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UNIVERSITY OF SOUTHERN CALIFORNIA
UNIVERSITY PARK CAMPUS
SPECIFIC PLAN

APPENDIX B:

JEFFERSON BOULEVARD
STREETSCAPE PLAN



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INTRODUCTION AND CONTEXT

Purpose of this Appendix

This Streetscape Plan for Jefferson Boulevard lays out the vision for reconfiguration of the street, in order to accommodate a more multi-modal, transit-supportive, and bike and pedestrian-friendly allocation of street space on Jefferson Boulevard, from Vermont Avenue in the west to Flower Street in the east. The Appendix is intended to guide the design of Jefferson Boulevard, including street configuration, materials, landscape, and street furnishings. To the extent practical, the designs put forth should be used as a guide for street redesign, as new development occurs along its length.

Context

Jefferson Boulevard has to respond to a variety of needs and a variety of users. As the areas north of the core campus develop over time and as the core campus infills and grows, Jefferson Boulevard will become the seam that links the two areas together. It will increasingly bind the core campus with the mixed-use and residential areas to the north, providing access from the places where students live to where they are taking their classes. Furthermore, with the Expo Line station at Jefferson Boulevard and Flower, Jefferson Boulevard has already grown in importance as an west-east connector for transit-riders who are going to campus. The street is also an important community asset, providing transit access and east-west linkage in and through the residential areas around it and to the Figueroa Corridor / Downtown.

Existing Conditions

Jefferson Boulevard is not currently realizing its full potential, in terms of bike-, pedestrian-, and transit-friendliness. Bike facilities on Jefferson Boulevard are inadequate and many students choose to ride on the sidewalk rather than on the street. The majority of Jefferson Boulevard sidewalks are 10ft wide and are broken in places, with an inconsistent tree canopy and buildings that often do face the street directly. There are two different sidewalk conditions along the length of Jefferson Boulevard, the first is a 10ft sidewalk with 3ft - 4ft rectilinear planters and the second is an 8ft meandering sidewalk with curvilinear planters that are 42ft - 60ft long and 8' wide at their widest part. Despite these constraints, the sidewalks carry heavy loads of pedestrians (and bicyclists) at peak hours.

Crossing Jefferson Boulevard can be a challenge and the scramble crossings installed at a few of the intersections are operating at maximum capacity; sometimes bike riders collide with pedestrians in these instances. There are four crosswalks currently along the study area, at Royal Street, Hoover Street, McClintock Avenue, and Vermont Avenue. The intersections at Hoover/Jefferson and McClintock/Jefferson currently have “scramble” crosswalks, which allow all-way pedestrian crossings during one phase of the signal cycle. The intersection at Royal/Jefferson currently has a crosswalk only on the east side of the intersection. Crosswalks exist at all signalized intersections. Curbs at corners on Jefferson Boulevard from Vermont to Flower have radii of approximately 25', with the exception of two instances. This is a somewhat large radius that negatively impacts the pedestrian's crossing experience. The transit experience for bus and shuttle riders is also not optimal as there are no or limited bus shelters, signage, seating, and lighting.

Street trees exist along the majority of Jefferson Boulevard from Royal Street to Vermont Avenue, including trees within a central median. The canopy is irregular, in terms of types and ages of trees, however and in a few cases along this stretch, trees are missing from planters. Species currently present include Jacaranda, Canary Island Pine, Lemon-Scented Gum, Southern Magnolia, Rusty-Leaf Fig, and Mexican Fan Palm. Street lighting along Jefferson Boulevard is predominately auto-oriented (lighting illuminating primarily the street, not the sidewalk). A few pedestrian-oriented street lights exist between Figueroa and Flower, adjacent to the Galen Center. Driveways dot the street, with the highest number occurring between Hoover and McClintock, where there are numerous parking lots and vehicular access points. Utility cabinets are present at various places along Jefferson Boulevard, including some that are impeding the pedestrian pathway.

Because USC students frequently travel by bike and on foot and many are transit-riders, the University recognizes the importance of supporting sustainable modes of transportation, such as biking, walking, and transit while assuring a balanced street design for all users.

