4. **TYPICAL STREET SECTIONS**

4.14 **PARK STREET: EARL STREET (NORTH OF GILMAN AV.)**

Neighborhood specific streetscape elements:
- Paving pattern in furnishing zone
- Furniture detailing/materials
- Landscape (trees and biofiltration)
5. SIGNAGE
5. SIGNAGE

5.1 INTRODUCTION

Program Overview

The signage program for streetscapes and places of pause contributes to the identity of the project as a whole. Vehicular and pedestrians will be served by communication elements at major approach streets, entry points, major intersections along the Spine, pedestrian paths, and entries to parks and open space. In addition to contributing to the identity of the project the program will be a user amenity for residents and visitors.

The program elements are designed to

- Be in dialogue with other streetscape elements
- Support unique neighborhood identities
- Spark discovery of points of interest
- Be subtly integrated
- Support circulation
- Identify landmarks
- Mark distance

Visual Language

The signage program for Candlestick Point is based on a highly visual language of imagery, materials and type font. This language makes up the “design palette” and is expressed through:

- Destination Icons derived from photographs to create strong visual link to destination and increase legibility of message
- Materials selected to relate to current land use or environment, or to be visual reminders of former land use or historic activity
- Type Font used consistently for all verbal communication to support cohesive identity of entire development

Design for Development

The detailed Signage Guidelines for building signage for the various land use types; commercial, residential, temporary, retail and prohibited signage is addressed in the 2010 Candlestick Point Design for Development.
5. SIGNAGE

5.2 DESIGN PALETTE

Icons - Images

The use of icons is inspired by visual aspects of a site rich in history as well as physical and natural features. Unlike standard DOT symbols or abstract pictograms, the icons are stylized photographs of actual landmarks or destinations. Therefore, they are specific to this area, are highly communicative, and showcase points of interest.

Designs are based on photographs of landmarks or activities. Examples show a variety of graphic techniques, which would be further studied in order to arrive at a graphic style which is technically feasible to implement as well as highly legible. Once determined, all icons should be consistent throughout the development.

Used in vehicular as well as pedestrian wayfinding, the icons become part of the connective tissue of the networked site. They:

- Identify site landmarks and destinations
- Universally accessible – non verbal and intuitive
- Function in multiple graphic applications throughout site
- Implemented in a range of materials to support neighborhood identity
5. SIGNAGE

5.3 WAYFINDING

Icons - Materials and Techniques

Consistent with the overarching goals of this masterplan, the icons, along with streetscape elements, landscape and graphics support distinct neighborhood identity through their materials, colors and forms.

The following are a range of materials and techniques which are viable applications for icons which are set flush in the sidewalk. Once the neighborhood materials are determined one or more of these options can be selected as appropriate.

In every case all exposed surfaces are designed to be non-slip.

Installation in Finished Throughway

1. Sandblast image in surface of set concrete or pavers. Expose contrasting aggregates, no infill.
2. Sandblast image in surface of set concrete or pavers. Infill with color, black or white epoxy.
3. Image etched in textured metal plate, with or without color, black or white infill. Furnish to contractor for installation in set concrete or pavers.
4. Image formed of individual metal pieces, pre-assembled with welded sub frame. Furnish to contractor for installation while concrete is poured.
5. Impression of image made in laser cut polymer. Furnish to contractor for image to be stamped in wet concrete.

Installation During Throughway Construction

4. Image formed of individual metal pieces, pre-assembled with welded sub frame. Furnish to contractor for installation while concrete is poured.
5. Impression of image made in laser cut polymer. Furnish to contractor for image to be stamped in wet concrete.
5. SIGNAGE

5.4 DESIGN PALETTE

Special Moment Marker - Materials

The material palette includes a range of metals, wood, and digital laminates selected to relate to current land use or environment, or to be visual reminders of former land use or historic activity. The fabrication techniques will enhance this goal. Materials can be used in combinations for “Markers” however, within a specific neighborhood, vehicular and pedestrian signs and icon materials should be consistent.

Potential Materials include:

- Corten steel
- Stainless steel in brushed as well as bead blast finish for use in commercial areas
- Wood for use in residential areas
5. SIGNAGE

5.4 DESIGN PALETTE

Fonts

Novarese in 1962. He based it on Microgramma, which was designed in 1952, but in 1962 included a lower case version.

Novarese believed Eurostile’s linear nature suggested modern architecture, with an appeal both technical and functional.

Eurostile was selected for this Signage and Graphics Master Plan for three reasons. First it is very similar to the Project font established by the Developer for collateral material but due to slight variations it satisfies ADA requirements. Secondly, Eurostile includes lower case. Lastly, the square shapes with rounded corners evoke the appearance of the font used by the United States Navy on all World War II ships, shown here, which is a subliminal nod to a major portion of the history of Hunters Point.

- Exists in all capital letters or capital and lower case versions
- Can be used in range of line weights
- Is ADA compliant

Use of Eurostile

EUROSTILE DEMI

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

EUROSTILE MEDIUM

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

EUROSTILE CONDENSED

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890
5. SIGNAGE

5.5 WAYFINDING - APPROACH STREETS

Signtypes

Vehicular and pedestrian wayfinding, similar to that found in the developed site are modified and implemented at four intersections on improved approach streets. Exact location of wayfinding to be determined at later design phases.

Vehicular Wayfinding on Pole

Pedestrian Wayfinding Small Icons Lead to CP Site
5. SIGNAGE

5.5 WAYFINDING - APPROACH STREETS

Vehicular on Pole

The vehicular wayfinding sign is a vertically mounted list of destinations with arrows and icons.

- Intended to accompany, not replace, standard street sign

Specifications

1. Aluminum panel signs with reflective vinyl copy and solid color background.
2. Details and materials to match DPT and DPW standards.
3. Mount to poles with bands or brackets conforming to DPT and DPW standards.

Bay Trail
Candlestick Center
State Park
Hunters Point

DRAFT SEPTEMBER 19, 2013
5. SIGNAGE

5.5 WAYFINDING - APPROACH STREETS

Pedestrian Wayfinding in Ground Plane

Pedestrian wayfinding icons are set flush into the throughway zone adjacent to furnishing zones, at intersections.

Specifications

1. Icons and arrows mounted flush in sidewalk paving.
2. Slip resistant to match or exceed Title 24 Requirements.
5. SIGNAGE

5.6 WAYFINDING - WITHIN DEVELOPMENT

**Signtypes**

Vehicular and pedestrian wayfinding within the development are located together along The Spine. Additional pedestrian wayfinding occurs at key intersections to reinforce path to water. Exact location of wayfinding to be determined at later design phases.
5. SIGNAGE

5.6 WAYFINDING - WITHIN DEVELOPMENT

**Vehicular on Pole**

The vehicular wayfinding sign is a vertically mounted list of destinations with arrows and icons.

