



DATE May 13, 2013

PROJECT NAME Van Ness BRT

SUBJECT Technical Report: Tree Removal and Planting Opportunity Evaluation

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This memorandum summarizes the process and findings of the Tree Removal and Planting Opportunities Evaluation conducted by BMS Design Group for the Van Ness Bus Rapid Transit (BRT) Project. It is intended to summarize the methodology and findings of the study, and provide background technical data for use by the San Francisco County Transportation Authority (SFCTA) and other consultants in the preparation of the Van Ness BRT Environmental Impact Statement (EIS)/Environmental Impact Report (EIR).

#### **OBJECTIVE**

BMS Design Group was contracted by Parsons Corporation to inventory and assess potential impacts to existing trees in the Van Ness Avenue corridor in relation to the Van Ness Bus Rapid Transit (BRT) Project. Professional services were provided by BMS Design Group with assistance from HortScience, a consulting certified arborist.

The Van Ness BRT project produced four BRT configuration alternatives. All four alternatives include dedicated bus lanes along Van Ness Avenue extending from Mission Street to Lombard Street in San Francisco.

#### *Build Alternative 2*

Build Alternative 2 runs on the side of the street, providing a dedicated bus lane that replaces the existing right-hand travel lane adjacent to the existing curbside parking which will remain. Stations will be located on the sidewalk corners similar to the manner in which existing bus stops are located today.

#### *Build Alternative 3*

Build Alternative 3 provides two dedicated side-by-side bus lanes located in the center of the roadway in between two outside medians: one 4-foot and one 9-foot. BRT stations would be located on the 9-foot median, allowing right-side boarding.

#### *Build Alternative 4*

Build Alternative 4 is also located in the center of the roadway, with a single center 14-foot-wide median. Station platforms would be located on the center median, requiring left-side passenger boarding, as well as left side doors on vehicles.



### *Locally-Preferred Alternative (LPA) & LPA with Design Variant*

The LPA is a combination and refinement of Build Alternatives 3 and 4. BRT vehicles would run alongside a single median for most of the corridor, transitioning to the center of the roadway at station locations to allow for right-side loading at station platforms. The design variant of the LPA includes an additional northbound station at Vallejo Street.

## **METHODOLOGY**

For each alternative, the Tree Removal and Planting Opportunities Evaluation included several components:

- Existing tree inventory and assessment
- Tree removal analysis
- Tree replacement estimates
- Potential tree species lists for future planting.

### **Existing Tree Inventory and Assessment**

An inventory of existing trees in the project area was conducted in two parts. In July 2009, BMS Design Group conducted a simple, non-horticultural inventory of the location, species and quantity of median and sidewalk trees in the project area, using aerial photography and on-site evaluation. This survey identified a total of 101 existing trees in the Van Ness Avenue median and 314 trees in the sidewalk within the project area. Further determination of tree health and suitability for preservation was not undertaken at that time. The survey was used to prepare a preliminary assessment of potential tree removal impacts and tree replacement opportunities for each of three alternatives - Alternative 2, Alternative 3, and Alternative 4 – in 2009. As the only completed survey of all sidewalk trees in the Van Ness corridor, the quantity of sidewalk trees from this 2009 survey was also used in a subsequent tree removal analysis conducted in 2012.

In July 2012, a more extensive existing tree inventory and assessment was conducted by a certified arborist from the firm HortScience in order to assess not only tree location, species and quantity, but also age, health and suitability for preservation. This assessment determined a more precise count of 102 median trees in the project area. These median trees, as well as 38 sidewalk trees that would be potentially-impacted in Alternative 2 were evaluated. The following data was recorded during this inventory and assessment:

- a. Verify species
- b. Measure trunk diameter at 54” above grade
- c. Attach a numerically coded metal tag to the trunk
- d. Visually assess current health and structural condition
- e. Record observations on tree health and structure
- f. Assess tree suitability for preservation
- g. Assess current conflicts with hardscape such as displaced curb and/or pavement
- h. Assess current crown structure with respect to the need for the tree canopy to be above 18’ in order to clear the Overhead Contact System (OCS) of the future BRT system.



- i. Assess the potential for relocation
- j. Document the tree location on a map.

### **Tree Removal Analysis**

Based on the data collected during the Inventory and Assessment, a Tree Removal Analysis was conducted for each of the four alternatives - Alternative 2, Alternative 3, Alternative 4, and the LPA. This included:

- a. Preparation of maps which overlaid the existing tree locations on each of the four BRT alternative configurations to determine impacts to trees which are likely to result from direct construction of the BRT bus lanes and stations in the Van Ness BRT Project.
- b. Analysis of trees impacted by reduced median widths. Not all trees will survive a reduction in median width and the resulting reduction in planting area.
- c. Determination of impacts which are likely to result from conflicts between the canopy of the existing trees and the OCS. The OCS is the electrical system that will run approximately 18' above the ground to power the BRT vehicles. All tree limbs must maintain a 5' setback clearance on all sides of the power lines. Trees were evaluated for their ability to be pruned in such a way as to avoid the OCS lines. Cross-sections were drawn to illustrate and verify this situation.

Trees were categorized by location (median, east sidewalk, and west sidewalk), and suitability for preservation based on the following three factors:

- Size and age. This was estimated based on canopy height. Mature trees were defined as those greater than 13' in height, while young trees were defined as those which are less than 13' in height.
- Tree condition and health. For this assessment a rating scale of 0-5 was established. See table below for a description of the rating scale. Trees in good condition received a condition rating level of 4 or 5, while trees in poor condition were rated at levels 1, 2, or 3.

An analysis matrix was prepared that grouped trees into the following categories:

- a. Location
  - i. median
  - ii. east sidewalk
  - iii. west sidewalk
- b. Tree Preservation Potential
  - i. trees to be removed
  - ii. trees to be preserved
- c. Size/Age and Health
  - i. Mature trees, condition 4 or 5
  - ii. Young trees, condition 4 or 5
  - iii. Mature or young trees, condition 1, 2, or 3.



TREE CONDITION RATING SCALE	
RATING	TREE CONDITION/HEALTH
0	Tree is dead.
1	Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
2	Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
3	Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
4	Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
5	A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.

### Tree Replacement Estimates

Each alternative was evaluated in terms of tree replacement opportunities. In areas where construction of the BRT system will require removal of existing trees, new trees will be planted. All alternatives propose new trees in both the median and the sidewalks. New sidewalk trees will be planted where existing bus stops are removed, or in the case of Alternative 2, incorporated into the design of future BRT station platforms.

Estimates of tree replacement quantities were based on the following criteria:

Median trees:

- a. 20'-0" on-center along the median where the median is greater than 9'-0"
- b. 35'-0" setback from intersections per Caltrans requirements.
- c. 15'-0" setback from existing trees

Sidewalk trees:

- a. For Alternatives 3, 4, and the LPA, existing bus stops will be removed and replaced with street trees at 30'-0" on-center.
- b. For Alternative 2, at future sidewalk BRT station platforms, four (4) new trees will be planted at each BRT station platform.

### Potential Tree Species List

BMS Design Group, with assistance from HortScience, also prepared a list of potential tree species suitable for future planting in the median after construction of the BRT. The list includes tree species for three of the four original alternatives (Alternative 2 does not impact the existing median trees). Since all trees are required to clear the OCS lines, only narrow/columnar and low trees were considered. Tree species were chosen based on the following criteria:

- a. Tree form (narrow/columnar or low-growing trees due to the OCS)
- b. Ability to survive in a median of specified width, which varies by alternative:

- i. Alternative 3: 9'-0" median
  - ii. Alternative 4: 14'-0" median
  - iii. Locally-Preferred Alternative (LPA): 11'-0" median
- c. Tolerance to urban conditions (e.g.: wind, reflected heat)
- d. Low water needs
- e. Root growth pattern (e.g., trees that do not heave pavement)
- f. Aesthetics (e.g., trees that are well-formed and contribute to the character of an urban boulevard).



## **FINDINGS**

### **Tree Removal Analysis**

The findings of the tree removal and preservation analysis are summarized in the tables that follow.

#### *Key Findings*

Of the 416 total trees in the Van Ness corridor, Build Alternative 3 removes the greatest number of trees (102 trees), while Build Alternative 2 removes the fewest (58 trees). Build Alternative 4 removes 64 trees, while the LPA removes 90 trees. The LPA with Design Variant is no different than the LPA in terms of tree preservation.

The primary source of tree loss is the elimination of median planting areas (and associated median trees) due to construction of the BRT bus lanes and stations.

A reduction in median width causes additional tree loss, as established trees generally cannot survive the reduction in planting area.

OCS clearance did not require removal of any trees. It is estimated that all existing trees to remain are either tall enough to clear the OCS, or can be successfully pruned.

Tree preservation will require on-site evaluation at the time of construction. Trees listed for removal may be found to be preservable, and conversely, trees listed for preservation may require removal.

In two situations, trees were identified for removal not due to the BRT project, but rather due to extremely poor condition. This was the case for Trees #112 and #137.

### **Tree Replacement Estimates**

The findings of the tree replacement estimates are summarized by alternative in the table titled Tree Replacement Estimates by Alternative, according to the number of existing trees to remain and the number of new trees that can be planted.

#### *Key Findings*

In all alternatives, the replacement number (existing trees to remain plus new replacement trees) exceeds the number of existing trees. Build Alternative 2 results in the highest number of total post construction trees (529 trees), followed by Build Alternative 3 with 525 trees, Build Alternative 4 with 513 trees, and the LPA with 469 trees.

