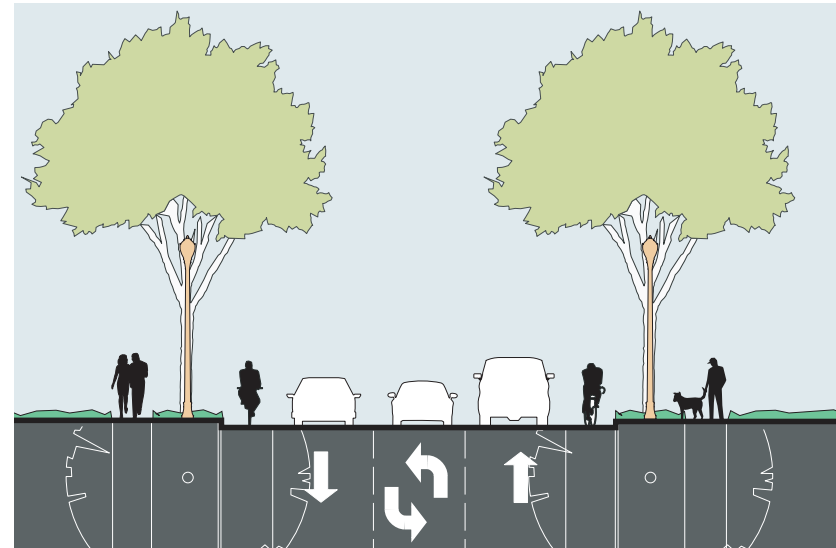


Figure 12:
Manor Road East of Berkman Drive Re-stripped



East of the Berkman intersection development should be set back by at least 40 feet and screened with generous landscaping.

Berkman Drive to Lancaster Drive

- Between Lancaster Drive and Berkman Drive, Mueller's 60-foot urban reserve for future rail should be removed and the cross section of 51st Street should be retrofitted to include (Figure 13):
 - A landscaped median with (left turn lanes) at key intersections (i.e., Lancaster Drive, Mueller Boulevard, Aldrich Street, Berkman Drive);
 - On-street parallel parking on both sides of the street to support local businesses (see bullet below);
 - One-way cycle tracks along each curb, separated from parallel parking and vehicular traffic by a raised median;
 - Generous tree-lined sidewalks; and
 - Pedestrian cross walks with intersection bulb-outs and median refuge areas.
- In 2007, the Austin City Council adopted a policy (Resolution No. 20070125-016) requiring a 10-foot maneuvering lane adjacent to parallel parking stalls on streets where the posted speed limit exceeds 35 miles per hour. Since, the posted speed limit for this segment of East 51st Street is 40 miles per hour and since the desire of the community is to reduce the perceived and actual width of the street, it is recommended that the posted speed limit be reduced to 35 miles per hour. In order to accomplish this, a study should be undertaken to show that traffic speeds will naturally reduce to 35 miles per hour or less, with the active uses and enhanced bicycle and pedestrian environment proposed for the corridor. With approval of a reduced posted traffic speed, an engineering report will then be required by the City to demonstrate that the proposed location and configuration of parallel parking spaces will not impact the critical capacity of the street.

- At least 75% of each property's frontage along the south side of 51st Street edge should be lined with office, commercial, residential, shop house or live-work buildings that present their front entries to the street. Parking lots and garages should be screened from predominant view from 51st Street.
- The recommended height of new development within Mueller's existing urban reserve should not exceed 60 feet, to respect the scale of future development on the north side of the street.
- Buildings along the north side of the street should meet the City's Commercial Design Standards set forth in Subchapter E of the Land Development Code.
- New development within 75 feet of the intersections of Lancaster Drive, Mueller Boulevard, Aldrich Street and Berkman Drive should include active ground level commercial

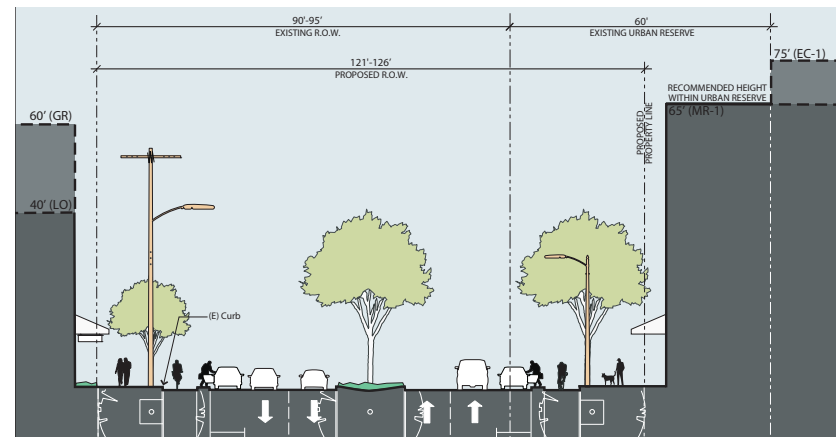


Figure 13:
E. 51st Street Section Lancaster Drive to Berkman Drive

or live-work uses having their primary pedestrian entries oriented to the street. Automobile entries and curb cuts should be minimized to the maximum extent practicable.