Intended to accompany, not replace, standard street sign

**Specifications**

1. Aluminum panel signs with reflective vinyl copy and solid color background.
2. Details and materials to match DPT and DPW standards.
3. Mount to poles with bands or brackets conforming to DPT and DPW standards.
5. SIGNAGE

5.6 WAYFINDING - WITHIN DEVELOPMENT

Pedestrian Wayfinding in Ground Plane

Pedestrian wayfinding icons are set flush into the sidewalk adjacent to landscape zones, at intersections.

Specifications

1. Icons and arrows mounted flush in sidewalk paving.
2. Slip resistant to match or exceed Title 24 Requirements.
5. SIGNAGE

5.7 INTERSECTION STUDIES

Figure 5.1 - Intersection study locations

LEGEND

Intersection study locations
5. **SIGNAGE**

5.7 **INTERSECTION STUDIES**

Figure 5.2 - LOCATION A - ARELIOUS WALKER DR. + EGBERT AVE.
5. SIGNAGE

5.7 INTERSECTION STUDIES

Figure 5.3 - LOCATION B - HARNEY WAY + EGBERT AVE.
5. **SIGNAGE**

5.7 **INTERSECTION STUDIES**

Figure 5.4 - LOCATION C - EARL ST. + INGERSON AVE.
5. SIGNAGE

5.7 INTERSECTION STUDIES

Figure 5.5 - LOCATION D - HARNEY WAY + 8TH ST.
5. SIGNAGE

5.7 INTERSECTION STUDIES

Figure 5.6 - LOCATION E - P ST. + 8TH ST.
5. SIGNAGE

5.8 SPECIAL MOMENTS

Landmarks

Special places, parks and view corridors and trails and the waterfront become moments for pause. Therefore they represent potential locations and opportunities to communicate strata of history and natural features.

- Physical Geography
- Cultural References
- Historic Events
- Site Artifacts
- Narratives
- Nature
5. SIGNAGE

5.8 SPECIAL MOMENTS

Candlestick Point

The following are a list of potential subjects of strata of history and natural features:

- Muwekma Ohlone
- Arrival of Europeans
  Candlestick Point Named
- Gold Rush Merchant Vessels
- Turn of the Century Settlers
  Cultural Traditions
  Blended Community
- Combined Industrial and Agrarian Land use
- Chinese Shrimping Camps
- Maritime Shipbuilding History
  WWI Dazzle Camouflage
- Influx of Workforce for WWII Shipbuilding
  New Cultural Influences
- Candlestick Park
  New Home for SF Giants
  Last Beatles Concert
  SF 49ers “The Catch”
- The Shoreline
  State Park
  Plants and Animals
  Water Sports/Recreation
  Ecological Restoration and Preservation
5. SIGNAGE

5.8 SPECIAL MOMENTS

Markers in Ground Plane
- Contain text, quotes, poetry, regarding historic events, cultural references

Specifications
1. Mounted flush in sidewalk paving.
2. Slip resistant to match or exceed Title 24 Requirements
3. Quote formed of individual metal pieces, pre-assembled with welded sub frame. Furnish to contractor for installation while concrete is poured.
5. **SIGNAGE - SPECIAL MOMENTS**

### 5.8 SPECIAL MOMENTS

**Vertical Markers**

- Act as highly visual markers
- Contain text, quotes, poetry, regarding historic events, cultural references, physical aspects of the site and natural features
- Deliver content in a way designed to reach a range of age groups
- Be consistent in height and form, fabricated in materials consistent with other elements in the area
- Meet all ADA and Title 24 requirements, text height regulations for seated viewers and text in Braille
- Be multilingual through scanned QR code, which will also link to expanded information and video and audio programs

**Specifications**

1. Clad with either marine grade stainless steel or corten steel.
2. Major titles are cut through monument.
3. Secondary copy is etched and filled with epoxy infill, in some cases cut through.
4. Images to be installed flush in face of sign. Fabricate from Custom High Pressure Laminate (CHPL) or from photosensitive anodized aluminum (PAA).
5. Raised copy and Braille Grade II installed in locations shown and as required to meet or exceed all Title 24 requirements.
6. Provide tactile warning area around base of sign, in area shown.
7. QR Code links to expanded information

**DRAFT September 19, 2013**

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**WHAT'S IN A NAME?**

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**A PINNACLE ROCK FIRST NOTED IN 1781 BY THE DE ANZA EXPEDITION.
ROCK FIRST NOTED IN THE 19TH-CENTURY PRACTICE OF BURNING ABANDONED SAILING SHIPS AS THEY SUNK THEIR RESEMBLED LIGHTED CANDLESTICKS WHICH WAS ONCE IN THE AREA AND ALSO KNOW AS THE CANDLESTICK.**

**PLENTIFUL BIRDCURLEW LONG-BILLED**

**BEFORE FILLING OPERATIONS BEGAN IN 1894 ON THE SHORE THAT HAD A LANDFORM IN THE SHAPE OF A CANDELABRA THE LOCAL SHORELINE WAS ESTABLISHED HERE NAMED AFTER AN EIGHT FOOT HIGH PINNACLE THAT RESEMBLED A CANDLESTICK.**

**COAST GUARD SURVEY STATION**

---

**Candlestick Point Streetscape Master Plan**
5. SIGNAGE

5.8 SPECIAL MOMENTS

Vertical Markers
5. SIGNAGE

5.8 SPECIAL MOMENTS

Angled Markers

- Includes all qualities of Vertical Markers
- Increases area for content, for example longer text, multiple images, diagrams, lists, quizzes, etc.
- Is lower height to allow view beyond

Specifications

1. Clad with either marine grade stainless steel or corten steel.
2. Major titles are cut through monument.
3. Secondary copy is etched and filled with epoxy infill, in some cases cut through.
4. Images to be installed flush in face of sign. Fabricate from Custom High Pressure Laminate (CHPL) or from photosensitive anodized aluminum (PAA).
5. Raised copy and Braille Grade II installed in locations shown and as required to meet or exceed all Title 24 requirements.
6. Provide tactile warning area around base of sign, in area shown.
7. QR Code links to expanded information
5. SIGNAGE