THE VISION FOR JEFFERSON BOULEVARD

Over time, Jefferson Boulevard should develop into a street that is:

- Designed to more equitably balance all travel modes, providing facilities and amenities for bike riders, pedestrians, and transit users.
- Easy, pleasant, and safe to cross.
- Pleasant to walk along and friendly to people of all ages and abilities.
- Well-connected into the City’s growing bike network, providing a safe and comfortable place to bike ride.

In order to fulfill this vision, there are several main improvements planned:

- Remove on-street parking and configure street with two west-bound lanes, two east-bound lanes, while maintaining the median and turn lane.
- Widen sidewalks from 10 ft average to 14 ft average, where space permits.
- Add 7 ft bike lanes east- and west-bound along the curb edge, where space permits.
- Add pedestrian and bike amenities, such as lighting, benches, signage, and bike racks.
- Plant regularly-spaced trees, with options for bio-swale infiltration planting and understory parkway planning.
- Enhance crosswalks.

Streetscape improvements will be implemented in phases. Phase I will occur from Orchard Avenue to Hoover Avenue on the north side of Jefferson Boulevard and south side improvements will occur from Orchard Avenue to the Trousdale Parkway entrance. Streetscape improvements for the rest of Jefferson Boulevard from Vermont Avenue to Flower Street, will occur in future phases.



Figure B.1.a: Streetscape Improvement Areas (Specific Plan Subareas also Depicted)

IMPROVEMENTS SUMMARY

IMPROVEMENT AREA 1

- Jefferson Boulevard, north side: Orchard Avenue to Hoover Street
- Jefferson Boulevard, south side: Orchard Avenue to the Trousdale Parkway, campus entrance

IMPROVEMENT AREA 2

- Jefferson Boulevard, north side: Vermont Avenue to Orchard Avenue and Hoover Street to Flower Street
- Jefferson Boulevard, south side: Vermont Avenue to Orchard Avenue and Trousdale Parkway to Flower Street

PHASE 1 - *To be implemented during development of the USC University Village project.*

Area 1:

- 4 ft sidewalk widening both sides of Jefferson Boulevard, 14ft sidewalk width
- Other streetscaping to include:
 - Addition of bicycle lane on both sides of the street (removal of on-street parking)
 - Trees and understory planting, paving enhancement, and new street lighting
 - Directional and wayfinding signage at key nodes
 - Addition of street furniture such as trash cans, benches, and bicycle racks
 - Enhanced bus waiting areas and new / enhanced crossings

Area 2:

- Removal of on-street parking and addition of a bike lane with buffer, with or without vertical separation. Sharrow markings to be used where bicycle lane does not fit. *Feasibility and appropriateness of removal of on-street parking will be determined during design phases by responsible party / owner.*

PHASE 2 - *To be implemented upon future redevelopment of adjacent parcels*

Area 1:

- Already built-out

Area 2:

- 4 ft sidewalk widening both sides of Jefferson Boulevard, 14ft sidewalk width
- Other streetscaping to include:
 - Relocation of bike lane to match new curb.
 - Trees and understory planting, paving enhancement, and new street lighting
 - Directional and wayfinding signage at key nodes
 - Addition of street furniture such as trash cans, benches, and bicycle racks
 - Enhanced bus waiting areas and new / enhanced crossings

STREETSCAPE IMPROVEMENTS DIAGRAM
 PHASE 1
 Figure B.1.b



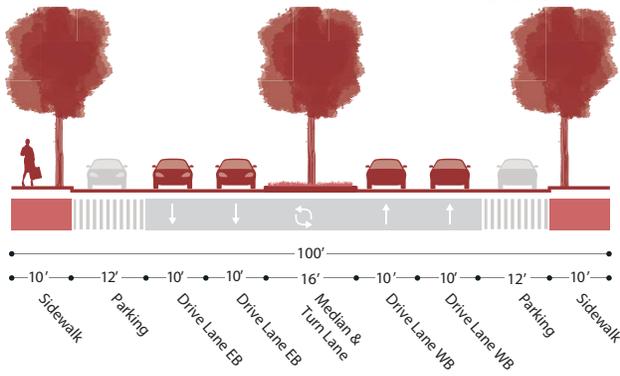
**STREETSCAPE IMPROVEMENTS DIAGRAM
FULL BUILD-OUT**