### **Potential Tree Species List**

The tree species list includes several species of narrow/columnar and low trees that are considered appropriate for median planting in each of the alternatives. This is not a complete list of potentially



appropriate tree species. However, it establishes a preliminary basis that can be used during the future detailed design phases of the project.

## TREE REMOVAL BY ALTERNATIVE

### Van Ness Corridor BRT Project

BMS Design Group with Hortscience, November 2, 2012

Updated by SFCTA, April 23, 2013

Updated by BMS Design Group, April 29, 2013

#### EXISTING TREES

	Mature Trees; Condition 4 or 5	Young Trees; Condition 4 or 5	Mature or YoungTrees; Condition 1-3	TOTAL TREES
Median	28	50	24	102
West Sidewalk	N/A	N/A	N/A	163
East Sidewalk	N/A	N/A	N/A	151
				416

#### LPA - TREES TO BE REMOVED (Maximums)

	Mature Trees; Condition 4 or 5	Young Trees; Condition 4 or 5	Mature or YoungTrees; Condition 1-3	TOTAL TREES TO BE REMOVED
Median	23	44	23	90
West Sidewalk	N/A	N/A	N/A	0
East Sidewalk	N/A	N/A	N/A	0
				90

#### LPA - TREES TO REMAIN (Minimums)

	Mature Trees; Condition 4 or 5	Young Trees; Condition 4 or 5	Mature or YoungTrees; Condition 1-3	TOTAL TREES TO REMAIN
Median	5	6	1	12
West Sidewalk	N/A	N/A	N/A	163
East Sidewalk	N/A	N/A	N/A	151
				326

#### ALTERNATIVE 2 - TREES TO BE REMOVED

	Mature Trees; Condition 4 or 5	Young Trees; Condition 4 or 5	Mature or YoungTrees; Condition 1-3	TOTAL TREES TO BE REMOVED
Median	2	15	3	20
West Sidewalk	0	12	8	20
East Sidewalk	4	3	11	18
				58

#### ALTERNATIVE 2 - TREES TO REMAIN

	Mature Trees; Condition 4 or 5	Young Trees; Condition 4 or 5	Mature or YoungTrees; Condition 1-3	TOTAL TREES TO REMAIN
Median	26	35	21	82
West Sidewalk	N/A	N/A	N/A	143
East Sidewalk	N/A	N/A	N/A	133
				358

#### ALTERNATIVE 3 - TREES TO BE REMOVED

	Mature Trees; Condition 4 or 5	Young Trees; Condition 4 or 5	Mature or YoungTrees; Condition 1-3	TOTAL TREES TO BE REMOVED
Median	28	50	24	102
West Sidewalk	N/A	N/A	N/A	0
East Sidewalk	N/A	N/A	N/A	0
				102

#### ALTERNATIVE 3 - TREES TO REMAIN

	Mature Trees; Condition 4 or 5	Young Trees; Condition 4 or 5	Mature or YoungTrees; Condition 1-3	TOTAL TREES TO REMAIN
Median	0	0	0	0
West Sidewalk	N/A	N/A	N/A	163
East Sidewalk	N/A	N/A	N/A	151
				314

#### ALTERNATIVE 4 - TREES TO BE REMOVED

	Mature Trees; Condition 4 or 5	Young Trees; Condition 4 or 5	Mature or YoungTrees; Condition 1-3	TOTAL TREES TO BE REMOVED
Median	11	40	13	64
West Sidewalk	N/A	N/A	N/A	0
East Sidewalk	N/A	N/A	N/A	0
				64

#### ALTERNATIVE 4 - TREES TO REMAIN

	Mature Trees; Condition 4 or 5	Young Trees; Condition 4 or 5	Mature or YoungTrees; Condition 1-3	TOTAL TREES TO REMAIN
Median	17	10	11	38
West Sidewalk	N/A	N/A	N/A	163
East Sidewalk	N/A	N/A	N/A	151
				352

#### NOTES

1: Sidewalk tree counts are from BMS Design Group tree inventory in July, 2009. All Median tree counts are from Hortscience tree survey from July, 2012.

2: N/A (Not/Available): Detailed information about sidewalk trees is only available for the 38 sidewalk trees to be removed in Alternative 2.

3: Trees to remain are those that are not affected by direct construction and are in suitable condition for preservation.

## TREE REPLACEMENT ESTIMATES BY ALTERNATIVE

### Van Ness Corridor BRT Project

BMS Design Group with Hortscience, November 2, 2012

Updated by SFCTA, April 23, 2013

#### EXISTING TREES

Median Trees	102 trees
Sidewalk Trees	314 trees
<b>Total</b>	<b>416 trees</b>

#### LPA

<b>Existing Trees to Remain</b>	
Median Trees	12 trees (Up to 90 removed to accommodate BRT)
Sidewalk Trees	314 trees
<b>Subtotal</b>	<b>326 trees</b>
<b>New Trees</b>	
Median Trees	95 trees (Low or narrow trees at 20' o.c. alongside existing trees to remain)
Sidewalk Trees	48 trees (Existing bus stops replaced with new street trees at 30' o.c.)
<b>Subtotal</b>	<b>143 trees</b>
<b>TOTAL TREES</b>	<b>469 trees</b>

#### ALTERNATIVE 2

<b>Existing Trees to Remain</b>	
Median Trees	82 trees (20 removed due to new median construction)
Sidewalk Trees	276 trees (38 removed for station platforms)
<b>Subtotal</b>	<b>358 trees</b>
<b>New Trees</b>	
Median Trees	103 trees
Sidewalk Trees	68 trees (4 trees per new station)
<b>Subtotal</b>	<b>171 trees</b>
<b>TOTAL TREES</b>	<b>529 trees</b>

#### ALTERNATIVE 3

<b>Existing Trees to Remain</b>	
Median Trees	0 trees (102 removed to accommodate BRT)
Sidewalk Trees	314 trees
<b>Subtotal</b>	<b>314 trees</b>
<b>New Trees</b>	
Median Trees	163 trees (Low or narrow trees at 20' o.c.)
Sidewalk Trees	48 trees (Existing bus stops replaced with new street trees at 30' o.c.)
<b>Subtotal</b>	<b>211 trees</b>
<b>TOTAL TREES</b>	<b>525 trees</b>

#### ALTERNATIVE 4

<b>Existing Trees to Remain</b>	
Median Trees	38 trees (64 removed to accommodate BRT)
Sidewalk Trees	314 trees
<b>Subtotal</b>	<b>352 trees</b>
<b>New Trees</b>	
Median Trees	113 trees (Low or narrow trees at 20' o.c. alongside existing trees to remain)
Sidewalk Trees	48 trees (Existing bus stops replaced with new street trees at 30' o.c.)
<b>Subtotal</b>	<b>161 trees</b>
<b>TOTAL TREES</b>	<b>513 trees</b>

#### NOTES

1. Tree replacement estimates determined using Hortscience's Tree Survey data (July, 2012).
2. New median trees for all alternatives were calculated at 20' on-center where the median is greater than 9'.
3. New median tree calculations assume a 35' setback from each intersection, and a 15' setback on either side of existing trees to remain.

## POTENTIAL TREE SPECIES LIST

### Van Ness Corridor BRT Project

BMS Design Group with Hortscience, October 29, 2012

Updated by SFCTA, April 5, 2013

#### LOCALLY-PREFERRED ALTERNATIVE (LPA): 9 to 11-foot wide median

(Note: Not all species will be appropriate at narrower sections of median)

NARROW/COLUMNAR TREES		TREE HEIGHT	LOW TREES		TREE HEIGHT
Acer campestre 'Queen Elizabeth'	Queen Elizabeth Hedge	30'	Pittosporum tobira	Tobira	15'
Acer x freemanii 'Armstrong'	Armstrong Maple	40'	Cercis canadensis	Eastern Redbud	25'
Carpinus betulus 'fastigiata'	European Hornbeam	40'	Cercis occidentalis	Western Redbud	15'
Carpinus betulus 'Frans Fontaine'	Frans Fontaine Hornbea	30-35'	Feijoa sellowiana	Pineapple Guava	20'
Cupressus sempervirens 'stricta'	Italian Cypress	60'	Stewartia pseudocamillia	Japanese Stewartia	20'
Gingko biloba 'Princeton Sentry'	Princeton Sentry Gingkc	40-50'	Tibouchina urvilleana	Princess Flower	15'
Juniperus scopulorum 'skyrocket'	Skyrocket Juniper	15-20'	Arbutus unedo	Strawberry Tree	25'
Juniperus virginiana 'hillspire'	Hillspire Juniper	10-15'			
Koelreuteria paniculatum 'fastigiata'	Goldenrain Tree	25'			
Populus alba 'pyramidalis'	White Poplar	50-60'			
Prunus sargentii 'columnaris'	Sargent Cherry	40'			
Pyrus calleryana 'whitehouse'	Callery Pear	40'			
Quercus robur 'fastigiata'	English Oak	50'			
Syzygium paniculatum	Eugenia	30'			
Palm Trees	various species				

#### ALTERNATIVE 3: 9-foot wide median

NARROW/COLUMNAR TREES		TREE HEIGHT	LOW TREES		TREE HEIGHT
Carpinus betulus 'fastigiata'	European Hornbeam	40'	Pittosporum tobira	Tobira	15'
Carpinus betulus 'Frans Fontaine'	Frans Fontaine Hornbea	30-35'	Cercis canadensis	Eastern Redbud	25'
Cupressus sempervirens 'stricta'	Italian Cypress	60'	Cercis occidentalis	Western Redbud	15'
Juniperus scopulorum 'skyrocket'	Skyrocket Juniper	15-20'	Feijoa sellowiana	Pineapple Guava	20'
Juniperus virginiana 'hillspire'	Hillspire Juniper	10-15'	Stewartia pseudocamillia	Japanese Stewartia	20'
Koelreuteria paniculatum 'fastigiata'	Goldenrain Tree	25'	Tibouchina urvilleana	Princess Flower	15'
Palm Trees	various species		Arbutus unedo	Strawberry Tree	25'