5.8 SPECIAL MOMENTS

Angled Markers

- Includes all qualities of Vertical Markers
- Increases area for content, for example longer text, multiple images, diagrams, lists, quizzes, etc.
- Focuses view on an entire area as a means to relate major historic event, entire district, series of large artifacts, major activity or feature
- Further increases area for content, including room for multiple topics or different parallel aspects of same topic
- Includes all qualities of Vertical Elements

Specifications

1- Clad with either marine grade stainless steel or corten steel.
2- Major titles are cut through monument.
3- Secondary copy is etched and filled with epoxy infill, in some cases cut through.
4- Images to be installed flush in face of sign. Fabricate from Custom High Pressure Laminate (CHPL) or from photosensitive anodized aluminum (PAA).
5- Raised copy and Braille Grade II installed in locations shown and as required to meet or exceed all Title 24 requirements.
6- Provide tactile warning area around base of sign, in area shown.
7- QR Code links to expanded information
5. SIGNAGE

5.8 SPECIAL MOMENTS

View Frame Markers

- Includes all qualities of Vertical Markers
- Focuses view on an entire area as a means to relate major historic event, entire district, series of large artifacts, major activity or feature
- Further increases area for content, including room for multiple topics or different parallel aspects of same topic

Specifications

1. Clad with either marine grade stainless steel or corten steel.
2. Major titles are cut through monument.
3. Secondary copy is etched and filled with epoxy infill, in some cases cut through.
4. Images to be installed flush in face of sign. Fabricate from Custom High Pressure Laminate (CHPL) or from photosensitive anodized aluminum (PAA).
5. Raised copy and Braille Grade II installed in locations shown and as required to meet or exceed all Title 24 requirements.
6. Provide tactile warning area around base of sign, in area shown.
7. QR Code links to expanded information
5. SIGNAGE

5.9 CODE COMPLIANCE

All signage will conform to requirements of the CBC, in combination with other codes that are applicable to the Project.

Non-verbal signage, using icons and other symbols alone for wayfinding, will be placed in clear and accessible locations and will use icons that identify destinations in a clear and straightforward manner.

All fonts used shall conform to Title 24 and ADA requirements, and shall be of materials placed on backgrounds of sufficient contrast for easy legibility.

Size of type on overhead signs is to follow DOT standards for vehicular directional signage, as well as Title 24 and ADA requirements.

Signage shall be located at appropriate heights for easy accessibility to ambulatory and non-ambulatory readers.

Braille and tactile copy is to conform to the requirements of Title 24 and ADA, is to be clear and easily used, and is to be reviewed by Lighthouse For The Blind prior to installation.

Culture and Historic markers could include QR codes so the viewer could scan with a smart phone and open a link to expanded information, multiple languages, as well as video and audio clips.
5. SIGNAGE

5.10 UNIVERSAL DESIGN AND ACCESSIBILITY

All signage will conform to requirements of the CBC, in combination with other codes that are applicable to the Project.

Non-verbal signage, using icons and other symbols alone for wayfinding, will be placed in clear and accessible locations and will use icons that identify destinations in a clear and straightforward manner.

All fonts used shall conform to Title 24 and ADA requirements, and shall be of materials of and placed on backgrounds of sufficient contrast for easy legibility. No specular finishes should be used.

Size of type on overhead signs is to follow DOT standards for vehicular directional signage, as well as Title 24 and ADA requirements.

Signage shall be located at appropriate heights for easy accessibility to ambulatory and non-ambulatory readers. Generally this falls between 48” and 60” above grade.

Braille and tactile copy is to conform to the requirements of Title 24 and ADA, is to be clear and easily used, and is to be reviewed by Lighthouse For The Blind prior to installation. Set Braille flush left or centered below tactile copy.

Culture and Historic markers could include QR codes so the viewer could scan with a smart phone and open a link to expanded information, multiple languages, as well as video and audio clips. The design team is very interested in pursuing this approach.

Alternately, they may be labeled with a Braille/ tactile identification, and the developer shall provide a bound guidebook with a combination of Braille, raised symbol, minimum 18 point printed black text on white, and audio disk content for use but disabled visitors when on the site.

The telephone number for the disability access resource center at the San Francisco main library could also be provided. This will instruct the visitor on how to obtain alternate information formats.

Graphics placed in the throughway shall be highly slip resistant. Testing under ANSI E 303 standards may be required for proposed assemblies; alternates include constructing the graphic assemblies using known compliant materials and previously tested assemblies.

Broom finish concrete, sandblasted patterns in standard paving surfaces, inlaid metal that is text, line or line art is preferred. The width of metal surfaces in one direction should not exceed ½”, and the overall ratio of pattern to non-slip background must be no more than 20% to 25%, depending on the design. Large area of polished material, more than a few inches across, are to be avoided. Text should be at least double spaced.
5. SIGNAGE

5.10 UNIVERSAL DESIGN AND ACCESSIBILITY

<table>
<thead>
<tr>
<th>Text Cap Height</th>
<th>Viewing Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot;</td>
<td>30’-0”</td>
</tr>
<tr>
<td>1½&quot;</td>
<td>45’-0”</td>
</tr>
<tr>
<td>2”</td>
<td>60’-0”</td>
</tr>
<tr>
<td>2½”</td>
<td>75’-0”</td>
</tr>
<tr>
<td>3”</td>
<td>90’-0”</td>
</tr>
<tr>
<td>3½”</td>
<td>105’-0”</td>
</tr>
<tr>
<td>4”</td>
<td>120’-0”</td>
</tr>
<tr>
<td>4½”</td>
<td>135’-0”</td>
</tr>
<tr>
<td>5”</td>
<td>150’-0”</td>
</tr>
<tr>
<td>5½”</td>
<td>165’-0”</td>
</tr>
<tr>
<td>6”</td>
<td>180’-0”</td>
</tr>
<tr>
<td>6½”</td>
<td>195’-0”</td>
</tr>
<tr>
<td>7”</td>
<td>210’-0”</td>
</tr>
</tbody>
</table>
5. SIGNAGE

5.11 REGULATIONS

STANDARD REGULATORY SIGNS
- Standard regulatory or street signage shall be mounted to traffic signal and light standards or sign frames conforming to DPT and DPW standards. It is the goal of this Master Plan that signage is collected on singular locations rather than additional poles added per sign.
- Signs shall be constructed and mounted with fasteners or bands to conform to DPT and DPW standards.