- Awnings are encouraged on buildings facing the street to provide shade and rain protection.

West of Lancaster Drive to IH 35

- Between IH 35 and Lancaster Drive, Mueller's 60-foot urban reserve and frontage road should be maintained, but the cross section of 51st Street should be retrofitted to include (Figure 14):
 - A landscaped median with left turn lanes for Home Depot; and

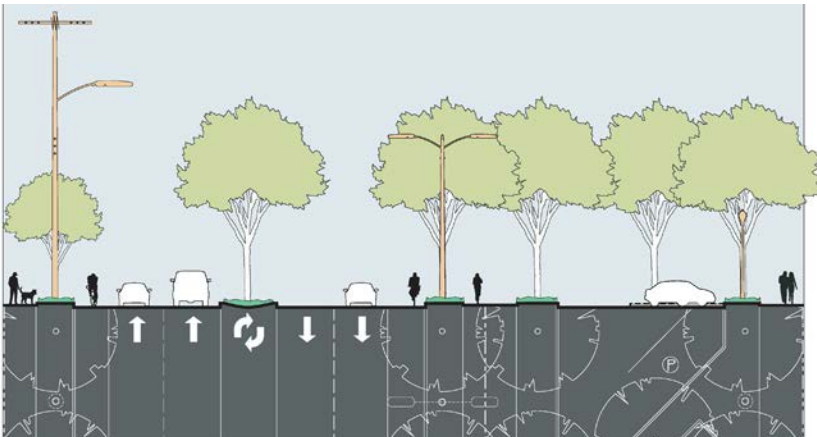


Figure 14:
West of Lancaster Drive to IH 35

- Improved tree-lined sidewalks along the north side of the street to be constructed as adjacent development projects occur.

- At least 35% of each property's frontage along the south side of 51st Street should be lined with office, commercial, residential, shop houses or live-work buildings with their primary or secondary entries oriented to the street. Parking lots should be screened with generous landscaping and situated no closer than 10 feet from the property line. Parking garages shall not be in the dominant viewshed along the frontage.
- New development along the north side of the street should meet the City's Commercial Design Standards set forth in Subchapter E of the Land Development Code.
- New development within 75 feet of the Lancaster Drive intersection should include active ground level commercial or live-work uses having their primary pedestrian entries oriented to the street or to the frontage road along the south side of the street.

Landscape

- Large canopy trees should be incorporated along both sides of the street and in the median to provide a continuous boulevard of green. The feasibility of realigning, upgrading or undergrounding the existing power lines on the north side of 51st Street to reduce their visual and landscape impact should be explored with Austin Energy.

Implementation

- Continue to coordinate with other planning and transportation initiatives in the vicinity of 51st Street including: the Airport Boulevard Transportation Corridor Study and Form Based Code Initiative; TxDOT's improvement of the IH 35/51st Street interchange; and the City of Austin's exploration of traffic circles at Berkman Drive and 51st Street.
- PromiseLand and the Maronite Church should be encouraged to work together to reinforce the overall vision of 51st Street and the University Hills/Windsor Park Neighborhood Plan. The churches have the opportunity to develop master plans aimed at meeting their programmatic needs and guiding future redevelopment in a way that provides for:
 - The orderly replacement of vacant land and surface parking lots with new activities, buildings and open spaces that enhance the pedestrian life and vitality of the corridor;
 - Consolidation and reduction of the number of driveways and curb-cuts along 51st Street to avoid disruption of the pedestrian and cycling environment;
 - Internal streets that break up the large superblock and provide connectivity among properties;
 - Traffic circulation that does not have a negative impact on adjacent neighborhoods; and
 - At least one pedestrian/bicycle trail connection across Tannehill Creek to connect the Windsor Park neighborhood with the 51st Street corridor and Mueller.
- Coordinate with the City of Austin to place the recommended improvements for 51st Street in the 2012 transportation bond package. The project is a very good candidate for the bond package, since it adheres to the guiding principles set forth by the Capital Planning Office and the Bond Election Advisory Task Force. More specifically:
 - The Vision Plan reflects the values and priorities of the City's Comprehensive Plan "*Imagine Austin*", by promoting "connected and pedestrian-friendly patterns" of development that support "transit and urban lifestyles....while protecting and enhancing neighborhoods."
 - It promotes enhanced mobility and transportation choices with improved bicycle and pedestrian facilities;It will enhance the quality of life for residents and businesses along the corridor; and
It will leverage other funding sources including private infrastructure investment by Catellus and the Mueller development.
- Prepare materials to support a reduction of the posted travel speed on 51st Street, and an engineering report that supports the location of on-street parking between Lancaster and Berkman drives.