#### ALTERNATIVE 4: 14-foot wide median

NARROW/COLUMNAR TREES		TREE HEIGHT	LOW TREES		TREE HEIGHT
Acer campestre 'Queen Elizabeth'	Queen Elizabeth Hedge	30'	Pittosporum tobira	Tobira	15'
Acer x freemanii 'Armstrong'	Armstrong Maple	40'	Cercis canadensis	Eastern Redbud	25'
Carpinus betulus 'fastigiata'	European Hornbeam	40'	Cercis occidentalis	Western Redbud	15'
Carpinus betulus 'Frans Fontaine'	Frans Fontaine Hornbea	30-35'	Feijoa sellowiana	Pineapple Guava	20'
Cupressus sempervirens 'stricta'	Italian Cypress	60'	Stewartia pseudocamillia	Japanese Stewartia	20'
Gingko biloba 'Princeton Sentry'	Princeton Sentry Gingkc	40-50'	Tibouchina urvilleana	Princess Flower	15'
Juniperus scopulorum 'skyrocket'	Skyrocket Juniper	15-20'	Arbutus unedo	Strawberry Tree	25'
Juniperus virginiana 'hillspire'	Hillspire Juniper	10-15'			
Koelreuteria paniculatum 'fastigiata'	Goldenrain Tree	25'			
Populus alba 'pyramidalis'	White Poplar	50-60'			
Prunus sargentii 'columnaris'	Sargent Cherry	40'			
Pyrus calleryana 'whitehouse'	Callery Pear	40'			
Quercus robur 'fastigiata'	English Oak	50'			
Syzygium paniculatum	Eugenia	30'			
Palm Trees	various species				

## APPENDIX

1. Existing Tree Inventory
2. Inventory of Trees – Locally-Preferred Alternative (LPA) – Median Trees
3. Inventory of Trees - Alternative 2 – Sidewalk Trees
4. Inventory of Trees – Alternative 2 – Median Trees
5. Inventory of Trees – Alternative 4 – Median Trees
6. Tree Replacement Estimates by Block – LPA
7. Tree Replacement Estimates by Block – Alternative 2
8. Tree Replacement Estimates by Block – Alternative 3
9. Tree Replacement Estimates by Block – Alternative 4
10. Sections – Locally-Preferred Alternative (LPA)
11. Sections – Alternative 2
12. Sections – Alternative 3
13. Sections – Alternative 4

# Tree Assessment

Van Ness Avenue Bus Rapid Transit Study  
 BMS Design  
 San Francisco CA  
 July 2012



## EXISTING SURVEY

July, 2012

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL		
										Tree	Site	
1	Market	E.	Brisbane box	2	Poor	Small thin crown; leaf necrosis.	Cut-out	<13'	No	Poor tree	Problematic	
2	Hayes	median	Red-flowering gum	19	5	Good	Good form & structure.	Median, wide	>23'	No	Too large	Workable
3	Hayes	median	Red-flowering gum	27	4	Moderate	Good form & structure; trunk wounds on SE.	Median, wide	>23'	No	Too large	Workable
4	Grove	median	Cork oak	10	3	Poor	<b>No tag</b> ; surrounded by fence; slight crook @ 7'; sooty mold; bleeding along trunk.	Median, narrow	<13'	No	Poor tree	Problematic
5	Grove	median	Red-flowering gum	26	4	Moderate	<b>No tag</b> ; surrounded by fence; bottle butt; small crown for diameter.	Median, narrow	>23'	No	Too large	Problematic
6	Grove	median	Red-flowering gum	19	3	Moderate	<b>No tag</b> ; surrounded by fence; small crown; large trunk wound NW.	Median, narrow	>23'	No	Too large	Problematic
7	Grove	median	Cork oak	8	4	Moderate	<b>No tag</b> ; surrounded by fence; codominant trunks @ 6'; sooty mold.	Median, narrow	<13'	No	Good tree	Problematic
8	Grove	median	Red-flowering gum	23	4	Moderate	<b>No tag</b> ; surrounded by fence; upper canopy seems thin.	Median, narrow	13' to 23'	No	Too large	Problematic
9	Grove	median	Cork oak	8	5	Good	<b>No tag</b> ; surrounded by fence; short, spreading crown.	Median, narrow	<13'	No	Good tree	Problematic
10	McAllister	median	Brisbane box	5	5	Good	Good young tree; upright form	Median, cut-out	<13'	No	Good tree	Problematic
11	McAllister	median	Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic
12	McAllister	median	Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic
13	McAllister	median	Silver dollar gum	36	4	Moderate	Codominant trunks @ 15'; twig dieback; lateral SE.	Median, wide	>23'	No	Too large	Workable
14	McAllister	median	Silver dollar gum	23	3	Poor	Codominant trunks @ 12'; rib & reaction wood @ attachment; thinning crown.	Median, wide	>23'	No	Poor tree	Workable
15	McAllister	median	Silver dollar gum	24	4	Moderate	Multiple attachments @ 15'; upright form; trunk wound on N.	Median, wide	>23'	No	Too large	Workable
16	Golden Gate	median	Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic
17	Golden Gate	median	Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic

## EXISTING SURVEY

July, 2012

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL	
										Tree	Site
18	Golden Gate	median Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic
19	Golden Gate	median Brisbane box	6	4	Moderate	Good young tree; leans W.; round form.	Median, cut-out	<13'	No	Good tree	Problematic
20	Golden Gate	median Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic
21	Golden Gate	median Brisbane box	4	4	Moderate	Good young tree; upright form; broken branch on N.	Median, cut-out	<13'	No	Good tree	Problematic
22	Turk	median Red-flowering gum	24	4	Moderate	Corrected lean E.; displacing hardscape on W. to 1".	Median, narrow	>23'	No	Too large	Problematic
23	Turk	median Red-flowering gum	20	4	Good	Upright form; trunk wound NE.	Median, narrow	>23'	No	Too large	Problematic
24	Turk	median Red-flowering gum	24	3	Poor	Heavy lean S.; small crown.	Median, narrow	>23'	No	Poor tree	Problematic
25	Turk	median Red-flowering gum	28	2	Poor	Declining; very thin crown.	Median, narrow	>23'	No	Poor tree	Problematic
26	Turk	W. London plane	8	4	Moderate	Twig dieback in upper crown; crossing branches.	Cut-out	<13'	No	Good tree	Problematic
27	Turk	W. London plane	7	4	Moderate	Twig dieback; already pruned E.	Cut-out	<13'	No	Good tree	Problematic
28	Turk	W. London plane	5	2	Poor	Small crown; extensive trunk wounds N.	Cut-out	<13'	No	Poor tree	Problematic
29	Turk	W. London plane	7	4	Good	Upright form; fair structure.	Cut-out	<13'	No	Good tree	Problematic
30	Eddy	E. London plane	6	3	Moderate	Asymmetric crown; slight lean E.	Cut-out	<13'	No	Okay tree	Problematic
31	Eddy	E. London plane	6	4	Moderate	Codominant trunks @ 6'; twig dieback.	Cut-out	<13'	No	Good tree	Problematic
32	Eddy	E. London plane	6	4	Moderate	Codominant trunks @ 10'; twig dieback; branch wound.	Cut-out	<13'	No	Good tree	Problematic
33	Eddy	E. London plane	8	4	Moderate	Upright form; twig dieback.	Cut-out	<13'	No	Good tree	Problematic
34	Eddy	median Red river gum	10	3	Poor	Crown bowed SE. @ 15'; twig dieback; lerp psyllid.	Median, cut-out	13' to 23'	No	Poor tree	Problematic
35	Eddy	median Red river gum	16	4	Moderate	Codominant trunks @ 15'; upright form; lerp psyllid.	Median, cut-out	>23'	No	Too large	Problematic
36	Eddy	median Red river gum	14	4	Moderate	Codominant trunks @ 12'; slight lean E.; lerp psyllid.	Median, cut-out	>23'	No	Too large	Problematic
37	Eddy	median Red river gum	13	3	Poor	Upright form; heavy to W.; trunk wounds; lerp psyllid.	Median, cut-out	>23'	No	Poor tree	Problematic
38	Eddy	median Red river gum	15	4	Moderate	Upright form; twig dieback; lerp psyllid.	Median, cut-out	>23'	No	Too large	Problematic
39	Ellis	median Silver dollar gum	24	4	Moderate	Codominant trunks @ 15'; upright form.	Median, wide	>23'	No	Too large	Workable
40	Ellis	median Silver dollar gum	22	4	Moderate	Codominant trunks @ 20'; lateral N. @ 16'.	Median, wide	>23'	No	Too large	Workable
41	Ellis	median Silver dollar gum	25	4	Moderate	Multiple attachments @ 18'; lateral to E. @ 12'.	Median, wide	>23'	No	Too large	Workable
42	Ellis	median Red-flowering gum	25	3	Moderate	Lost upper crown; upright stem SE. remains.	Median, wide	>23'	No	Too large	Workable