TEMPORARY SIGNS
- Other than holiday decorations, temporary signs in neighborhood commercial districts shall be limited to one non-illuminated or indirectly illuminated sale or lease sign per building under actual construction or alteration, not to exceed 18 square feet, and shall conform to all other regulations of the Sign Code.
- Signs shall be promptly removed upon completion of the activity to which they pertain.

SIGNS NOT PERMITTED IN STREETSCAPE
- Animated signs.
- Billboards.
- Inflatable signs.
- Portable signs.
- Roof signs.
- Balloons, high intensity beam lights, ribbons, tinsel, small flags, pennants, streamers, spinners, metal disks, pinwheels, wind signs, or other similar devices designed to move in the wind.
- Flashing signs.

PRIVATE SIGNAGE
- Signage guidelines for building signage are a part of the Major Phase Master Plan, and will be defined prior to sub phase approvals.
- Signage guidelines will follow the intent of the 2010 Candlestick Point Design for Development.

CUSTOM SIGNAGE MAINTENANCE
- Custom signage is to be maintained by either (delta cost above standard cost to be paid by developer) or (CFD/ Master HOA or Building HOA)
5. **SIGNAGE**

5.12 **GLOSSARY**

**BASELINE**
A typographic term referring to the imaginary line along which the bottom of most lowercase and all capital letters align.

**CAP/ LOWER CASE**
A typographic term referring to a mix of initial upper case and following lower case letters.

**CAPITAL HEIGHT**
A typographic term referring to the height of a capital letter. The letter “E” should be used as the example in all cases of type measurement.

**CENTERED**
A typographic term referring to two or more lines of type, set to align one above the other centered on each lines overall length.

**FLUSH LEFT**
A typographic term referring to two or more lines of type, set to align vertically at a left margin. (Flush right is the opposite).

**LETTER SPACING**
The space between letters in a word. (Word spacing, line spacing similar).

**LOGOTYPE**
Name displayed in specially drawn letters.

**RETURN**
The side (or the depth if recessed) of a dimensional letter, symbol or sign.

**SYMBOL**
The standardized mark, letter, or abbreviation used to represent something as an image. It is recommended to accompany the use of symbols with supporting copy when possible.
5. SIGNAGE

5.13 DEFINITIONS

AREA OF A SIGN
All signs except on windows, awnings or marquees
The entire area within a single continuous rectangular perimeter formed by extending lines around the extreme limits of writing, representation, emblem or any figure of similar character, including any frame or other material or color form in an integral part of the display or used to differentiate such sign from the background against which it is placed, and any sign tower. Where a sign has two or more faces, the area of each face shall be deemed separate in determining area of the sign with the area of the sign taken as the area of one face.

Window signs.
The area of any sign displayed in or on a window shall be the area within a rectangular perimeter formed by extending lines around the extreme limits of writing, representation, emblem or any figure of similar character depicted.

Awnings or Marquee signs.
All sign copy on each face shall be computed within one rectangular perimeter formed by extending lines around the extreme limits of writing, representation, emblem or any figure of similar character depicted.

AWNING
A light roof-like structure supported entirely by the exterior wall of a building, consisting of a fixed removable frame covered with cloth, plastic, or metal, extending over doors, windows or show windows with the purpose of providing protection from the sun and rain and/or for embellishment of the façade.

BUSINESS SIGN
A sign which directs attention to a business, commodity, service, industry or other activity which is sold, offered, or conducted, other than incidentally, on the premises upon which the sign is located, or to which it is affixed.
Where a number of Commodities with different brand names or symbols are sold on the premises, up to 1/3 of the area of a business sign, may be devoted to the advertising of one or more of those Commodities by brand name or symbol as an accessory function of the business sign, provided that such advertising is integrated with the remainder of the business sign.

FIN SIGN
A sign that is perpendicular to the wall to which it is attached.

FREESTANDING
A sign in no part supported by a building.

HEIGHT OF A SIGN
The vertical distance from the uppermost point used in measuring the area of a sign, as defined above, to the ground immediately below such point.

MARQUEE
A permanent structure attached to and supported by a building; including any object or decoration attached to or part of said marquee.

NAME PLATE
A sign affixed flat against a wall of a building and serving to designate only the name or the name and professional occupation of a person or persons residing in or occupying space in such building.

PROJECTING SIGN
A sign which projects beyond a property line or a building setback line.

PROJECTION
The horizontal distance by which the furthestmost point used in measuring the area of a sign, as defined above, extends beyond a property line or a building setback line. A sign placed flat against a wall of a building parallel to a street or alley shall not be deemed to project for the purposes of this definition. A sign on an awning, canopy or marquee shall be deemed to project to the extent that such sign extends beyond a street property line or a building setback line.

PROPERTY LINE
Any line separating private property from public rights of way and from adjacent property.

ROOFLINE
The upper edge of any building wall or parapet, exclusive of any sign tower.

ROOF SIGN
A sign or any portion thereof erected or painted on or printed on or over the roof covering any portion of a building, and either supported on the roof or on an independent structural frame or sign tower, or located on the side or roof of a penthouse, roof tank, roof shed, elevator housing or other roof structure.
5. SIGNAGE

5.13 DEFINITIONS

SIGN
Any structure, part thereof, or device or inscription which is located upon, attached to or printed, painted, projected or represented on any land or right-of-way, or on the outside of any building or structure including an awning, canopy, marquee or similar appendage, or affixed to or visible through the glass on the outside of or inside of a window so as to be seen from the outside of the building, and which displays or includes any numeral, letter, work, model, banner, emblem, insignia, symbol, device, light, trademark, used as an announcement, advertisement, attention-arrestor, direction, warning, or designation by or of any person, firm, group, organization, place, commodity, product, service, business, profession, enterprise or industry. A “sign” is composed of those elements included in the area of the sign as defined above, exclusive of the supports, uprights and framework of the display. Two or more faces shall be deemed to be a single sign if such faces are contiguous in the same plane. Also, on awnings or marquees, two or more faces shall be deemed to be a single sign if such faces are on the same awning or marquee.

SIGN TOWER
A tower, whether attached to a building, freestanding or an integral part of a building, which is erected for the primary purpose of incorporating a sign, or having a sign attached thereto.

WIND SIGN
Any sign composed of two or more banners, flags or other objects, mounted serially and fastened in such a manner as to move upon being subjected to pressure by wind or breeze.

WINDOW SIGN
A sign printed or painted directly on the surface of a window glass or placed in front of or directly behind the surface of a window glass.

SYMBOL
The standardized mark, letter, or abbreviation used to represent something as an image. It is recommended to accompany the use of a symbol with supporting copy when possible.