APPENDIX 1

WORKING GROUP MEMBERS

Windsor Park Neighborhood

Jeanette Swenson
Rick Krivoniak
Stafford Gunning
Greg Montes

Ridgetop Neighborhood

Martha Ward

Pecan Springs Neighborhood

Stephanie Tsen

Mueller Neighborhood

Betsy Hilton

PromiseLand

Shules Hersh

Our Lady's Maronite Catholic Church

M. Don Sawyer
Jimmy Nassour
Roger Elkhoury

University of Texas

Dave Dixon

Austin Independent School District

Flo Rice

Austin Film Society

Martin Parrington

PIAC

Jim Walker

City of Austin

Pam Hefner
Gordon Derr
Nathan Wilkes

Catellus

Greg Weaver
Carl Paulson
Dee Desjardin

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APPENDIX 2

SEPTEMBER 2011 51ST STREET WORKING GROUP PRESENTATION AND VISUAL PREFERENCE EXERCISE

EAST 51ST STREET VISION PLAN WORKING GROUP WORK SESSION

September 22, 2011



51ST STREET VISION PLAN

Process and Schedule

August 17: Transportation Focus Group Meeting

August 29: Windsor Park Focus Group Meeting

TODAY: 51st Street Working Group Session #1

September-October: Draft recommendations & strategies.
Meet with stakeholders as needed.

Late October: Working Group Session #2

November: Present results to PIAC

51ST STREET VISION PLAN

Agenda

1. INTRODUCTIONS
2. PURPOSE OF STUDY
3. STUDY PROCESS AND SCHEDULE
4. 51ST STREET TODAY
5. 51ST STREET TOMORROW
6. STAKEHOLDER PRIORITIES