## EXISTING SURVEY

July, 2012

TREE No.	LOCATION		SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL	
											Tree	Site
43	Ellis	W.	London plane	5	5	Good	Upright form; good young tree	Cut-out	<13'	No	Good tree	Problematic
44	Ellis	W.	London plane	4	5	Good	Upright form; good young tree	Cut-out	<13'	No	Good tree	Problematic
45	O'Farrell	median	Brisbane box	6	3	Poor	Good young tree; lost upper crown; slight lean W.	Median, cut-out	<13'	No	Poor tree	Problematic
46	O'Farrell	median	Brisbane box	5	4	Moderate	Good young tree; slight lean W.	Median, cut-out	<13'	No	Good tree	Problematic
47	O'Farrell	median	Brisbane box	4	5	Good	Good young tree.	Median, cut-out	<13'	No	Good tree	Problematic
48	O'Farrell	median	Brisbane box	6	4	Moderate	Good young tree; leans N.	Median, cut-out	<13'	No	Good tree	Problematic
49	O'Farrell	median	Brisbane box	2	4	Moderate	Good young tree; twig dieback.	Median, cut-out	<13'	No	Good tree	Problematic
50	O'Farrell	median	Brisbane box	1	4	Moderate	Good young tree; twig dieback; small crown.	Median, cut-out	<13'	No	Good tree	Problematic
51	O'Farrell	E.	Fig	3	2	Poor	<b>No tag</b> ; in moveable pot; dieback.	Pot	<13'	No	Poor tree	Pot
52	O'Farrell	E.	Fig	3	2	Poor	<b>No tag</b> ; in moveable pot; dieback.	Pot	<13'	No	Poor tree	Pot
53	Geary	median	Cork oak	9	4	Moderate	Trunk sweeps N.; spreading crown; sooty mold.	Median, wide	<13'	Yes	Good tree	Workable
54	Geary	median	Cork oak	11	3	Poor	Small crown; fair structure; sooty mold.	Median, wide	<13'	No	Poor tree	Workable
55	Post	median	Cork oak	6	3	Poor	Small crown; leans W.; sooty mold.	Median, wide	<13'	No	Poor tree	Workable
56	Post	median	Cork oak	12	5	Good	Multiple attachments @ 10'; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable
57	Post	median	Cork oak	13	4	Good	Relatively upright; sooty mold.	Median, wide		Yes?	Good tree	Workable
58	Post	W.	London plane	5	3	Poor	Upright form; topped @ 12'.	Teeny circle	<13'	No	Poor tree	Problematic
59	Post	W.	London plane	6	3	Poor	Upright form; topped @ 12'.	Teeny circle	<13'	No	Poor tree	Problematic
60	Post	W.	London plane	6	3	Poor	Upright form; topped @ 12'; cut out flooded; trunk wounded by tree guard.	Teeny circle	<13'	No	Poor tree	Problematic
61	Post	W.	London plane	6	3	Poor	Upright form; topped @ 12'; trunk wounded by tree guard.	Teeny circle	<13'	No	Poor tree	Problematic
62	Sutter	median	Red-flowering gum	25	3	Moderate	Lost upper crown; branch failure; leans W.	Median, wide	>23'	No	Too large	Workable
63	Sutter	median	Cork oak	8	3	Poor	Small crown; bleeding along trunk; sooty mold.	Median, wide	<13'	No	Poor tree	Workable
64	Sutter	median	Red-flowering gum	13	4	Good	Upright form; lateral E. @ 15'.	Median, wide	13' to 23'	Yes?	Good tree	Workable
65	Sutter	median	Red-flowering gum	18	4	Moderate	Spreading form; laterals E. @ 12' & 15'.	Median, wide	>23'	No	Too large	Workable

## EXISTING SURVEY

July, 2012

TREE No.	LOCATION		SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL	
											Tree	Site
66	Sutter	E.	London plane	6	3	Moderate	Codominant trunks @ 8'; slight lean W.; fair structure.	Teeny circle	<13'	No	Okay tree	Problematic
67	Sutter	E.	London plane	12	5	Good	Good form & structure; displacing hardscape to 2".	Teeny circle	13' to 23'	No	Good tree	Problematic
68	Bush	median	Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic
69	Bush	median	Brisbane box	6	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic
70	Bush	median	Brisbane box	7	4	Moderate	Upright form; trunk wounds from branch tear outs.	Median, cut-out	<13'	No	Good tree	Problematic
71	Bush	median	Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic
72	Bush	median	Brisbane box	6	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic
73	Bush	median	Brisbane box	3	5	Good	Good young tree; slight lean S.	Median, cut-out	<13'	No	Good tree	Problematic
74	Pine	median	Cork oak	10	4	Moderate	Codominant trunks @ 5'; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable
75	Pine	median	Red-flowering gum	27	4	Moderate	Codominant trunks @ 7'; upright with small lateral W. @ 10'; trunk wound S.	Median, wide	>23'	No	Too large	Workable
76	Pine	median	Cork oak	10	3	Poor	Codominant trunks @ 10'; twig dieback; sooty mold.	Median, wide	<13'	No	Poor tree	Workable
77	Pine	median	Cork oak	10	5	Good	Good young tree; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable
78	California	W.	London plane	9	4	Moderate	Multiple attachments @ 12'; crown bowed E.	Cut-out	<13'	No	Good tree	Problematic
79	California	W.	London plane	8	4	Moderate	Good young tree; twig dieback.	Cut-out	<13'	No	Good tree	Problematic
80	Sacramento	E.	London plane	8	3	Moderate	Slight lean NW; base growing against tree grate; twig dieback.	Cut-out	<13'	No	Okay tree	Problematic
81	Sacramento	E.	London plane	4	3	Poor	Small crown; twig dieback.	Cut-out	<13'	No	Poor tree	Problematic
82	Sacramento	E.	London plane	7	3	Poor	Leans NW; base growing against tree grate; one-sided to N.	Cut-out	<13'	No	Poor tree	Problematic
83	Sacramento	E.	London plane	7	3	Moderate	Leans NW; base growing against tree grate; one-sided to N.	Cut-out	<13'	No	Okay tree	Problematic
84	Sacramento	median	Silver dollar gum	22	3	Poor	One-sided S.; small lateral N. @ 6'.	Median, wide	>23'	No	Poor tree	Workable
85	Sacramento	median	Manna gum	23	4	Moderate	Upright form; good structure; large trunk wound W.	Median, wide	>23'	No	Too large	Workable
86	Sacramento	median	Red-flowering gum	16	4	Moderate	Upright form; high, small crown.	Median, wide	>23'	No	Too large	Workable

## EXISTING SURVEY

July, 2012

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL	
										Tree	Site
87	Sacramento	median Red-flowering gum	28	3	Moderate	Multiple attachments @ 7'; small, spreading crown; large trunk wounds.	Median, wide	>23'	No	Too large	Workable
88	Sacramento	median Manna gum	33	4	Moderate	Multiple attachments @ 15'; spreading form; one-sided to S.	Median, wide	>23'	No	Too large	Workable
89	Sacramento	median Manna gum	30	4	Moderate	Upright; one-sided to N.	Median, wide	>23'	No	Too large	Workable
90	Clay	median Silver dollar gum	24	4	Moderate	Multiple attachments @ 20'; lateral to S. @ 18'.	Median, wide	>23'	No	Too large	Workable
91	Clay	median Silver dollar gum	19	4	Moderate	Codominant trunks @ 18'; high crown.	Median, wide	>23'	No	Too large	Workable
92	Washington	median Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic
93	Washington	median Brisbane box	6	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic
94	Washington	median Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic
95	Washington	median Brisbane box	6	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic
96	Washington	median Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic
97	Washington	median Brisbane box	2	5	Good	New planting; upright form.	Cut-out	<13'	No	Good tree	Problematic
98	Washington	E. Fig	18	4	Moderate	Multiple attachments @ 6'; candelabra form	Cut-out	>23'	No	Too large	Problematic
99	Washington	E. Fig	16	4	Moderate	Multiple attachments @ 6'; candelabra form	Cut-out	>23'	No	Too large	Problematic
100	Washington	E. Fig	16	4	Moderate	Multiple attachments @ 6'; candelabra form; branch wounds on W.	Cut-out	>23'	No	Too large	Problematic
101	Washington	E. Fig	16	3	Poor	Multiple attachments @ 8'; trunk wound W. where stem was ripped out.	Cut-out	>23'	No	Poor tree	Problematic
102	Jackson	W. London plane	8	4	Moderate	Upright form; crook @ 7'; twig dieback.	Cut-out	<13'	No	Good tree	Problematic
103	Jackson	W. London plane	9	4	Moderate	Upright form; twig dieback.	Cut-out	<13'	No	Good tree	Problematic
104	Jackson	W. London plane	11	4	Moderate	Upright form; twig dieback.	Cut-out	<13'	No	Good tree	Problematic
105	Jackson	W. London plane	8	4	Good	High crown; slight lean W.	Cut-out	<13'	No	Good tree	Problematic
106	Jackson	median Cork oak	9	5	Good	Rosa Parks tree. Good form & structure; small leaves; sooty mold.	Median, wide	<13'	Yes	Good tree	Workable
107	Jackson	median Silver dollar gum	20	4	Moderate	Multiple attachments @ 10'; good form & structure.	Median, wide	>23'	No	Too large	Workable
108	Jackson	median Brisbane box	2	4	Moderate	New planting; upright form; small crown	Cut-out	<13'	No	Good tree	Problematic
109	Jackson	median Brisbane box	2	4	Moderate	New planting; upright form; small crown	Cut-out	<13'	No	Good tree	Problematic
110	Jackson	median Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic

## EXISTING SURVEY

July, 2012

TREE No.	LOCATION		SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL	
											Tree	Site
111	Pacific	median	Silver dollar gum	18	4	Moderate	Codominant trunks @ 15'; corrected lean E.; large trunk wound E.	Median, wide	>23'	No	Too large	Workable
112	Pacific	median	Silver dollar gum	21	2	Poor	Heavy lean E.; large trunk wound on E.; small crown	Median, wide	>23'	No	Poor tree	Workable
113	Pacific	median	Red ironbark	29	4	Moderate	Upright form; good structure.	Median, wide	>23'	No	Too large	Workable
114	Pacific	median	Red ironbark	21	3	Poor	Upright form; very small crown; basal wound & cavity S.	Median, wide	>23'	No	Poor tree	Workable
115	Pacific	median	Red river gum	25	3	Poor	Codominant trunks @ 15'; upright form; small crown; trunk wound W. with good callus growth.	Median, wide	>23'	No	Poor tree	Workable
116	Broadway	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic
117	Broadway	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic
118	Broadway	median	Brisbane box	4	4	Moderate	Leans W.	Cut-out	<13'	No	Good tree	Problematic
119	Broadway	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic
120	Broadway	median	Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic
121	Broadway	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic
122	Vallejo	median	Plum	9	3	Poor	Multiple attachments @ 7'; thin/dieback in upper crown.	Median, wide	<13'	Yes	Poor tree	Workable
123	Vallejo	median	Plum	9	3	Poor	Multiple attachments @ 7'; trunk wound from stem failure; dieback in upper crown.	Median, wide	<13'	Yes	Poor tree	Workable
124	Vallejo	median	Plum	10	4	Moderate	Multiple attachments @ 7'; spreading form.	Median, wide	<13'	Yes?	Good tree	Workable
125	Green	E.	Blackwood acacia	24	2	Poor	Multiple attachments @ 10'; one-sided to W.; trunk wound with decay.	Cut-out	>23'	No	Poor tree	Problematic
126	Green	median	Red ironbark	23	3	Poor	Multiple crooks; high, small crown.	Median, wide	>23'	No	Too large	Workable
127	Green	median	Brisbane box	6	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic
128	Green	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic
129	Green	median	Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic
130	Union	W.	Fig	17	3	Moderate	Codominant trunks @ 6'; candelabra form; one-sided to E.	Cut-out	>23'	No	Too large	Problematic

**EXISTING SURVEY**

**July, 2012**

TREE No.	LOCATION		SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL	
											Tree	Site
131	Union	W.	Fig	20	3	Moderate	Multiple attachments @ 7'; candelabra form; one-sided to E.	Cut-out	>23'	No	Too large	Problematic
132	Union	W.	Fig	14	3	Moderate	Multiple attachments @ 7'; candelabra form; one-sided to E.	Cut-out	>23'	No	Too large	Problematic
133	Union	W.	London plane	8	4	Moderate	Codominant trunks @ 7'; small crown.	Cut-out	<13'	No	Good tree	Problematic
134	Union	median	Red-flowering gum	26	5	Good	Multiple attachments @ 10'; spreading crown; good form & structure.	Median, wide	>23'	No	Too large	Workable
135	Union	median	Flowering cherry	3	4	Moderate	Good young tree; dieback.	Median, wide	<13'	Yes	Good tree	Workable
136	Union	median	Flowering cherry	6	3	Poor	Trunk wounds; dieback.	Median, wide	<13'	No	Poor tree	Workable
137	Union	median	Flowering cherry	7	1	Poor	All but dead.	Median, wide	<13'	No	Poor tree	Workable
138	Union	median	Flowering cherry	7	5	Good	Good young tree.	Median, wide	<13'	Yes	Good tree	Workable
139	Union	median	Red-flowering gum	27	4	Moderate	Multiple attachments @ 15'; spreading form; small crown.	Median, wide	>23'	No	Too large	Workable
140	Filbert	median	Cork oak	12	4	Good	Good form & structure; upright form; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable

# Tree Assessment

Van Ness Avenue Bus Rapid Transit Study  
 BMS Design  
 San Francisco CA  
 July 2012



## LOCALLY-PREFERRED ALTERNATIVE (LPA)

10/23/2012; Updated by SFCTA 4/23/2013; Updated by BMS Design Group 4/29/2013

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	? RELOCATION POTENTIAL Tree	Site	TO BE REMOVED/PRESERVED	Median Width at Preservation Trees	
<b>TO REMAIN: MEDIAN TREES</b>													
2	Hayes	median Red-flowering gum	19	5	Good	Good form & structure.	Median, wide	>23'	No	Too large	Workable	P	11'
3	Hayes	median Red-flowering gum	27	4	Moderate	Good form & structure; trunk wounds on SE.	Median, wide	>23'	No	Too large	Workable	P	11'
4	Grove	median Cork oak	10	3	Poor	<b>No tag</b> ; surrounded by fence; slight crook @ 7'; sooty mold; bleeding along trunk.	Median, narrow	<13'	No	Poor tree	Problematic	P	11'
5	Grove	median Red-flowering gum	26	4	Moderate	<b>No tag</b> ; surrounded by fence; bottle butt; small crown for diameter.	Median, narrow	>23'	No	Too large	Problematic	P	11'
19	Golden Gate	median Brisbane box	6	4	Moderate	Good young tree; leans W.; round form.	Median, cut-out	<13'	No	Good tree	Problematic	P	9'-10'
39	Ellis	median Silver dollar gum	24	4	Moderate	Codominant trunks @ 15'; upright form.	Median, wide	>23'	No	Too large	Workable	P	10'
40	Ellis	median Silver dollar gum	22	4	Moderate	Codominant trunks @ 20'; lateral N. @ 16'.	Median, wide	>23'	No	Too large	Workable	P	11'
56	Post	median Cork oak	12	5	Good	Multiple attachments @ 10'; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable	P	9.5'-10'
57	Post	median Cork oak	13	4	Good	Relatively upright; sooty mold.	Median, wide		Yes?	Good tree	Workable	P	10'
77	Pine	median Cork oak	10	5	Good	Good young tree; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable	P	10'
94	Washington	median Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	P	10'
140	Filbert	median Cork oak	12	4	Good	Good form & structure; upright form; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable	P	10.5'
<b>TO BE REMOVED: MEDIAN TREES</b>													
6	Grove	median Red-flowering gum	19	3	Moderate	<b>No tag</b> ; surrounded by fence; small crown; large trunk wound NW.	Median, narrow	>23'	No	Too large	Problematic	X	
7	Grove	median Cork oak	8	4	Moderate	<b>No tag</b> ; surrounded by fence; codominant trunks @ 6'; sooty mold.	Median, narrow	<13'	No	Good tree	Problematic	X	
8	Grove	median Red-flowering gum	23	4	Moderate	<b>No tag</b> ; surrounded by fence; upper canopy seems thin.	Median, narrow	13' to 23'	No	Too large	Problematic	X	
9	Grove	median Cork oak	8	5	Good	<b>No tag</b> ; surrounded by fence; short, spreading crown.	Median, narrow	<13'	No	Good tree	Problematic	X	

**LOCALLY-PREFERRED ALTERNATIVE (LPA)**

**10/23/2012; Updated by SFCTA 4/23/2013; Updated by BMS Design Group 4/29/2013**

TREE No.	LOCATION		SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL		TO BE REMOVED/PRESERVED	Median Width at Preservation Trees
											Tree	Site		
10	McAllister	median	Brisbane box	5	5	Good	Good young tree; upright form	Median, cut-out	<13'	No	Good tree	Problematic	X	
11	McAllister	median	Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X	
12	McAllister	median	Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X	
13	McAllister	median	Silver dollar gum	36	4	Moderate	Codominant trunks @ 15'; twig dieback; lateral SE.	Median, wide	>23'	No	Too large	Workable	X	
14	McAllister	median	Silver dollar gum	23	3	Poor	Codominant trunks @ 12'; rib & reaction wood @ attachment; thinning crown.	Median, wide	>23'	No	Poor tree	Workable	X	
15	McAllister	median	Silver dollar gum	24	4	Moderate	Multiple attachments @ 15'; upright form; trunk wound on N.	Median, wide	>23'	No	Too large	Workable	X	
16	Golden Gate	median	Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X	
17	Golden Gate	median	Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X	
18	Golden Gate	median	Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X	
20	Golden Gate	median	Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X	
21	Golden Gate	median	Brisbane box	4	4	Moderate	Good young tree; upright form; broken branch on N.	Median, cut-out	<13'	No	Good tree	Problematic	X	
22	Turk	median	Red-flowering gum	24	4	Moderate	Corrected lean E.; displacing hardscape on W. to 1".	Median, narrow	>23'	No	Too large	Problematic	X	
23	Turk	median	Red-flowering gum	20	4	Good	Upright form; trunk wound NE.	Median, narrow	>23'	No	Too large	Problematic	X	
24	Turk	median	Red-flowering gum	24	3	Poor	Heavy lean S.; small crown.	Median, narrow	>23'	No	Poor tree	Problematic	X	
25	Turk	median	Red-flowering gum	28	2	Poor	Declining; very thin crown.	Median, narrow	>23'	No	Poor tree	Problematic	X	
34	Eddy	median	Red river gum	10	3	Poor	Crown bowed SE. @ 15'; twig dieback; lerp psyllid.	Median, cut-out	13' to 23'	No	Poor tree	Problematic	X	
35	Eddy	median	Red river gum	16	4	Moderate	Codominant trunks @ 15'; upright form; lerp psyllid.	Median, cut-out	>23'	No	Too large	Problematic	X	
36	Eddy	median	Red river gum	14	4	Moderate	Codominant trunks @ 12'; slight lean E.; lerp psyllid.	Median, cut-out	>23'	No	Too large	Problematic	X	
37	Eddy	median	Red river gum	13	3	Poor	Upright form; heavy to W.; trunk wounds; lerp psyllid.	Median, cut-out	>23'	No	Poor tree	Problematic	X	
38	Eddy	median	Red river gum	15	4	Moderate	Upright form; twig dieback; lerp psyllid.	Median, cut-out	>23'	No	Too large	Problematic	X	
41	Ellis	median	Silver dollar gum	25	4	Moderate	Multiple attachments @ 18'; lateral to E. @ 12'.	Median, wide	>23'	No	Too large	Workable	X	
42	Ellis	median	Red-flowering gum	25	3	Moderate	Lost upper crown; upright stem SE. remains.	Median, wide	>23'	No	Too large	Workable	X	*** See Comments