WALL SIGN
Sign printed or painted directly on the wall or placed flat against a building wall with its copy parallel to the wall to which it is attached and not protruding more than the thickness of the sign cabinet.
5. SIGNAGE
6. DETAILS

6.1 STREET TREE PLANTING GUIDELINES & DETAILS

General Guidelines
A list of preferred street trees for each street type has been assembled with the help of an expert team of horticulturists, including Hort Science, renowned and well respected California based consulting arborists. Ongoing review by the SFDPW’s Department of Urban Forestry (DUF) was also part of the selection process. Recommended tree species are selected using the following criteria:

- Character
- Scale
- Micro-climate, especially the frequent periodic cold and salt-laden wind and fog
- Native and acclimated species that are water-conserving
- Moisture tolerance
- Density
- Urban performance
- Soils
- Management and maintenance
- Visibility guidelines

Street Tree Planting

Tree Spacing:
Tree spacing shall be consistent and appropriate for the scale of the selected tree species. Typical street tree spacing will meet San Francisco Planning Code guidelines by providing 1 tree of minimum 36” box size for each 20’ of street frontage. Medium and large trees may be spaced every 20-35’, per Better Streets Plan spacing guidelines. Typically, street trees shall be planted on both sides of the street and in medians 5 feet or greater in width. Tree size, height and canopy form shall be regular and consistent in each street type unless otherwise noted. Approximately 2,500 street trees are estimated to be planted in Candlestick Point.

Visibility at Intersections:
At intersections, trees shall be planted in accordance with the Department of Public Works Director’s Order No. 169,946; or a minimum of 25 feet on the approach side, and 5 feet from the crosswalk on the far side of any intersection. Trees and plantings located in the sidewalk area shall not obscure traffic signals, signs or street lights.

Tree Size:
Typical tree size at planting shall be 36” box size minimum, unless otherwise noted.

Tree Wells:
Tree wells should be 4 feet wide by 4 feet long, minimum. A larger typical tree well size of 5 feet wide by 5 feet long is recommended.

Planting & Installation:
Planting and installation techniques shall be in accordance with the highest level of horticultural practice and are to meet City standards. This includes conformance with the urban greening requirements and guidelines of the SF Better Streets Plan. All planting pits are to include underdrainage and horticulturally excellent planting medium. All new trees shall be irrigated and robustly staked to support the trees against the strong prevailing winds. A high level of attention to horticultural best practices will promote the long term viability and sustainability of the street trees.

Preferred and Alternative Tree Species:
The Plan encourages street tree species to be selected from the proposed preferred list for each respective street type. Street tree species not included in the proposed list are permissible as substitutions if they meet the listed formal, character, and horticultural criteria and if selected by a certified arborist and approved by the SFDPW Department of Urban Forestry. The selection of alternative tree species shall comply with the requirements of this Master Streetscape Plan and must follow the street tree characteristics listed in “Street Tree Character” for each particular street type.

It is intended that a single tree species (or species mix) be planted the entire length of a named street. Once a specific species (or species mix) has been planted on a portion of a street, the same species must be installed on the remainder of the roadway in order to provide a consistent horticultural theme. The only possible exception to this requirement are for streets that, by virtue of their length, significantly change character, street width or typology along their length: Arelious Walker Drive, Harney Way, Egbert Avenue, Crisp Avenue and Fischer Street. On these streets, the street typology shall govern.

A list of preferred street trees for each street type has been assembled with the help of an expert team of horticulturists, including Hort Science, renowned and well respected California based consulting arborists. Ongoing review by the SFDPW’s Department of Urban Forestry (DUF) was also part of the selection process. Recommended tree species are selected using the following criteria:

- Character
- Scale
- Micro-climate, especially the frequent periodic cold and salt-laden wind and fog
- Native and acclimated species that are water-conserving
- Moisture tolerance
- Density
- Urban performance
- Soils
- Management and maintenance
- Visibility guidelines

General Guidelines
A list of preferred street trees for each street type has been assembled with the help of an expert team of horticulturists, including Hort Science, renowned and well respected California based consulting arborists. Ongoing review by the SFDPW’s Department of Urban Forestry (DUF) was also part of the selection process. Recommended tree species are selected using the following criteria:

- Character
- Scale
- Micro-climate, especially the frequent periodic cold and salt-laden wind and fog
- Native and acclimated species that are water-conserving
- Moisture tolerance
- Density
- Urban performance
- Soils
- Management and maintenance
- Visibility guidelines

Street Tree Planting

Tree Spacing:
Tree spacing shall be consistent and appropriate for the scale of the selected tree species. Typical street tree spacing will meet San Francisco Planning Code guidelines by providing 1 tree of minimum 36” box size for each 20’ of street frontage. Medium and large trees may be spaced every 20-35’, per Better Streets Plan spacing guidelines. Typically, street trees shall be planted on both sides of the street and in medians 5 feet or greater in width. Tree size, height and canopy form shall be regular and consistent in each street type unless otherwise noted. Approximately 2,500 street trees are estimated to be planted in Candlestick Point.

Visibility at Intersections:
At intersections, trees shall be planted in accordance with the Department of Public Works Director’s Order No. 169,946; or a minimum of 25 feet on the approach side, and 5 feet from the crosswalk on the far side of any intersection. Trees and plantings located in the sidewalk area shall not obscure traffic signals, signs or street lights.

Tree Size:
Typical tree size at planting shall be 36” box size minimum, unless otherwise noted.

Tree Wells:
Tree wells should be 4 feet wide by 4 feet long, minimum. A larger typical tree well size of 5 feet wide by 5 feet long is recommended.

Planting & Installation:
Planting and installation techniques shall be in accordance with the highest level of horticultural practice and are to meet City standards. This includes conformance with the urban greening requirements and guidelines of the SF Better Streets Plan. All planting pits are to include underdrainage and horticulturally excellent planting medium. All new trees shall be irrigated and robustly staked to support the trees against the strong prevailing winds. A high level of attention to horticultural best practices will promote the long term viability and sustainability of the street trees.

Preferred and Alternative Tree Species:
The Plan encourages street tree species to be selected from the proposed preferred list for each respective street type. Street tree species not included in the proposed list are permissible as substitutions if they meet the listed formal, character, and horticultural criteria and if selected by a certified arborist and approved by the SFDPW Department of Urban Forestry. The selection of alternative tree species shall comply with the requirements of this Master Streetscape Plan and must follow the street tree characteristics listed in “Street Tree Character” for each particular street type.