51ST STREET VISION PLAN

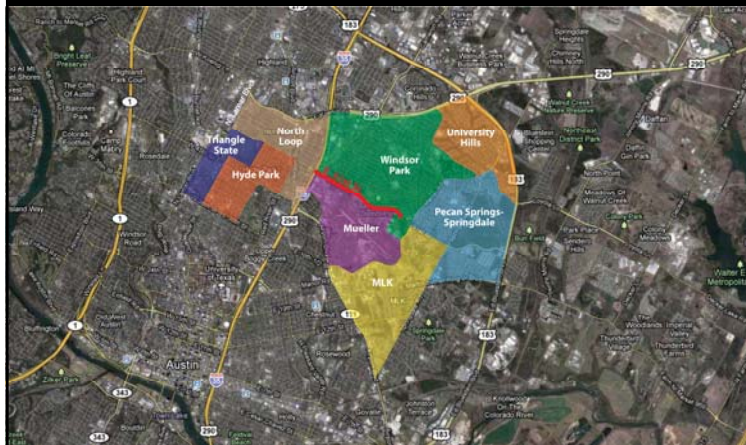
51st Street Today



CITY CONTEXT

51ST STREET VISION PLAN

51st Street Today



STUDY AREA

51ST STREET VISION PLAN

51st Street Today



Between Springdale and Manor Road

51ST STREET VISION PLAN

51st Street Today



Between US 183 and Springdale

51ST STREET VISION PLAN

51st Street Today



Looking West near Old Manor Road

51ST STREET VISION PLAN

51st Street Today



Looking West approaching Berkman Drive

51ST STREET VISION PLAN

51st Street Today



Looking West approaching Lancaster Drive

51ST STREET VISION PLAN

51st Street Today



Looking West near Mueller Boulevard

51ST STREET VISION PLAN

51st Street Today



Looking West toward IH-35

51ST STREET VISION PLAN

51st Street Today



Between I-35 and Airport Boulevard

51ST STREET VISION PLAN

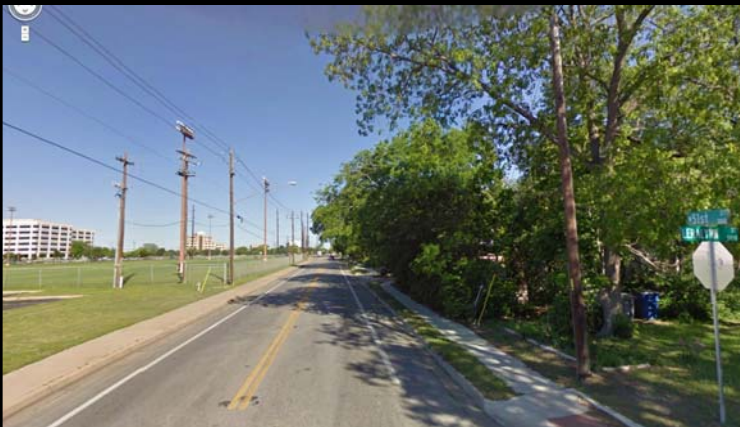
51st Street Today



BETWEEN BERKMAN DRIVE AND OLD MANOR ROAD

51ST STREET VISION PLAN

51st Street Today



Between Airport Boulevard and Guadalupe Street

51ST STREET VISION PLAN

51st Street Today



BETWEEN I-35 AND BERKMAN DRIVE

51ST STREET VISION PLAN

51st Street Today

EXISTING LAND USES (CITY OF AUSTIN)

51ST STREET VISION PLAN

[illegible]

51st Street Today

EXISTING ZONING

51ST STREET VISION PLAN

LEGEND

- SF - Single Family
- MF - Multi-Family
- GR - Community Commercial
- CS - Commuterial Services
- NO - Neighborhood Office
- LO - Limited Office
- U - Limited Incommutal Service
- RR - Rural Residence
- P - Public

51st Street Today

- PromiseLand Church:** ± 22.87 ac; LO-MAP; Max. HT. = 60'
- Bartelme Park:** Green shaded area.
- AISD PAC:** ± 3.99 ac; MRS-1; Max. HT. = 65' (PUD)
- Future Mixed Use:** ± 14.94 ac; MRS-1; Max. HT. = 65' (PUD)
- Mueller Market District:** ± 13.61 ac; EC-2; Max. HT. = 75' (PUD)
- Austin Film Society:** ± 20.00 ac; EC-2; Max. HT. = 75' (PUD)
- COA Emergency Command Center:** Brown shaded area.
- Troublemaker Studios:** Grey shaded area.
- Speedy Stop:** ± 3.67 ac; CO-MU-S-NP-LI-NP; Max. HT. = 40'

MAJOR PROPERTY OWNERSHIP (EAST OF BERKMAN)

51ST STREET VISION PLAN

51st Street Tomorrow

University Hills/Windsor Park Neighborhood Plan

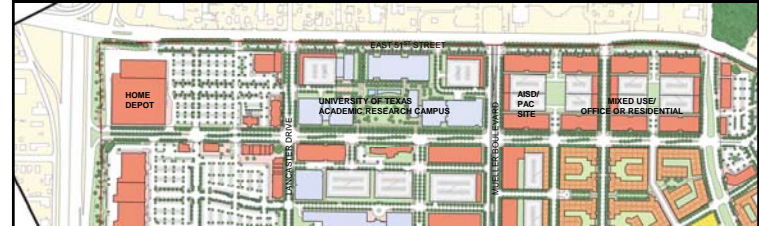
- Transform 51st Street into a pedestrian-friendly street with businesses that support both the neighborhoods north of 51st and the proposed businesses and land uses within Mueller.
- Rezone properties to commercial mixed use.
- Restrict automobile-oriented businesses.
- Vertical Mixed Use to promote additional/affordable residential.
- A Core Transit Corridor with pedestrian-friendly design elements.
- Ensure that the neighborhoods north of 51st Street remain buffered from future traffic and more intensive land uses along the corridor and within Mueller.

51ST STREET VISION PLAN

51st Street Tomorrow

Mueller Design Book

- A finer pattern of streets and blocks to provide for future intensification.
- Continuous tree-lined sidewalks along all streets and driveways.
- 51st Street hike and bike Trail linked to Mueller Greenway system.
- Buildings 10 feet from property line for 75% of frontage east of Lancaster.
- Active ground level uses to extent practicable.
- Four-sided architecture; no themed buildings.