Figure B.1.c

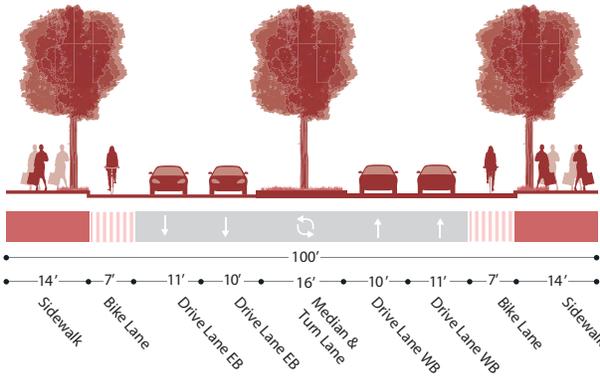


TYPICAL STREET SECTIONS

Section A: Jefferson Boulevard Existing (Figure B.1.d)

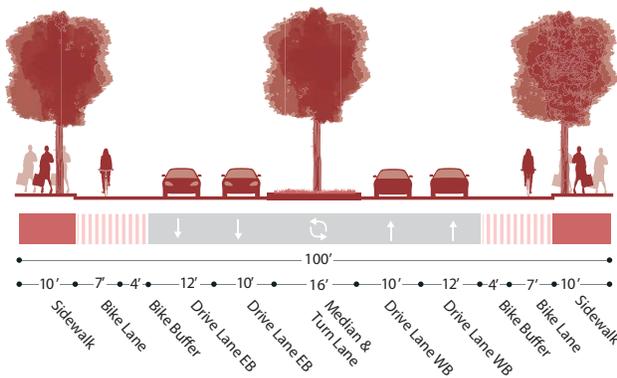


Section B: Proposed Phase I, Area 1 (Figure B.1.e)

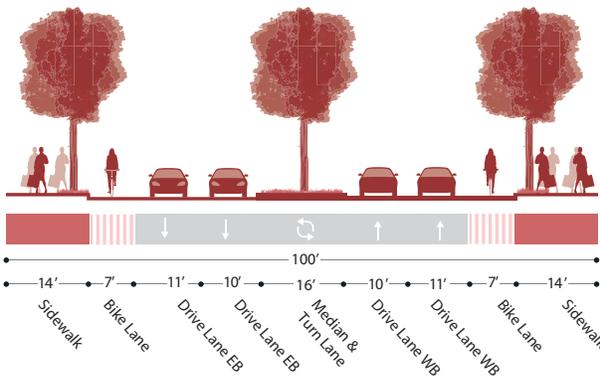


Section C: Proposed Phase I, Area 2 (Figure B.1.f)

Removal of on-street parking, addition of bike lanes with buffer



Section D: Proposed Phase 2, Areas 1 and 2 (Full Build-Out) (Figure B.1.g)



TYPICAL CONDITION 1: TYPICAL MID-BLOCK CONFIGURATION (Full Buildout)