It is intended that a single tree species (or species mix) be planted the entire length of a named street. Once a specific species (or species mix) has been planted on a portion of a street, the same species must be installed on the remainder of the roadway in order to provide a consistent horticultural theme. The only possible exception to this requirement are for streets that, by virtue of their length, significantly change character, street width or typology along their length: Arelious Walker Drive, Harney Way, Egbert Avenue, Crisp Avenue and Fischer Street. On these streets, the street typology shall govern.
6. DETAILS

6.1 STREET TREE PLANTING GUIDELINES & DETAILS

A street tree's ability to grow and stay healthy is largely dependent on the amount of root space provided. Larger soil volumes will generally yield larger trees. Provide sufficient soil volumes for tree species planted. For use as a general guideline, a minimum soil volume of 8 cubic yards per tree is recommended with at least 3 feet 6 inches of soil depth. However, it will be advantageous to exceed this minimum to ensure the long term health and viability of newly planted street trees. Illustrations to this point are on the following pages.

Several design methods can be used to achieve adequate soil volumes:

- Continuous Planting Trench:
  Wherever possible, trees should be installed in a continuous planting trench with at least 3 feet 6 inches of soil depth. Where there is no sidewalk paving, such as in open landscape and median areas, this is easily achieved. In paved areas, alternate methods must be used to support the sidewalk areas between the tree wells.

- Open Soil Areas:
  Open soil areas are unpaved areas surrounding a tree, typically open planting areas or ornamental gravel mulch areas.

- Structural Soils:
  Structural soils support sidewalk pavements while also preventing excess compaction and allowing adequate void spaces for needed oxygen exchange, water drainage and root growth. By allowing the penetration of the roots into the structural soil level, rather than above the surface, pavement heaving will also be inhibited. Structural soils have the additional benefit of being highly permeable and free-draining.

- Tree Cells:
  "Silva Cell" type tree cells support sidewalk pavements via a modular cellular frame and deck structure while also preventing compaction and allowing adequate porosity in a manner similar to structural soils, but using conventional planting soil as backfill

- Root Paths:
  Root paths are constructed paths that use aeration or drainage strips to give roots a way to grow under paving and connect to adjacent green spaces or open planting areas.

Soil Volume & Tree growth

Planting and installation techniques for street trees are to be in accordance with the highest level of good horticultural practice. This includes, in addition to providing adequate volumes of high-quality planting soil medium, providing: 1) continuous underdrains (typically 4-inch diameter perforated pipe in a 12-inch by 12-inch bed of drain rock wrapped in filter fabric); 2) heavy-duty tree staking or guying to deal with the Candlestick Point’s strong prevailing winds; and 3) high-efficiency, water conserving drip irrigation.

- Storm Water Management:
  Many of the streetscape plantings at Candlestick Point will perform a vital role in capturing, treating and retaining storm water runoff from adjacent streets and sidewalks. To achieve this, many streets will incorporate bioswales, flow-through biofiltration tree well planters and bioretention areas. The prevalence of these features will require the use of sandy loam soil mixes with high percolation rates, structural soils and underdrains to ensure soil permeability and adequate infiltration rates. It will also require the use of trees, shrubs and ground covers that can tolerate seasonal inundation and saturated soil conditions.

Figure 6.1 – Soil Volume & Tree Growth
6. DETAILS

6.1 STREET TREE PLANTING GUIDELINES & DETAILS

General planting guidelines and details for three typical street tree planting scenarios are presented on the following pages:

- Condition 1: Open Planters/Parkway Strips
- Condition 2: Tree Wells

### Planting Condition 1 - Street Trees in Open Planting Areas / Parkway Strips

On residential and non-commercial streets where the curbside sidewalk landscape zone (also referred to as the ‘parkway strip’ or ‘furnishing zone’) is not being used for flow-through biofiltration, street trees may be planted in open planting areas. These parkway strips will typically feature shrub, perennial and ground cover plantings to add visual interest and richness to the streetscape.

The length and width of the parkway strips will vary, but a width of 4 to 5 feet is typical. The planted areas will generally be extended to include the end block and mid block bulb-outs. On streets where there is parallel parking, a 2 foot curbside stepout will be provided and the parkway strip will need to be interrupted with walkway passages. Providing one walkway passage per parallel parking stall is recommended. On streets where there is no curbside parking, the stepout can be omitted and the parkway strips can be longer, without interruption.

Tree planting soil volumes should be maximized by providing continuous planting trenches a minimum of 3'-6" deep and underdrainage should be provided. (Figure 6-3, Section B-B).

### Median Plantings

On streets with medians, a general guideline is to provide street trees in open planted areas on any median that is 5 feet or greater in width. On narrower medians, it is generally recommended to provide a paved surface and omit trees and other landscape plantings.

### Bioswales

When bioswales or other open storm water management features are incorporated into parkway strips or medians, trees and understory plants that can tolerate seasonal inundation should be specified.
6. DETAILS

6.1 STREET TREE PLANTING GUIDELINES & DETAILS

Section B-B

**NOTES:**

- **Infiltration** - Provide min. two(2) bubblers per tree. For shrub and ground cover areas provide water efficient subsurface drip irrigation.
- **Tree Staking** - Provide heavy-duty staking system, consisting of four(4) 3” dia. stakes per tree, stabilized with cross-bracing and a min. of four(4) cored rubber tree ties per tree.
- **Root Barriers** - Provide 24” deep panel style root barriers at all street trees.

**Ground Cover Planting**
- Mulch

**Conventional Planting Soil**
- 4” Perforated Underdrain Pipe in Drain Rock (Continuous)

**Tree Root Ball**
- Compacted Planting Soil

**Length Varies**
- (12 MIN.)
- (16 TYP.)

**Permeable Pavers**
6. DETAILS

6.1 STREET TREE PLANTING GUIDELINES & DETAILS

**Planting condition 2 - Street Trees in Tree Wells**

Street tree plantings may also be in tree wells, specifically in retail, commercial, and other high traffic areas. The understory of the wells can be treated in a variety of ways: either planted; paved with ornamental gravel or unit pavers.

The size of tree wells can vary, however, a minimum size of 4 feet by 4 feet is required. In order to optimize the health of the street trees, the use of larger, 5 feet by 5 feet tree wells is recommended.

As elsewhere, tree planting soil volumes should be maximized. In tree well planting situations, the recommended approach is to provide extended trenches of structural soil, a minimum of 5 feet wide by 5 feet long and 3’-6” deep, under the adjacent pavement areas on either side of the open tree well.