MUELLER: ILLUSTRATIVE PLAN: (WEST OF BERKMAN)

51ST STREET VISION PLAN

51st Street Tomorrow

University Hills/Windsor Park Neighborhood Plan



51ST STREET VISION PLAN

51st Street Tomorrow

Mueller Design Book

- Active "gateway" use at Berkman Drive.
- Setback of 50 feet east of Berkman and along Austin Film Studios to preserve existing trees and parkway character



MUELLER: ILLUSTRATIVE PLAN: (EAST OF BERKMAN)

51ST STREET VISION PLAN

51st Street Tomorrow

Market District



Existing View looking south from Berkman

51ST STREET VISION PLAN

51st Street Tomorrow

Market District



"Ten-Year" View looking south from Berkman

51ST STREET VISION PLAN

51st Street Tomorrow

Market District



"One-Year" View looking south from Berkman

51ST STREET VISION PLAN

51st Street Tomorrow

Market District



Existing View looking east to future fuel station site

51ST STREET VISION PLAN

51st Street Tomorrow

Market District



"One-Year" View looking east to fuel station

51ST STREET VISION PLAN

51st Street Tomorrow

Market District



"Ten-Year" View looking east to fuel station

51ST STREET VISION PLAN

51st Street Tomorrow

Market District



"Ten-Year" View looking east to fuel station

51ST STREET VISION PLAN

51st Street Tomorrow

Market District



Existing View looking west to future fuel station

51ST STREET VISION PLAN

51st Street Tomorrow

Market District



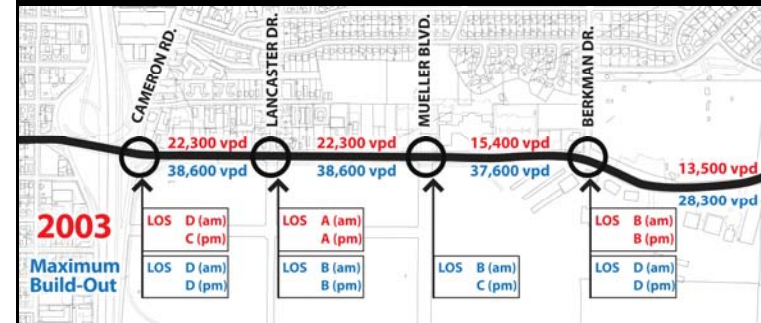
"One-Year" View looking west to future fuel station

51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

Existing and Permitted Maximum Traffic Volumes (Vehicles per Day)/
AM/PM Peak Hour Levels of Service



Source: Approved RMMA Traffic Impact Analysis

51ST STREET VISION PLAN

51st Street Tomorrow

Market District

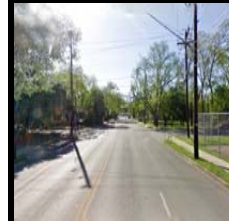


"Ten-Year" View looking west to future fuel station

51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION COMPARABLES



45th St. & Avenue G
15,000 vehicles per day



38th St. & Cedar St.
25,000 vehicles per day.



Airport Blvd & Wilshire
35,000 vehicles per day

51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

- The transportation role of East 51st Street is still undefined; there is an opportunity to influence its future design and configuration.
- What is proposed/planned/under consideration?
- TxDOT: I-35 Interchange Improvements
- City of Austin: “Road Diet”, Roundabout, Urban Rail
- Mueller Cycle Tracks on Berkman and Mueller
- Mueller Reuse Plan: “Urban Reserve”

51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

TxDOT: I-35 Interchange Improvement (Preliminary Concept)



51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

TxDOT: I-35 Interchange Improvement (Preliminary Concept)

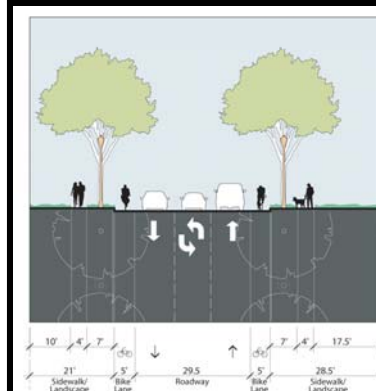


51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

City of Austin: “Road Diet” east of Berkman (Preliminary)



51ST STREET VISION PLAN

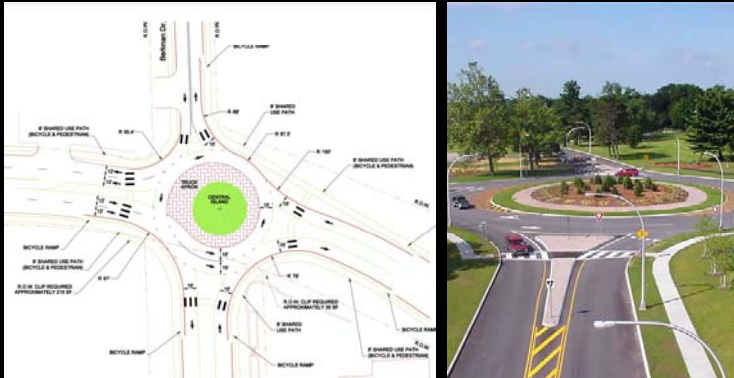


Conversion from four to three vehicular lanes with addition of bike lanes.