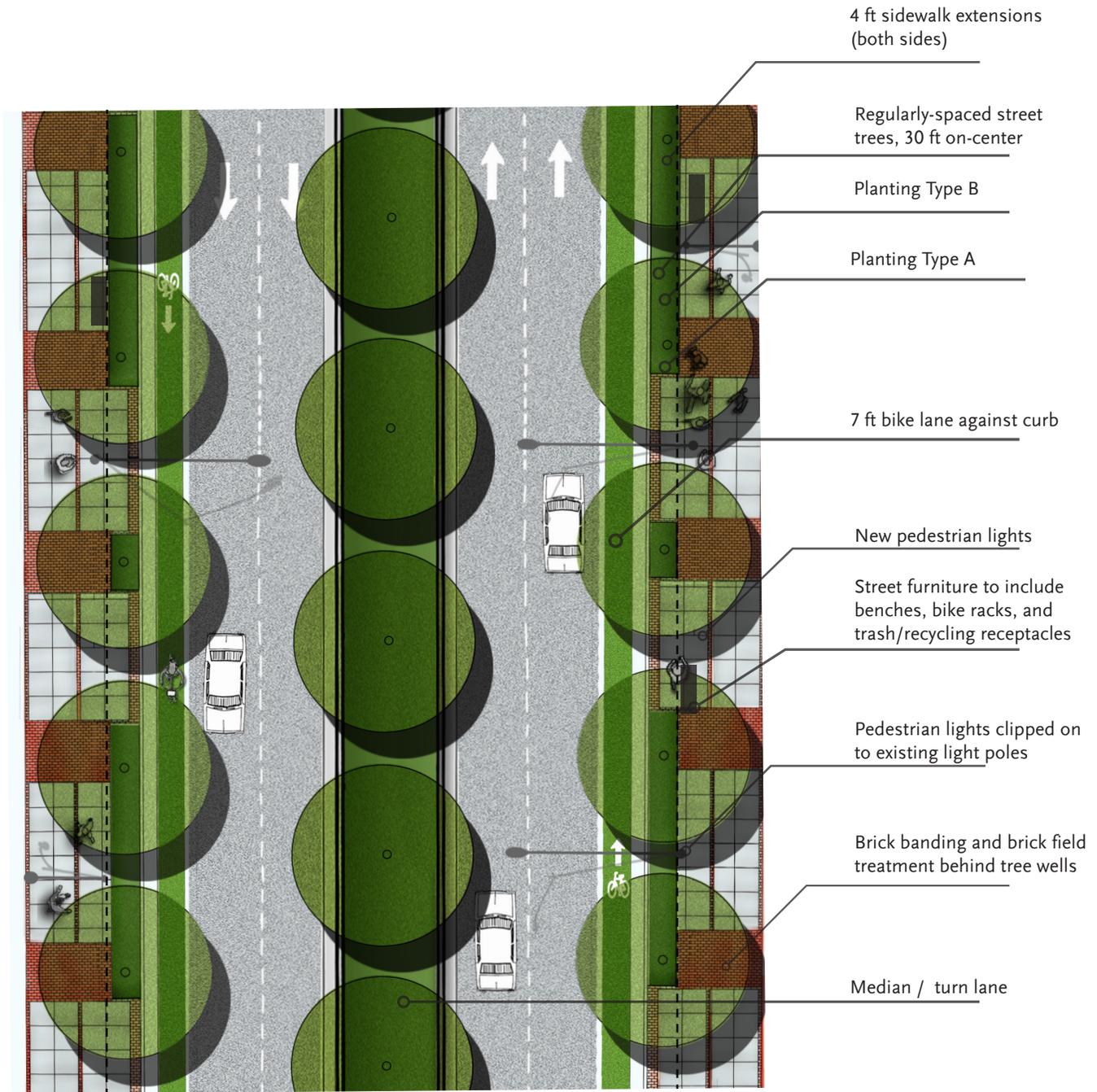
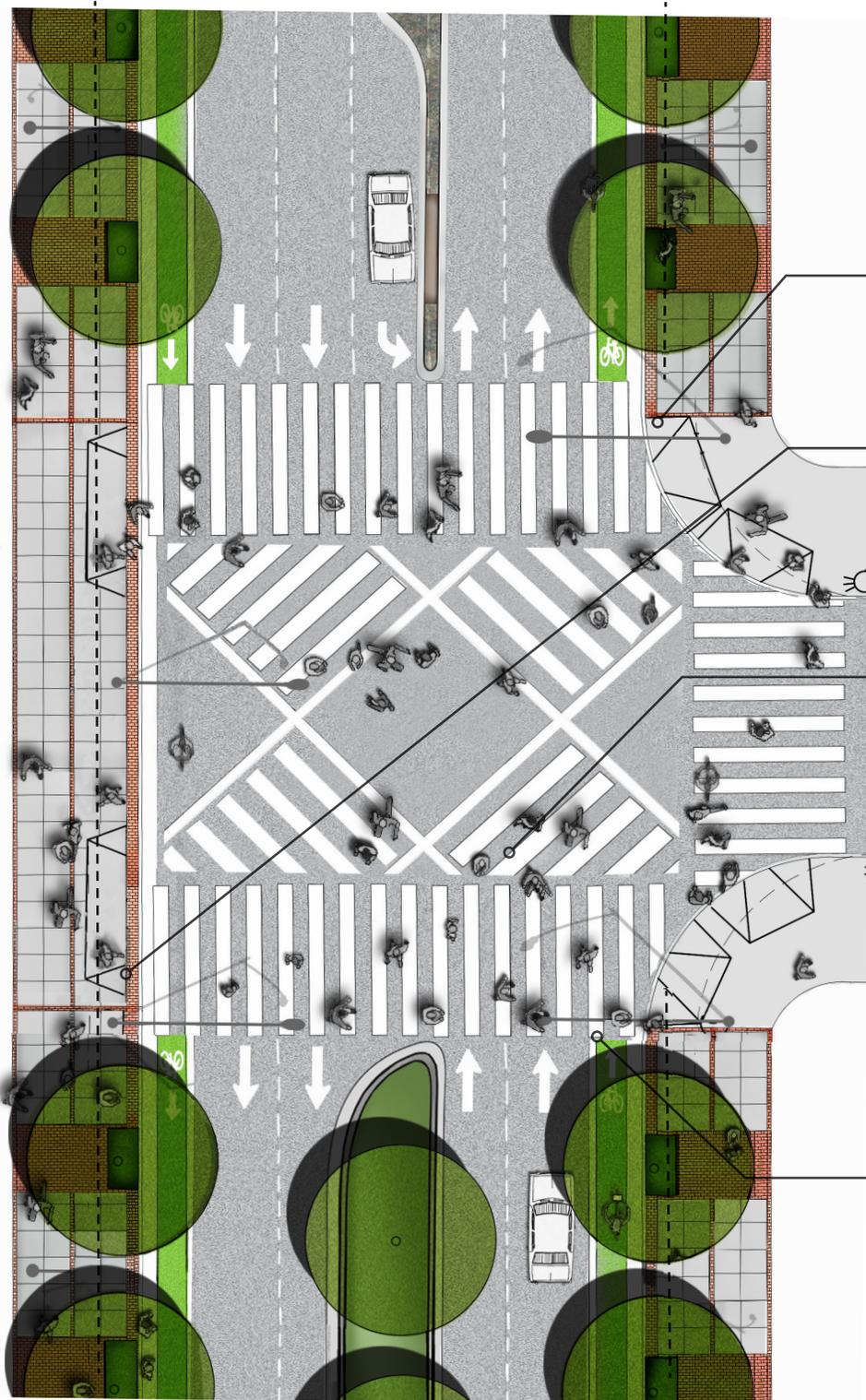