Understory Plantings: Understory plantings in tree wells should generally be limited to lower-growing species, no more than 3 feet in height.
6. DETAILS

6.1 STREET TREE PLANTING GUIDELINES & DETAILS

NOTES:
Irrigation - For trees, provide min. two (2) bubblers per tree. For shrub and ground cover areas provide water efficient subsurface drip irrigation.
Tree Staking - Provide heavy-duty staking system, consisting of four (4) 3" dia. stakes per tree, stabilized with cross-bracing and a min. of four (4) corded rubber tree ties per tree.
Root Barriers - Provide 24" deep panel style root barriers at all street trees.
### 6. DETAILS

#### 6.2 PLANT MATERIALS PALETTE

**Street Trees**

The following trees are adapted to tough urban conditions, and are tolerant of wind and fog, poor soils and bayfront/coastal conditions. Most are also recommended for San Francisco’s streets by the SFDPW and the Friends of the Urban Forest.

<table>
<thead>
<tr>
<th>SCIENTIFIC NAME</th>
<th>COMMON NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesculus x carnea</td>
<td>Ruby Red Horsechestnut</td>
</tr>
<tr>
<td>Arbutus x ‘Marina’</td>
<td>Marina Strawberry Tree**</td>
</tr>
<tr>
<td>Arbutus unedo</td>
<td>Strawberry Tree</td>
</tr>
<tr>
<td>Betula jacqemontii</td>
<td>Himalayan Birch</td>
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<td>Coolibah Gum</td>
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<tr>
<td>Eucalyptus niholi</td>
<td>Willow-Leaved Peppermint**</td>
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<td>Ginkgo biloba ‘Princeton Sentry’</td>
<td>Columnar Maidenhair Tree**</td>
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<td>Lyonothomus floribundus asplenifolius</td>
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<td>Magnolia grandiflora ‘Samuel Sommers’</td>
<td>Catalina Ironwood**</td>
</tr>
<tr>
<td>Magnolia grandiflora ‘Little Gem’</td>
<td>Southern Magnolia**</td>
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| ** = First tier street tree recommendation

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**COMMON NAME**

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<td>Allea Chinese Elm**</td>
<td>Allee Chinese Elm**</td>
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**SCIENTIFIC NAME**

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<td>Chinese Pistache**</td>
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<td>Allee Chinese Elm**</td>
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<td>Chinese Evergreen Elm**</td>
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</table>
6. DETAILS

6.2 PLANT MATERIALS PALETTE

Trees For Park Areas

The following trees are larger in scale, are coniferous evergreens, have unique form or foliage, are adapted to the project's site conditions and are suitable for use in park sites and other larger open space areas.

<table>
<thead>
<tr>
<th>SCIENTIFIC NAME</th>
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<tbody>
<tr>
<td>Aesculus x carne a</td>
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<td>Cupressus macrocarpa</td>
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<td>Eucalyptus citiodora</td>
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<tr>
<td>Washingtonia robusta</td>
<td>Mexican Fan Palm</td>
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</table>

DRAFT September 19, 2013
### Understory Plantings

The following plant palette represents a mix of locally-adapted, Mediterranean plants, succulents from various arid climates and native California plants noted for their interesting form, flower, and/or foliage. These plants are well-adapted to local San Francisco microclimates and most are also recommended for sidewalk landscaping by the SFDPW’s Urban Forestry division.

<table>
<thead>
<tr>
<th>SCIENTIFIC NAME</th>
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<th>SCIENTIFIC NAME</th>
<th>COMMON NAME</th>
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<td>Erigeron canadensis</td>
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<td>Eriogonum fasciculatum</td>
<td>California Buckwheat</td>
<td>Escallonia ‘Newport Dwarf’</td>
<td>California Eucalyptus</td>
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<td>California Poppy</td>
<td>Festuca glauca ‘Siskiyou Blue’</td>
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<td>Santa Barbara Daisy</td>
<td>Euphorbia characias wulfenii</td>
<td>Euphorbia var.</td>
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<td>California Fescue</td>
<td>Festuca glauca</td>
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<td>Lavandula stoechas ‘Otto Quast’</td>
<td>Lavandula x intermedia ‘Grosso’</td>
<td>Pacific Coast Hybrid Iris</td>
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<td>Liriope muscari var.</td>
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<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Pink Jasmine</td>
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<td>Mahonia repens</td>
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<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Yellow Jasmine</td>
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<td>Muhlenbergia capillaris</td>
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<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Orange Fleece</td>
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<td>Muhlenbergia capillaris</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Spanish Lavender</td>
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<td>Muhlenbergia capillaris</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>French Lavender</td>
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<td>Muhlenbergia capillaris</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Fat Bud French Lavender</td>
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<td>Newportia capillaris</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Sea Lavender</td>
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<td>Opuntia humifusa</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Chinese Fringe Flower</td>
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<td>Opuntia humifusa</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Creeping Oregon Grape</td>
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<td>Opuntia humifusa</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Morning Light Silver Grass</td>
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<td>Opuntia humifusa</td>
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<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Deergrass</td>
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<td>Opuntia humifusa</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Lavandula stoechas ‘Dwarf Yellow’</td>
<td>Ground Cover Myoporum</td>
</tr>
</tbody>
</table>
### Biofiltration / L.I.D. Understory Plantings

The following understory (shrub, ground cover & perennial) plantings are adapted to wetter circumstances and seasonal inundation conditions associated with biofiltration and storm water management areas. Most are also recommended for low impact design (L.I.D.) by the San Francisco Public Utility Commission’s (SFPUC’s) San Francisco Stormwater Design Guidelines.