**LOCALLY-PREFERRED ALTERNATIVE (LPA)**

**10/23/2012; Updated by SFCTA 4/23/2013; Updated by BMS Design Group 4/29/2013**

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL Tree	Site	TO BE REMOVED/PRESERVED	Median Width at Preservation Trees
45	O'Farrell	median Brisbane box	6	3	Poor	Good young tree; lost upper crown; slight lean W.	Median, cut-out	<13'	No	Poor tree	Problematic	X	
46	O'Farrell	median Brisbane box	5	4	Moderate	Good young tree; slight lean W.	Median, cut-out	<13'	No	Good tree	Problematic	X	
47	O'Farrell	median Brisbane box	4	5	Good	Good young tree.	Median, cut-out	<13'	No	Good tree	Problematic	X	
48	O'Farrell	median Brisbane box	6	4	Moderate	Good young tree; leans N.	Median, cut-out	<13'	No	Good tree	Problematic	X	
49	O'Farrell	median Brisbane box	2	4	Moderate	Good young tree; twig dieback.	Median, cut-out	<13'	No	Good tree	Problematic	X	
50	O'Farrell	median Brisbane box	1	4	Moderate	Good young tree; twig dieback; small crown.	Median, cut-out	<13'	No	Good tree	Problematic	X	
53	Geary	median Cork oak	9	4	Moderate	Trunk sweeps N.; spreading crown; sooty mold.	Median, wide	<13'	Yes	Good tree	Workable	X	
54	Geary	median Cork oak	11	3	Poor	Small crown; fair structure; sooty mold.	Median, wide	<13'	No	Poor tree	Workable	X	*** See Comments
55	Post	median Cork oak	6	3	Poor	Small crown; leans W.; sooty mold.	Median, wide	<13'	No	Poor tree	Workable	X	*** See Comments
62	Sutter	median Red-flowering gum	25	3	Moderate	Lost upper crown; branch failure; leans W.	Median, wide	>23'	No	Too large	Workable	X	
63	Sutter	median Cork oak	8	3	Poor	Small crown; bleeding along trunk; sooty mold.	Median, wide	<13'	No	Poor tree	Workable	X	
64	Sutter	median Red-flowering gum	13	4	Good	Upright form; lateral E. @ 15'.	Median, wide	13' to 23'	Yes?	Good tree	Workable	X	
65	Sutter	median Red-flowering gum	18	4	Moderate	Spreading form; laterals E. @ 12' & 15'.	Median, wide	>23'	No	Too large	Workable	X	
68	Bush	median Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X	
69	Bush	median Brisbane box	6	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X	
70	Bush	median Brisbane box	7	4	Moderate	Upright form; trunk wounds from branch tear outs.	Median, cut-out	<13'	No	Good tree	Problematic	X	
71	Bush	median Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X	
72	Bush	median Brisbane box	6	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X	
73	Bush	median Brisbane box	3	5	Good	Good young tree; slight lean S.	Median, cut-out	<13'	No	Good tree	Problematic	X	
74	Pine	median Cork oak	10	4	Moderate	Codominant trunks @ 5'; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable	X	*** See Comments
75	Pine	median Red-flowering gum	27	4	Moderate	Codominant trunks @ 7'; upright with small lateral W. @ 10'; trunk wound S.	Median, wide	>23'	No	Too large	Workable	X	*** See Comments
76	Pine	median Cork oak	10	3	Poor	Codominant trunks @ 10'; twig dieback; sooty mold.	Median, wide	<13'	No	Poor tree	Workable	X	*** See Comments

**LOCALLY-PREFERRED ALTERNATIVE (LPA)**

**10/23/2012; Updated by SFCTA 4/23/2013; Updated by BMS Design Group 4/29/2013**

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL		TO BE REMOVED/PRESERVED	Median Width at Preservation Trees	
										Tree	Site			
84	Sacramento	median	Silver dollar gum	22	3	Poor	One-sided S.; small lateral N. @ 6'.	Median, wide	>23'	No	Poor tree	Workable	X	
85	Sacramento	median	Manna gum	23	4	Moderate	Upright form; good structure; large trunk wound W.	Median, wide	>23'	No	Too large	Workable	X	
86	Sacramento	median	Red-flowering gum	16	4	Moderate	Upright form; high, small crown.	Median, wide	>23'	No	Too large	Workable	X	
87	Sacramento	median	Red-flowering gum	28	3	Moderate	Multiple attachments @ 7'; small, spreading crown; large trunk wounds.	Median, wide	>23'	No	Too large	Workable	X	
88	Sacramento	median	Manna gum	33	4	Moderate	Multiple attachments @ 15'; spreading form; one-sided to S.	Median, wide	>23'	No	Too large	Workable	X	
89	Sacramento	median	Manna gum	30	4	Moderate	Upright; one-sided to N.	Median, wide	>23'	No	Too large	Workable	X	
90	Clay	median	Silver dollar gum	24	4	Moderate	Multiple attachments @ 20'; lateral to S. @ 18'.	Median, wide	>23'	No	Too large	Workable	X	*** See Comments
91	Clay	median	Silver dollar gum	19	4	Moderate	Codominant trunks @ 18'; high crown.	Median, wide	>23'	No	Too large	Workable	X	*** See Comments
92	Washington	median	Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
93	Washington	median	Brisbane box	6	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
95	Washington	median	Brisbane box	6	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
96	Washington	median	Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
97	Washington	median	Brisbane box	2	5	Good	New planting; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
106	Jackson	median	Cork oak	9	5	Good	Rosa Parks tree. Good form & structure; small leaves; sooty mold.	Median, wide	<13'	Yes	Good tree	Workable	X	
107	Jackson	median	Silver dollar gum	20	4	Moderate	Multiple attachments @ 10'; good form & structure.	Median, wide	>23'	No	Too large	Workable	X	
108	Jackson	median	Brisbane box	2	4	Moderate	New planting; upright form; small crown	Cut-out	<13'	No	Good tree	Problematic	X	
109	Jackson	median	Brisbane box	2	4	Moderate	New planting; upright form; small crown	Cut-out	<13'	No	Good tree	Problematic	X	
110	Jackson	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
111	Pacific	median	Silver dollar gum	18	4	Moderate	Codominant trunks @ 15'; corrected lean E.; large trunk wound E.	Median, wide	>23'	No	Too large	Workable	X	*** See Comments/9' median
112	Pacific	median	Silver dollar gum	21	2	Poor	Heavy lean E.; large trunk wound on E.; small crown	Median, wide	>23'	No	Poor tree	Workable	X-poor cond	Let's remove this tree. See Condition & Comments.
113	Pacific	median	Red ironbark	29	4	Moderate	Upright form; good structure.	Median, wide	>23'	No	Too large	Workable	X-9' median	Let's remove this tree. Median goes down to 9'.

**LOCALLY-PREFERRED ALTERNATIVE (LPA)**

**10/23/2012; Updated by SFCTA 4/23/2013; Updated by BMS Design Group 4/29/2013**

TREE No.	LOCATION		SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL		TO BE REMOVED/PRESERVED	Median Width at Preservation Trees
											Tree	Site		
114	Pacific	median	Red ironbark	21	3	Poor	Upright form; very small crown; basal wound & cavity S.	Median, wide	>23'	No	Poor tree	Workable	X	
115	Pacific	median	Red river gum	25	3	Poor	Codominant trunks @ 15'; upright form; small crown; trunk wound W. with good callus growth.	Median, wide	>23'	No	Poor tree	Workable	X	
116	Broadway	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
117	Broadway	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
118	Broadway	median	Brisbane box	4	4	Moderate	Leans W.	Cut-out	<13'	No	Good tree	Problematic	X	
119	Broadway	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
120	Broadway	median	Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
121	Broadway	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
122	Vallejo	median	Plum	9	3	Poor	Multiple attachments @ 7'; thin/dieback in upper crown.	Median, wide	<13'	Yes	Poor tree	Workable	X	
123	Vallejo	median	Plum	9	3	Poor	Multiple attachments @ 7'; trunk wound from stem failure; dieback in upper crown.	Median, wide	<13'	Yes	Poor tree	Workable	X	
124	Vallejo	median	Plum	10	4	Moderate	Multiple attachments @ 7'; spreading form.	Median, wide	<13'	Yes?	Good tree	Workable	X	
126	Green	median	Red ironbark	23	3	Poor	Multiple crooks; high, small crown.	Median, wide	>23'	No	Too large	Workable	X	
127	Green	median	Brisbane box	6	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
128	Green	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
129	Green	median	Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X	
134	Union	median	Red-flowering gum	26	5	Good	Multiple attachments @ 10'; spreading crown; good form & structure.	Median, wide	>23'	No	Too large	Workable	X	
135	Union	median	Flowering cherry	3	4	Moderate	Good young tree; dieback.	Median, wide	<13'	Yes	Good tree	Workable	X	
136	Union	median	Flowering cherry	6	3	Poor	Trunk wounds; dieback.	Median, wide	<13'	No	Poor tree	Workable	X	
137	Union	median	Flowering cherry	7	1	Poor	All but dead.	Median, wide	<13'	No	Poor tree	Workable	X	
138	Union	median	Flowering cherry	7	5	Good	Good young tree.	Median, wide	<13'	Yes	Good tree	Workable	X	
139	Union	median	Red-flowering gum	27	4	Moderate	Multiple attachments @ 15'; spreading form; small crown.	Median, wide	>23'	No	Too large	Workable	X	

\*\*\* See Comments

NOTE

In LPA, all trees not affected by direct construction can be pruned to clear the OCS, with the exception of Trees #112 (poor condition) & #113 (won't survive reduced median to 9').