Figure B.1.h

Not to Scale 

TYPICAL CONDITION 2: SCRAMBLE CROSSING (Full Buildout)



Double curb-cuts (to replace the single curb-cuts existing)

Wider curb cuts where necessary adjacent to campus to accommodate diagonally-crossing bicycles and pedestrians

“Scramble” or all-way crossing, gives a full light cycle to people crossing in all directions and has “Continental” or “Zebra” striping for high-visibility

Through-movement or right-turning bicyclists wait for green signal or may walk bike across intersection during crossing phase. Crossing bicyclists dismount and walk bike during crossing phase. Adequate signage and pavement markings should be included to describe allowed movements and educate all users as to how the scramble crossing works.

Figure B.1.i

Not to Scale 

MATERIALS PALETTE



'Ginkgo' / *Ginkgo biloba*
(Figure B1.j)



'Serrated Zelkova' / *Zelkova serrata*
(Figure B1.k)

This section contains the recommended materials palette for Jefferson Boulevard, including guidelines for locating fixtures on the street.

STREET TREES

Plant regularly-spaced trees with understory parkway plantings in coordination with Bureau of Street Lighting required street lights and existing substructures; provide intermittent bio-swale infiltration planting, when feasible, practical, and consistent with design objectives. As the sidewalk extension is introduced, existing street trees should be removed or relocated, as possible.

New street trees should be planted as indicated below. The recommended sidewalk street tree is 'Ginkgo' / *Ginkgo biloba*. As trees need to be replaced or filled in within the median, the recommended replacement tree in that location is 'Serrated Zelkova' / *Zelkova serrata*. Wherever possible, mature trees in the median should be preserved.

Guidelines for location and design of street trees:

- Only male Ginkgos should be planted. The 'Fairmont' cultivar, which is considered fast-growing may be considered if available in sufficient quantity.
- Trees should be placed 2 ft from back of curb.
- Trees should be planted at approximately 30 ft intervals where possible (30 ft on-center).
- Trees should be planted in 36-inch boxes.
- See minimum clear distances from infrastructure, below.