51st Street Tomorrow

TRANSPORTATION

City of Austin: Roundabout at Berkman (Preliminary Concept)



Source: City of Austin/HDR.

51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

Mueller: Cycle Tracks along Berkman Drive and Mueller Blvd.



51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

City of Austin Urban Rail Alternative:
Hancock Center via Airport Boulevard to Mueller

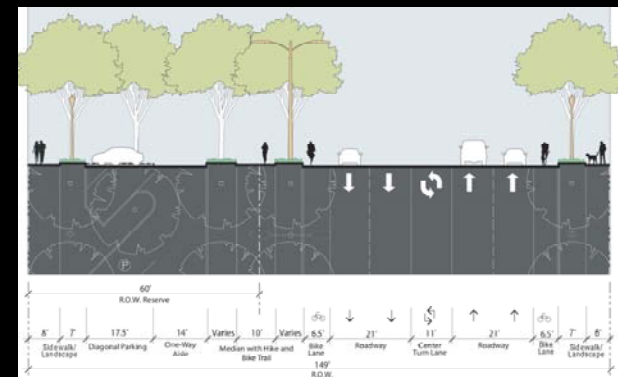


51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

Mueller: Urban Reserve (Interim): East 51st Street (west of Berkman)

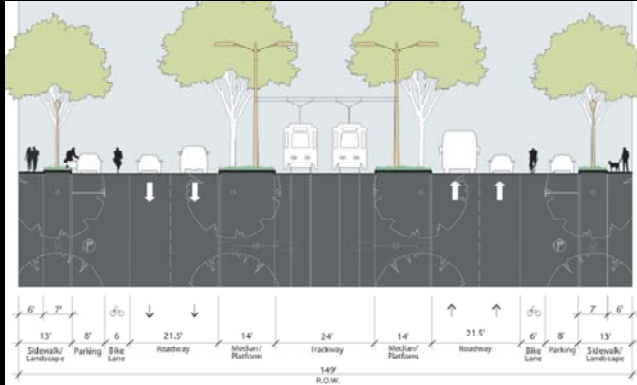


51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

Mueller: Urban Reserve (Ultimate): East 51st Street (west of Berkman)



51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

Mueller: Urban Reserve (Ultimate): East 51st Street (west of Berkman)



View at Berkman Drive looking west.

51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

Mueller: Urban Reserve (Interim): East 51st Street (west of Berkman)



View at Berkman Drive looking west.

51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

Mueller: Urban Reserve (Interim): East 51st Street (west of Berkman)



View near Cameron Road looking east.

51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

Mueller: Urban Reserve (Ultimate): East 51st Street (west of Berkman)



View near Cameron Road looking east.

51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

Mueller: Urban Reserve (Ultimate): East 51st Street (west of Berkman)



View at Lancaster Drive looking east.

51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

Mueller: Urban Reserve (Interim): East 51st Street (west of Berkman)



View at Lancaster Drive looking east.

51ST STREET VISION PLAN

51st Street Tomorrow

TRANSPORTATION

Mueller: Urban Reserve (Interim): East 51st Street (west of Berkman)



View at Mueller Boulevard looking east.