# Tree Assessment

Van Ness Avenue Bus Rapid Transit Study  
 BMS Design  
 San Francisco CA  
 July 2012



## ALTERNATIVE 2 - Sidewalk

10/15/2012

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	? Tree	RELOCATION POTENTIAL Site	
<b>TO BE REMOVED: EAST SIDEWALK TREES</b>											
1	Market	E. Brisbane box	2	3	Poor	Small thin crown; leaf necrosis.	Cut-out	<13'	No	Poor tree	Problematic
30	Eddy	E. London plane	6	3	Moderate	Asymmetric crown; slight lean E.	Cut-out	<13'	No	Okay tree	Problematic
31	Eddy	E. London plane	6	4	Moderate	Codominant trunks @ 6'; twig dieback.	Cut-out	<13'	No	Good tree	Problematic
32	Eddy	E. London plane	6	4	Moderate	Codominant trunks @ 10'; twig dieback; branch wound.	Cut-out	<13'	No	Good tree	Problematic
33	Eddy	E. London plane	8	4	Moderate	Upright form; twig dieback.	Cut-out	<13'	No	Good tree	Problematic
51	O'Farrell	E. Fig	3	2	Poor	<b>No tag</b> ; in moveable pot; dieback.	Pot	<13'	No	Poor tree	Pot
52	O'Farrell	E. Fig	3	2	Poor	<b>No tag</b> ; in moveable pot; dieback.	Pot	<13'	No	Poor tree	Pot
66	Sutter	E. London plane	6	3	Moderate	Codominant trunks @ 8'; slight lean W.; fair structure.	Teeny circle	<13'	No	Okay tree	Problematic
67	Sutter	E. London plane	12	5	Good	Good form & structure; displacing hardscape to 2".	Teeny circle	13' to 23'	No	Good tree	Problematic
80	Sacramento	E. London plane	8	3	Moderate	Slight lean NW; base growing against tree grate; twig dieback.	Cut-out	<13'	No	Okay tree	Problematic
81	Sacramento	E. London plane	4	3	Poor	Small crown; twig dieback.	Cut-out	<13'	No	Poor tree	Problematic
82	Sacramento	E. London plane	7	3	Poor	Leans NW; base growing against tree grate; one-sided to N.	Cut-out	<13'	No	Poor tree	Problematic
83	Sacramento	E. London plane	7	3	Moderate	Leans NW; base growing against tree grate; one-sided to N.	Cut-out	<13'	No	Okay tree	Problematic
98	Washington	E. Fig	18	4	Moderate	Multiple attachments @ 6'; candelabra form	Cut-out	>23'	No	Too large	Problematic
99	Washington	E. Fig	16	4	Moderate	Multiple attachments @ 6'; candelabra form	Cut-out	>23'	No	Too large	Problematic
100	Washington	E. Fig	16	4	Moderate	Multiple attachments @ 6'; candelabra form; branch wounds on W.	Cut-out	>23'	No	Too large	Problematic
101	Washington	E. Fig	16	3	Poor	Multiple attachments @ 8'; trunk wound W. where stem was ripped out.	Cut-out	>23'	No	Poor tree	Problematic

## ALTERNATIVE 2 - Sidewalk

10/15/2012

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	? Tree	RELOCATION POTENTIAL Site	
<b>TO BE REMOVED: EAST SIDEWALK TREES</b>											
1	Market	E. Brisbane box	2	3	Poor	Small thin crown; leaf necrosis.	Cut-out	<13'	No	Poor tree	Problematic
125	Green	E. Blackwood acacia	24	2	Poor	Multiple attachments @ 10'; one-sided to W.; trunk wound with decay.	Cut-out	>23'	No	Poor tree	Problematic
<b>TO BE REMOVED: WEST SIDEWALK TREES</b>											
26	Turk	W. London plane	8	4	Moderate	Twig dieback in upper crown; crossing branches.	Cut-out	<13'	No	Good tree	Problematic
27	Turk	W. London plane	7	4	Moderate	Twig dieback; already pruned E.	Cut-out	<13'	No	Good tree	Problematic
28	Turk	W. London plane	5	2	Poor	Small crown; extensive trunk wounds N.	Cut-out	<13'	No	Poor tree	Problematic
29	Turk	W. London plane	7	4	Good	Upright form; fair structure.	Cut-out	<13'	No	Good tree	Problematic
43	Ellis	W. London plane	5	5	Good	Upright form; good young tree	Cut-out	<13'	No	Good tree	Problematic
44	Ellis	W. London plane	4	5	Good	Upright form; good young tree	Cut-out	<13'	No	Good tree	Problematic
58	Post	W. London plane	5	3	Poor	Upright form; topped @ 12'.	Teeny circle	<13'	No	Poor tree	Problematic
59	Post	W. London plane	6	3	Poor	Upright form; topped @ 12'.	Teeny circle	<13'	No	Poor tree	Problematic
60	Post	W. London plane	6	3	Poor	Upright form; topped @ 12'; cut out flooded; trunk wounded by tree guard.	Teeny circle	<13'	No	Poor tree	Problematic
61	Post	W. London plane	6	3	Poor	Upright form; topped @ 12'; trunk wounded by tree guard.	Teeny circle	<13'	No	Poor tree	Problematic
78	California	W. London plane	9	4	Moderate	Multiple attachments @ 12'; crown bowed E.	Cut-out	<13'	No	Good tree	Problematic
79	California	W. London plane	8	4	Moderate	Good young tree; twig dieback.	Cut-out	<13'	No	Good tree	Problematic
102	Jackson	W. London plane	8	4	Moderate	Upright form; crook @ 7'; twig dieback.	Cut-out	<13'	No	Good tree	Problematic
103	Jackson	W. London plane	9	4	Moderate	Upright form; twig dieback.	Cut-out	<13'	No	Good tree	Problematic
104	Jackson	W. London plane	11	4	Moderate	Upright form; twig dieback.	Cut-out	<13'	No	Good tree	Problematic
105	Jackson	W. London plane	8	4	Good	High crown; slight lean W.	Cut-out	<13'	No	Good tree	Problematic
130	Union	W. Fig	17	3	Moderate	Codominant trunks @ 6'; candelabra form; one-sided to E.	Cut-out	>23'	No	Too large	Problematic
131	Union	W. Fig	20	3	Moderate	Multiple attachments @ 7'; candelabra form; one-sided to E.	Cut-out	>23'	No	Too large	Problematic
132	Union	W. Fig	14	3	Moderate	Multiple attachments @ 7'; candelabra form; one-sided to E.	Cut-out	>23'	No	Too large	Problematic

**ALTERNATIVE 2 - Sidewalk**

**10/15/2012**

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	RELOCATION POTENTIAL			
				1=poor 5=excellent					?	Tree	Site	
<b>TO BE REMOVED: EAST SIDEWALK TREES</b>												
1	Market	E.	Brisbane box	2	3	Poor	Small thin crown; leaf neucrosis.	Cut-out	<13'	No	Poor tree	Problematic
133	Union	W.	London plane	8	4	Moderate	Codominant trunks @ 7'; small crown.	Cut-out	<13'	No	Good tree	Problematic

# Tree Assessment

Van Ness Avenue Bus Rapid Transit Study  
 BMS Design  
 San Francisco CA  
 July 2012