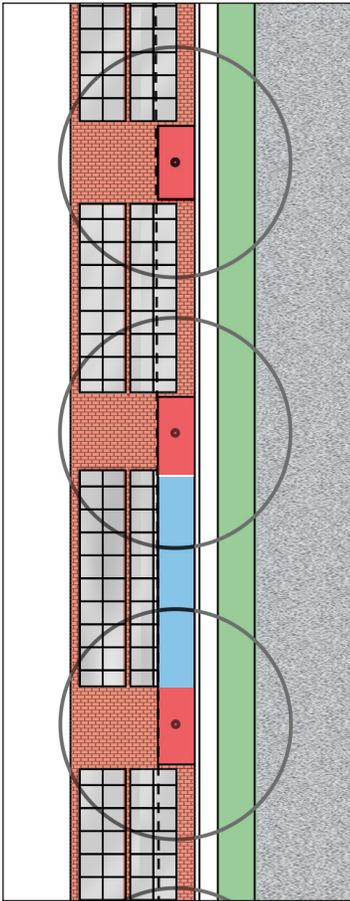
STREET TREE PLANTERS

- 4ft x 8ft tree planted pits placed adjacent to the curb alternating with 4ft x 38ft planting strips.

MINIMUM CLEAR DISTANCES FROM INFRASTRUCTURE*

- Water and gas meters: 6 ft
- Driveway aprons and crosswalks: 6 ft
- Fire Hydrants: 10 ft
- Transit Shelters: 10 ft
- Street Lights: 20 ft
- Electrical Power/Utility Poles: 20 ft
- Alley Entrances: 20 ft
- Intersections (measured from the projected point of curb line intersections): 45 ft

* (From Bureau of Street Services - Street Tree Division)



■ Type A
■ Type B
 (Figure B.1.l)

UNDERSTORY PLANTING

Tree wells should be planted with understory plant species that are:

- Climate-adapted.
- Easy to maintain, requiring little pruning.
- Massed for effect.
- Characterized by a strong visual form.
- Compatible with the USC look and feel already established
- Installed at 5 gallon minimum size, 24-inch, on-center.

There are two typologies of understory planting recommended for Jefferson Boulevard. Type A should be located directly below the Ginkgo Trees in 4' x 8' wells and Type B should be used only in the long 4' x 38' planters, in between the two trees. See diagram left and details, below.

TYPE A:

- Cordyline Festival Grass™ ['Jurred'] / Festival Cordyline
- Approximate size at maturity: height is 2-3 feet; width is 2-3 feet.
- Cordyline should not be cut-back or pruned.

TYPE B:

- Abelia x grandiflora 'Kaleidoscope' / Kaleidoscope Abelia
- Approximate size at maturity: height is 2-3 feet; width is 3-4 feet.
- Kaleidoscope may require some edging, but should be allowed to grow to natural form. They also can be clipped into low hedges.



Type A: Festival Cordyline
(Figure B.1.m)



Type B: Kaleidoscope Abelia
(Figure B.1.n)

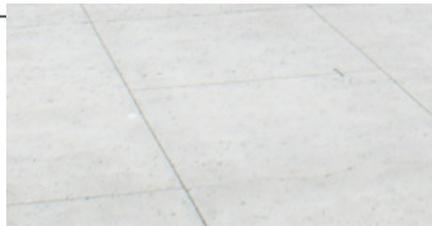
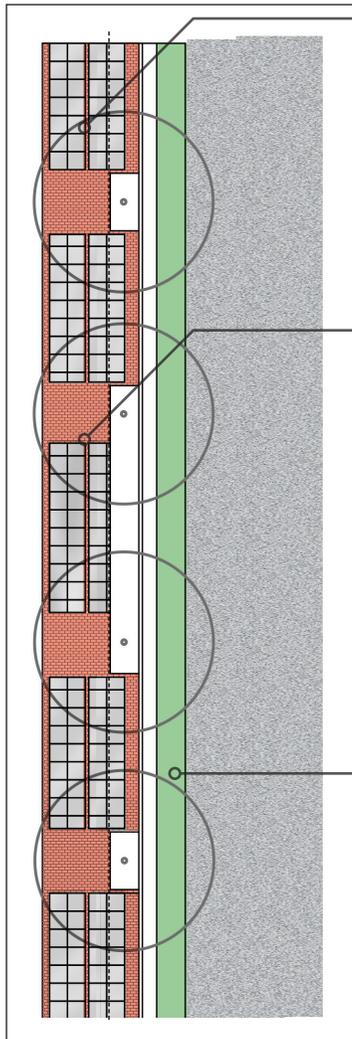