51ST STREET VISION PLAN



51st Street Tomorrow

1. What transportation role should 51st Street play in the future?

C. An urban street with median planting?



86TH STREET, INDIANAPOLIS INDIANA

51ST STREET VISION PLAN

51st Street Tomorrow

3. What kind of sidewalks should 51st Street have?

A. A hike and bike trail like that called for in the Mueller Plan...or



EASTERN PARKWAY, BROOKLYN

B. a more urban sidewalk with development activities alongside?



NEW YORK CITY SIDEWALK

C. Both...one condition east of Berkman and the other on the west side.
D. Other...expand.

51ST STREET VISION PLAN

51st Street Tomorrow

2. What kind of bicycle facilities should 51st Street have?

A. On-street bike lanes.... B. Off-street trails...or C. Separated cycle tracks?



D. Other...expand.

51ST STREET VISION PLAN

51st Street Tomorrow

4. What would make 51st Street beautiful?

A. A wide street with lots of greenery and buildings set back...or



AVENUE DU PARC LA FONTAINE, MONTREAL

B. A street framed by great buildings?



PARIS BOULEVARD

C. Both...one condition east of Berkman and the other on the west side.
D. Other...expand:

51ST STREET VISION PLAN

51st Street Tomorrow

5. Should on-street parking be provided on 51st Street, and if so how?



A. ON-STREET PARALLEL PARKING



B. BACK-IN ANGLED PARKING

51ST STREET VISION PLAN

51st Street Tomorrow

6. How should buildings contribute to the street ?

A. With residential uses that put "eyes on the street"



RESIDENTIAL USES

B. With retail and restaurant uses that create activity



SHOPS AND RESTAURANTS

C. With a combination of live and work type uses.



SHOP HOUSE

51ST STREET VISION PLAN

51st Street Tomorrow

5. Should on-street parking be provided on 51st Street, and if so how?



C. A SEPARATED FRONTAGE ROAD

51ST STREET VISION PLAN

51st Street Tomorrow

6. How should buildings contribute to the street ?

D. With set backs that allow for generous landscape and greenery?



51ST STREET VISION PLAN

51st Street Tomorrow

7. Which of the following reflects your **strongest** priority for the street? (***CHOOSE ONE and then rank the others from two to five***)

- A. Make sure traffic flows efficiently.
- B. Calm traffic so its safer for pedestrians and cyclists.
- C. Introduce activities that bring life to the street.
- D. Create a street with lots of trees and greenery.
- E. Reduce its width and make it easier to cross.

51ST STREET VISION PLAN

Next Steps

August 17: Transportation Focus Group Meeting

August 29: Windsor Park Focus Group Meeting

TODAY: 51st Street Working Group Session #1

September-October: Draft recommendations & strategies.
Meet with stakeholders as needed.

Late October: Working Group Session #2

November: Present results to PIAC

51ST STREET VISION PLAN

51st Street Tomorrow

STAKEHOLDER DISCUSSION

WHAT ARE YOUR PRIORITIES FOR 51ST STREET?

NEIGHBORHOODS

- Windsor Park/
University Hills?
- Mueller?
- Pecan Springs?
- Ridgetop?

PROPERTY OWNERS

- PromiseLand?
- Maronite Church?
- Austin Film Studio
- AISD
- Catellus?
- UT?

51ST STREET VISION PLAN

Thank You!

51ST STREET VISION PLAN

APPENDIX 3

NOVEMBER 2011

51ST STREET WORKING GROUP

PRESENTATION OF PROPOSED RECOMMENDATIONS

EAST 51ST STREET VISION PLAN WORKING GROUP WORK SESSION #2

November 17, 2011



51ST STREET VISION PLAN

What we heard from you

1. What transportation role should 51st Street play in the future?



- Reduced speeds/ calmer traffic
- Teaser parking for ground floor retail
- Wide median with narrow lanes
- Trees that provide shade
- Don't use urban reserve for traffic

51ST STREET VISION PLAN

Agenda

1. INTRODUCTION AND BACKGROUND
2. REVIEW OF INPUT FROM SEPTEMBER SESSION
3. PRELIMINARY CONCEPTS
 - a. Design of 51st Street
 - b. Mueller Frontages
 - c. Windsor Park Frontages
4. DISCUSSION
5. NEXT STEPS

51ST STREET VISION PLAN

What we heard from you

2. What kind of bicycle facilities should 51st Street have?

A. On-street bike lanes.... B. Off-street trails...or C. Separated cycle tracks?



23%



31%



46%

- Avoid conflicts with parked cars
- Create continuity along corridor

51ST STREET VISION PLAN

What we heard from you

3. What kind of sidewalks should 51st Street have?

A. A hike and bike trail like that called for in the Mueller Plan...or



18%

B. a more urban sidewalk with development activities alongside?



36%

C. Both...one condition east of Berkman and the other on the west side. 46%

- Urban to Berkman with hike-and-bike to east
- Lots of pedestrian-oriented uses
- Wide sidewalks on both sides of the street

51ST STREET VISION PLAN

What we heard from you

5. Should on-street parking be provided on 51st Street, and if so how?

YES = 77%

NO = 15%

UNDECIDED = 8%



A. ON-STREET
PARALLEL PARKING
21%



B. BACK-IN ANGLED
PARKING
29%



C. SEPARATED
FRONTAGE ROAD
50%

- A or B OK, but MUST have bulb-outs at corners to shorten pedestrian crossings.

51ST STREET VISION PLAN

What we heard from you

4. What would make 51st Street beautiful?

A. A wide street with lots of greenery and buildings set back.



25%

B. A street framed by great buildings?



25%

C. Both...one condition east of Berkman and the other on the west side.

50%

- Lots of pedestrian-oriented uses west of Berkman
- Some height setback?