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myrtus communis ‘Compacta’</td>
<td>Dwarf Myrtle</td>
</tr>
<tr>
<td>Nandina domestica ‘Fire Power’</td>
<td>Dwarf Heavenly Bamboo</td>
</tr>
<tr>
<td>Nandina domestica ‘Harbor Dwarf’</td>
<td>Purple Needlegrass</td>
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<tr>
<td>Nassella pulchra</td>
<td>Ornamental Catmint</td>
</tr>
<tr>
<td>Nepeta x faassenii</td>
<td>Little Ollie Dwarf Olive</td>
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<td>Olea europea ‘Monstra’</td>
<td>Mondo Grass</td>
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<tr>
<td>Ophiopogon japonicus</td>
<td>Trailing African Daisy</td>
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<tr>
<td>Osteospermum fruticosum</td>
<td>Dwarf Red Fountain Grass</td>
</tr>
<tr>
<td>Penstemon heterophyllus var.</td>
<td>Penstemon varieties</td>
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<tr>
<td>Phomium tenax hybrids</td>
<td>New Zealand Flax (dwarf varieties)</td>
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<tr>
<td>Pittosporum crassifolium</td>
<td>Karo</td>
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<tr>
<td>Pittosporum tobira ‘Variegata’</td>
<td>Variegated Tobira</td>
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<tr>
<td>Pittosporum tobira ‘Wheelers’</td>
<td>Wheelers Dwarf Tobira</td>
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<tr>
<td>Polystichum munitum</td>
<td>Western Sword Fern</td>
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<tr>
<td>Rhamnus californica ‘Seaview’</td>
<td>Dwarf Coffeeberry</td>
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<tr>
<td>Rosmarinus officinalis var.</td>
<td>Rosmary var.</td>
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<tr>
<td>Rubus pentalobus</td>
<td>Creeping Bramble</td>
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<td>Salvia clevelandii</td>
<td>Cleveland Sage</td>
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<td>Salvia gregii</td>
<td>Autumn Sage</td>
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<td>Salvia leucantha</td>
<td>Mexican Sage</td>
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<td>Salvia sonomensis</td>
<td>Creeping Sage</td>
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<td>Santolina chamaecyparissus</td>
<td>Lavender Cotton</td>
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<tr>
<td>Senecio cineraria</td>
<td>Dusty Miller</td>
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<tr>
<td>Senecio serpens</td>
<td>Blue Chalksticks</td>
</tr>
<tr>
<td>Seslaria autumnalis</td>
<td>Autumn Moor Grass</td>
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<td>Sollya heterophylla</td>
<td>Australian Bluebell Creeper</td>
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<tr>
<td>Stipa tenuissima</td>
<td>Mexican Feather Grass</td>
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<td>Symphoricarpos albus</td>
<td>Common Snowberry</td>
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<td>Tiquicha uvulifolia</td>
<td>Princess Flower</td>
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<td>Teucrium chamaedrys</td>
<td>Wall Germander</td>
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<tr>
<td>Teucrium frutescens ‘Compactum’</td>
<td>Bush Germander</td>
</tr>
<tr>
<td>Tulbaghia violacea ‘Silver Lace’</td>
<td>Variegated Society Garlic</td>
</tr>
</tbody>
</table>

** = First tier plant recommendation
6. DETAILS

6.3 STREETSCAPE ELEMENT DETAILS

SW Treatment Type 1

Treatment in sidewalks adjacent to parking should be estimated using 4 ft. by 16 ft. long treatment boxes on average.

Figure 6.4 - SW Treatment Type 1:
Flow through planter w/ hard edge, adjacent to street parking 4 ft. x 16 ft., nts.
6. DETAILS

6.3-streetscape element details

**SW Treatment Type 2**

Treatment in sidewalks where parking is not planned can have wider boxes. These are 6 ft. wide by 16 ft. long on average (i.e. 6 ft. of planted width).

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**Figure 6.5 - SW Treatment Type 2:**
Flow through planter w/ hard edge, with no street parking 6 ft. X 16 ft, nts.

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**NOTES:**

1. Install underground pipe and enclosed planters. Manual irrigation is not allowed or feasible.
6. DETAILS

6.3 STREETSCAPE ELEMENT DETAILS

SW Treatment Type 3

The treatment within the medians and linear parks. These treatment areas should be the lowest cost form of performative landscape (outside the treatment areas within the wedge park). These will be less expensive because they only require the barrier wall on the sides (not on the ends) of the treatment zones.

Figure 6.6 – SW Treatment Type 3: Concrete wall along roadway with natural edge bioretention, nts

NOTE:
1. INSTALL UNDERGROUND PIPE AND EXCAVATE PLANTING WITHIN PIPE TO ALLOW DIRECT SEEDING OF PLANTS.
Figure 6.7 – Kristar infiltrating flow-through planter, nts

Figure 6.8 – Infiltrating Flow-through planter option for treatment type 1 and 2, nts
Details for Potential Custom Furniture

1" CORTEN STEEL FABRICATED BENCH, GLASS BEAD BLOWN AND COATED WITH TWO LAYERS OF CARPOXANE 950 CLEARCOAT

3/8" HILTI HY-150 EPOXY BOLT, 3 1/2" EMBEDMENT
1/2" EPOXY BEARING PAD--CONTINUOUS
# 4 EPOXY COATED RE-BAR, CONTINUOUS
1/2" (D) x 5" (H) EPOXY COATED Dowel
1 1/2" REVEAL
4" (D) x 8" (L) x 3" (H) GRANITE PAVER JOINT FILLER
1 1/2" SAND SETTING BED
6" CONCRETE CURB
95% COMPACTED AGGREGATE BASE COURSE, # 002 APPROVED OR EQUAL
4000 PSI CAST IN PLACE CONCRETE FOOTING
EXISTING SUBSTRATE
1% FLUSH

Figure 6.9 - Custom bench details
6. DETAILS

6.3 STREETSCAPE ELEMENT DETAILS

Figure 6.10 - Figure 6.45 - Custom bike rack details

DRAFT SEPTEMBER 19, 2013
6. DETAILS

6.3 STREETSCAPE ELEMENT DETAILS

Figure 6.11 - Custom newsrack details

Details for Potential Custom Furniture

- 1/2" COR-TEN STEEL FABRICATED NEWS STAND, GLASS BEAD BLASTED AND COATED WITH TWO LAYERS OF CARBONATE 550 CLEARCOAT
- 1/2" EPDM BEARING PAD - CONTINUOUS
- 1 1/2" REVEAL
- 4" (D) x 8" (L) x 3" (H) GRANITE PAVER
- JOINT FILLER
- 1 1/2" SAND SETTLE RED
- 6" CONCRETE CURB
- 95% COMPACTED AGGREGATE BASE COURSE, # 902 APPROVED OR EQUAL
- 4000 PSI CAST IN PLACE CONCRETE FOOTING
- EXISTING SUBSTRATE
- SPRING HINGE
- COR-TEN DOOR WITH GLASS REVEAL
- 3/8" HILTI HY-150 EPOXY BOLT, 3 1/2" EMBEDMENT
- # 6 EPOXY COATED RE-BAR, CONTINUOUS
- 1/2" (D) x 5" (H) EPOXY COATED DOWEL

DRAFT SEPTEMBER 19, 2013
6. DETAILS

6.3 STREETSCAPE ELEMENT DETAILS

Figure 6.12 - Transvac pneumatic trash system custom enclosure details