Type B: Kaleidoscope Abelia
(Figure B.1.o)

PAVING AND GROUND PLANE MATERIAL

Paving patterns should follow the already-established rhythm in and around the USC campus, which consists of concrete sidewalks and brick banding along curb lines, around tree wells, and around other areas of focus. Paving materials should include:

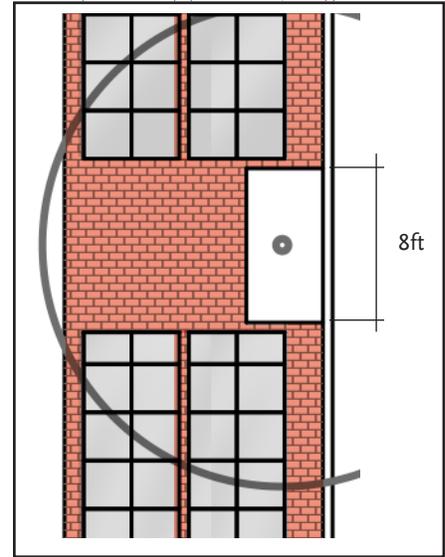
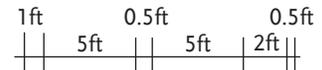
- Natural grey concrete scored 2.5ft x 2.5ft on-center.
- Red brick paving bands adjacent to tree wells as well as banding that parallels the street as drawn, to emphasize pedestrian realm.
- Brick field at back of tree well and where sidewalk is wide.
- Brick trim along curb edge and bus platform edge.
- Green paint for full bike lanes or mixing zones only.
- Bike boxes may be used at signalized intersections, where feasible, to protect cyclists and allow bicyclists to pull in front of waiting traffic.



Concrete Paving (Figure B.1.q)



USC Brick Paving (Figure B.1.r)



Paving Detail (Figure B.1.t)



Painting for bike lanes (full lane or mixing zones only) Figure B.1.s



USC Brick Banding on Sidewalks (Figure B.1.u)

Figure B.1.p



TYPE A: Pedestrian Light Retrofitted to Existing Street Lights (Figure B.1.v)



TYPE B: Typical Pole Light (Figure B1.w)



Typical Bench (Figure B1.x)

STREET LIGHTING

There are two typologies of street lights recommended for Jefferson Boulevard. Both are pedestrian-oriented fixtures that shed light along the sidewalk, rather than the roadway.

TYPE A:

Existing vehicular-oriented street lights should be retained with new pedestrian-oriented LED fixtures clipped on to the poles. These fixtures should be sited as per the following:

- Street lights should be relocated to respond to the new sidewalk extensions (i.e. moved to the back of curb).
- New clip-on pedestrian-oriented LED lights should be added to the existing poles and directed over the sidewalk.
- Pedestrian lights should be located approximately 14 ft above sidewalk grade, to match the height of the stand-alone fixture Type B.
- These light poles should take precedence when locating trees and other street fixtures, establishing a regular and consistent lighting rhythm is important. Width between the street lights currently varies but on average is approximately 120 ft.

TYPE B:

Pedestrian-oriented stand-alone street lights should be added to the sidewalk in between the existing and retrofitted Type A fixtures. These new fixtures should be sited and designed as per the following:

- Pedestrian-oriented fixtures should be spaced between trees so that spacing between light fixtures is 30-60 ft o.c, approximately (to be determined by desired / required lumin level and light study, as well as placement that provides a consistent rhythm).
- Pedestrian LED lights should be directed to the sidewalk.
- New LED lighting to be introduced at bus platforms that illuminates the platform area.