51ST STREET VISION PLAN

What we heard from you

6. How should buildings contribute to the street?

A. Residential uses that put "eyes on the street"



6%

B. Active retail and restaurant uses



38%

C. Combination of live and work uses



44%

D. Set backs for landscape and greenery?



12%

- Mixed use on both sides of the street
- Buildings needs to be close to the street

51ST STREET VISION PLAN

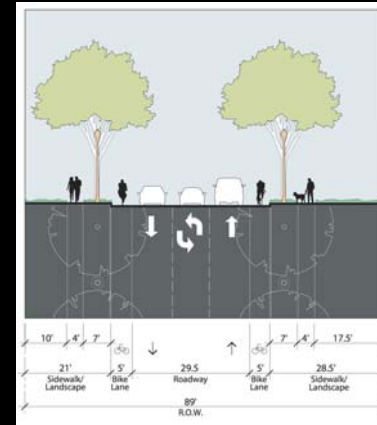
What we heard from you

7. Which of the following reflects your **strongest** priority for the street? (**CHOOSE ONE** and then rank the others from two to five)

- | | |
|--|-----|
| A. Make sure traffic flows efficiently. | 7% |
| B. Calm traffic so its safer for pedestrians and cyclists. | 22% |
| C. Introduce activities that bring life to the street. | 50% |
| D. Create a street with lots of trees and greenery. | 7% |
| E. Reduce its width and make it easier to cross. | 14% |

51ST STREET VISION PLAN

Preliminary Concepts



Proceed with "Road Diet" East of Berkman (from 4 to 3 lanes)

51ST STREET VISION PLAN

Preliminary Concepts

A. 51ST STREET DESIGN

- Reduce its actual and perceived width.
- Make pedestrian crossings easier and safer.
- Introduce cycle tracks btwn Berkman & Lancaster.
- Make it greener with trees and landscape.
- Calm traffic with on-street parallel parking.
- Design for street-oriented commercial uses.

51ST STREET VISION PLAN

Preliminary Concepts



Pursue "Urban Boulevard" Berkman to Lancaster

51ST STREET VISION PLAN

Preliminary Concepts



Pursue "Urban Boulevard" Berkman to Lancaster

51ST STREET VISION PLAN

Preliminary Concepts

B. MUELLER FRONTING PROPERTIES

- Bring development up to the sidewalk, with pedestrian-friendly treatments for entire frontage (e.g., shopfronts, offices, shophouses, townhouses)
- Introduce commercial space at key corners (i.e., Berkman, Mueller, Lancaster).



51ST STREET VISION PLAN

Preliminary Concepts

B. MUELLER FRONTING PROPERTIES

- Bring development up to the sidewalk, with pedestrian-friendly treatments for entire frontage (e.g., shopfronts, offices, shophouses, townhouses)



51ST STREET VISION PLAN

Preliminary Concepts

C. WINDSOR PARK-FRONTING PROPERTIES

- Bring new development up to the sidewalk.



51ST STREET VISION PLAN

Preliminary Concepts

C. WINDSOR PARK-FRONTING PROPERTIES

- Bring new development up to the sidewalk.
- Encourage infill development on large parcels. (e.g., PromiseLand, Maronite Church).



Preliminary Concepts

C. WINDSOR PARK-FRONTING PROPERTIES

- Bring development up to the sidewalk.
- Encourage infill development on large parcels. (e.g., PromiseLand, Maronite Church).
- Improve pedestrian connectivity: WP to Mueller.
- Introduce new street connections.



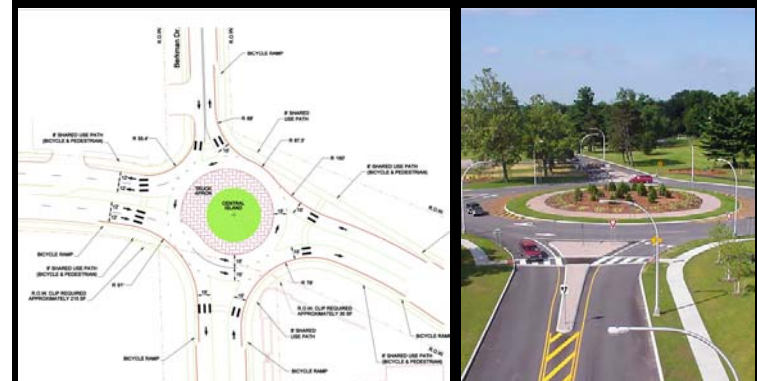
Preliminary Concepts

C. WINDSOR PARK-FRONTING PROPERTIES

- Bring development up to the sidewalk.
- Encourage infill development on large parcels. (e.g., PromiseLand, Maronite Church).
- Improve pedestrian connectivity: WP to Mueller.



City of Austin Proposed Roundabout at Berkman Drive?



51ST STREET VISION PLAN