BENCHES

Regularly-spaced benches should be placed adjacent to pedestrian street lights or on either side of tree wells perpendicular to the street.

Design Guidelines:

- Choose a 6ft - 8 ft bench, such as the one pictured, left.
- Two to three benches are recommended per block.
- Stylistically the benches should be consistent with the established streetscape palette within the USC campus as well as new development in Subarea 3.
- Use benches that have a high recycled content and/or are fully recyclable.



Bike Racks (Figure B1.y)

BIKE RACKS

Bike racks should be placed regularly along Jefferson Boulevard.

Recommended locations include:

- Adjacent to bus platform.
- Adjacent to main building entries.
- Near corners.
- In areas with good visibility and lighting for safety.
- Adjacent to Mobility Hub.

Design Guidelines:

- Choose a bike rack, such as those pictured, left that allows for varied configuration options (i.e several racks side by side versus one rack parallel to the curb edge).
- Use racks that have a high recycled content and/or are fully recyclable.
- Use racks that allow for users to secure the bike in at least two places.



Trash Receptacle (Figure B1.z)

TRASH AND RECYCLING RECEPTACLES

Design Guidelines:

- Trash receptacles and recycling receptacles should be located in pairs at corners.
- Receptacles should conform to the USC design standard.
- Choose a model that can be retrofitted to accommodate a recycling receptacle.



Continental striping and scramble crossing pictured, above top (Figure B1.ii)

CROSSWALKS

There are two typologies of crosswalks recommended:

- Standard continental-striped crossings.
- Scramble Crossings with continental striping.
- Each leg of a crosswalk should be a minimum of 15 ft where possible, preferably 20+ feet wide.
- Scramble Crossings should be applied as indicated earlier in this Appendix.



Bike share / mobility hub (Figure B1.iii)

STREET FURNITURE

- Kiosks, street vendors, and other street furnishings, that help to activate the street are encouraged.
- Bike share facilities as well as a Mobility Hub are encouraged along Jefferson Boulevard at key nodes.



City standard bus shelter (Figure B1.iv)

BUS SHELTERS

- One shelter should be located at each bus stop along Jefferson Boulevard.
- Shelters should conform to city standards and should be coordinated with Bureau of Street Services (BSS).



An example of the major signage type (Figure B.1.vi)



An example of the minor signage type (Figure B.1.vii)

SIGNAGE

Wayfinding and directional should be placed on Jefferson Boulevard to help guide pedestrians and bicyclists.

SIGNAGE TYPES

There are two main wayfinding/directional signs included as part of this Streetscape Plan, Major and Minor signage.

MAJOR SIGNAGE TYPES

Major signage types should be appropriately-scaled for both pedestrians and bicyclists. Major Sign types should respect the following location and design guidelines:

- Generally major sign types should be located in areas of high pedestrian and/or bicycle traffic.
- Signs should mark entrances to major destinations, both internal to the USC campus and external.
- Major sign types should include a map of destinations of the surrounding areas along with directional arrows for walking and cycling routes, campus entrances, bicycle parking and amenities, the Mobility Hub, etc.
- Signage should be placed near significant transit locations to help transit users. (e.g. Expo Line Station, Figueroa Corridor).
- Signage types should be consistent with University Park and core campus design character.

MINOR SIGNAGE

Minor signage should help guide pedestrians and bicyclists, mainly with directions and by marking routes. Smaller in scale and intensity than the major signage type. Minor Sign types should respect the following location and design guidelines:

- Minor signage should be placed once or twice per block on both sides of the street, for example at street corners.
- Signage types should be consistent with University Park and core campus design character.
- Signs should orient cyclists to walking and cycling routes, campus entrances, bicycle parking and amenities, the Mobility Hub, etc.

OTHER SIGNAGE

Signage and pavement markings should be included to describe allowed movements for pedestrians, bicycles, and vehicles, especially at Scramble Crossings, and educate all users as to how to share the roadway. Markings and signage should also be used to alert vehicles to the presence of cyclists and pedestrians, to encourage responsible driving and slow speeds. Pavement markings may include one-way markers for cyclists in key areas, such as between McClintock Avenue and Orchard Avenue. Bike maps and educational materials may be made available on campus and/or at the Mobility Hub, north of Jefferson Boulevard.