## ALTERNATIVE 2 - Median

10/15/2012

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL		TO BE REMOVED/PRESERVED	
										Tree	Site		
<b>TREES TO BE REMOVED</b>													
45	O'Farrell	median	Brisbane box	6	3	Poor	Good young tree; lost upper crown; slight lean W.	Median, cut-out	<13'	No	Poor tree	Problematic	X
34	Eddy	median	Red river gum	10	3	Poor	Crown bowed SE. @ 15'; twig dieback; lerp psyllid.	Median, cut-out	13' to 23'	No	Poor tree	Problematic	X
37	Eddy	median	Red river gum	13	3	Poor	Upright form; heavy to W.; trunk wounds; lerp psyllid.	Median, cut-out	>23'	No	Poor tree	Problematic	X
46	O'Farrell	median	Brisbane box	5	4	Moderate	Good young tree; slight lean W.	Median, cut-out	<13'	No	Good tree	Problematic	X
48	O'Farrell	median	Brisbane box	6	4	Moderate	Good young tree; leans N.	Median, cut-out	<13'	No	Good tree	Problematic	X
49	O'Farrell	median	Brisbane box	2	4	Moderate	Good young tree; twig dieback.	Median, cut-out	<13'	No	Good tree	Problematic	X
50	O'Farrell	median	Brisbane box	1	4	Moderate	Good young tree; twig dieback; small crown.	Median, cut-out	<13'	No	Good tree	Problematic	X
108	Jackson	median	Brisbane box	2	4	Moderate	New planting; upright form; small crown	Cut-out	<13'	No	Good tree	Problematic	X
109	Jackson	median	Brisbane box	2	4	Moderate	New planting; upright form; small crown	Cut-out	<13'	No	Good tree	Problematic	X
35	Eddy	median	Red river gum	16	4	Moderate	Codominant trunks @ 15'; upright form; lerp psyllid.	Median, cut-out	>23'	No	Too large	Problematic	X
38	Eddy	median	Red river gum	15	4	Moderate	Upright form; twig dieback; lerp psyllid.	Median, cut-out	>23'	No	Too large	Problematic	X
10	McAllister	median	Brisbane box	5	5	Good	Good young tree; upright form	Median, cut-out	<13'	No	Good tree	Problematic	X
11	McAllister	median	Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X
12	McAllister	median	Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X
92	Washington	median	Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
93	Washington	median	Brisbane box	6	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
95	Washington	median	Brisbane box	6	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
96	Washington	median	Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
97	Washington	median	Brisbane box	2	5	Good	New planting; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
110	Jackson	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X

## ALTERNATIVE 2 - Median

10/15/2012

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL		TO BE REMOVED/PRESERVED
										Tree	Site	
<b>TREES TO REMAIN</b>												
137	Union	median	Flowering cherry	7	1	Poor	All but dead.	Median, wide	<13'	No	Poor tree	Workable
25	Turk	median	Red-flowering gum	28	2	Poor	Declining; very thin crown.	Median, narrow	>23'	No	Poor tree	Problematic
112	Pacific	median	Silver dollar gum	21	2	Poor	Heavy lean E.; large trunk wound on E.; small crown	Median, wide	>23'	No	Poor tree	Workable
4	Grove	median	Cork oak	10	3	Poor	<b>No tag</b> ; surrounded by fence; slight crook @ 7'; sooty mold; bleeding along trunk.	Median, narrow	<13'	No	Poor tree	Problematic
54	Geary	median	Cork oak	11	3	Poor	Small crown; fair structure; sooty mold.	Median, wide	<13'	No	Poor tree	Workable
55	Post	median	Cork oak	6	3	Poor	Small crown; leans W.; sooty mold.	Median, wide	<13'	No	Poor tree	Workable
63	Sutter	median	Cork oak	8	3	Poor	Small crown; bleeding along trunk; sooty mold.	Median, wide	<13'	No	Poor tree	Workable
76	Pine	median	Cork oak	10	3	Poor	Codominant trunks @ 10'; twig dieback; sooty mold.	Median, wide	<13'	No	Poor tree	Workable
122	Vallejo	median	Plum	9	3	Poor	Multiple attachments @ 7'; thin/dieback in upper crown.	Median, wide	<13'	Yes	Poor tree	Workable
123	Vallejo	median	Plum	9	3	Poor	Multiple attachments @ 7'; trunk wound from stem failure; dieback in upper crown.	Median, wide	<13'	Yes	Poor tree	Workable
136	Union	median	Flowering cherry	6	3	Poor	Trunk wounds; dieback.	Median, wide	<13'	No	Poor tree	Workable
6	Grove	median	Red-flowering gum	19	3	Moderate	<b>No tag</b> ; surrounded by fence; small crown; large trunk wound NW.	Median, narrow	>23'	No	Too large	Problematic
14	McAllister	median	Silver dollar gum	23	3	Poor	Codominant trunks @ 12'; rib & reaction wood @ attachment; thinning crown.	Median, wide	>23'	No	Poor tree	Workable
24	Turk	median	Red-flowering gum	24	3	Poor	Heavy lean S.; small crown.	Median, narrow	>23'	No	Poor tree	Problematic
42	Ellis	median	Red-flowering gum	25	3	Moderate	Lost upper crown; upright stem SE. remains.	Median, wide	>23'	No	Too large	Workable
62	Sutter	median	Red-flowering gum	25	3	Moderate	Lost upper crown; branch failure; leans W.	Median, wide	>23'	No	Too large	Workable
84	Sacramento	median	Silver dollar gum	22	3	Poor	One-sided S.; small lateral N. @ 6'.	Median, wide	>23'	No	Poor tree	Workable
87	Sacramento	median	Red-flowering gum	28	3	Moderate	Multiple attachments @ 7'; small, spreading crown; large trunk wounds.	Median, wide	>23'	No	Too large	Workable
114	Pacific	median	Red ironbark	21	3	Poor	Upright form; very small crown; basal wound & cavity S.	Median, wide	>23'	No	Poor tree	Workable

## ALTERNATIVE 2 - Median

10/15/2012

TREE No.	LOCATION		SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL		TO BE REMOVED/PRESERVED
											Tree	Site	
115	Pacific	median	Red river gum	25	3	Poor	Codominant trunks @ 15'; upright form; small crown; trunk wound W. with good callus growth.	Median, wide	>23'	No	Poor tree	Workable	
126	Green	median	Red ironbark	23	3	Poor	Multiple crooks; high, small crown.	Median, wide	>23'	No	Too large	Workable	
7	Grove	median	Cork oak	8	4	Moderate	<b>No tag</b> ; surrounded by fence; codominant trunks @ 6'; sooty mold.	Median, narrow	<13'	No	Good tree	Problematic	
19	Golden Gate	median	Brisbane box	6	4	Moderate	Good young tree; leans W.; round form.	Median, cut-out	<13'	No	Good tree	Problematic	
21	Golden Gate	median	Brisbane box	4	4	Moderate	Good young tree; upright form; broken branch on N.	Median, cut-out	<13'	No	Good tree	Problematic	
53	Geary	median	Cork oak	9	4	Moderate	Trunk sweeps N.; spreading crown; sooty mold.	Median, wide	<13'	Yes	Good tree	Workable	
70	Bush	median	Brisbane box	7	4	Moderate	Upright form; trunk wounds from branch tear outs.	Median, cut-out	<13'	No	Good tree	Problematic	
74	Pine	median	Cork oak	10	4	Moderate	Codominant trunks @ 5'; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable	
118	Broadway	median	Brisbane box	4	4	Moderate	Leans W.	Cut-out	<13'	No	Good tree	Problematic	
124	Vallejo	median	Plum	10	4	Moderate	Multiple attachments @ 7'; spreading form.	Median, wide	<13'	Yes?	Good tree	Workable	
135	Union	median	Flowering cherry	3	4	Moderate	Good young tree; dieback.	Median, wide	<13'	Yes	Good tree	Workable	
140	Filbert	median	Cork oak	12	4	Good	Good form & structure; upright form; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable	
64	Sutter	median	Red-flowering gum	13	4	Good	Upright form; lateral E. @ 15'.	Median, wide	13' to 23'	Yes?	Good tree	Workable	
3	Hayes	median	Red-flowering gum	27	4	Moderate	Good form & structure; trunk wounds on SE.	Median, wide	>23'	No	Too large	Workable	
5	Grove	median	Red-flowering gum	26	4	Moderate	<b>No tag</b> ; surrounded by fence; bottle butt; small crown for diameter.	Median, narrow	>23'	No	Too large	Problematic	
13	McAllister	median	Silver dollar gum	36	4	Moderate	Codominant trunks @ 15'; twig dieback; lateral SE.	Median, wide	>23'	No	Too large	Workable	
15	McAllister	median	Silver dollar gum	24	4	Moderate	Multiple attachments @ 15'; upright form; trunk wound on N.	Median, wide	>23'	No	Too large	Workable	
22	Turk	median	Red-flowering gum	24	4	Moderate	Corrected lean E.; displacing hardscape on W. to 1".	Median, narrow	>23'	No	Too large	Problematic	
23	Turk	median	Red-flowering gum	20	4	Good	Upright form; trunk wound NE.	Median, narrow	>23'	No	Too large	Problematic	
36	Eddy	median	Red river gum	14	4	Moderate	Codominant trunks @ 12'; slight lean E.; lerp psyllid.	Median, cut-out	>23'	No	Too large	Problematic	
39	Ellis	median	Silver dollar gum	24	4	Moderate	Codominant trunks @ 15'; upright form.	Median, wide	>23'	No	Too large	Workable	

## ALTERNATIVE 2 - Median

10/15/2012

TREE No.	LOCATION		SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL		TO BE REMOVED/PRESERVED
											Tree	Site	
40	Ellis	median	Silver dollar gum	22	4	Moderate	Codominant trunks @ 20'; lateral N. @ 16'.	Median, wide	>23'	No	Too large	Workable	
41	Ellis	median	Silver dollar gum	25	4	Moderate	Multiple attachments @ 18'; lateral to E. @ 12'.	Median, wide	>23'	No	Too large	Workable	
65	Sutter	median	Red-flowering gum	18	4	Moderate	Spreading form; laterals E. @ 12' & 15'.	Median, wide	>23'	No	Too large	Workable	
75	Pine	median	Red-flowering gum	27	4	Moderate	Codominant trunks @ 7'; upright with small lateral W. @ 10'; trunk wound S.	Median, wide	>23'	No	Too large	Workable	
85	Sacramento	median	Manna gum	23	4	Moderate	Upright form; good structure; large trunk wound W.	Median, wide	>23'	No	Too large	Workable	
86	Sacramento	median	Red-flowering gum	16	4	Moderate	Upright form; high, small crown.	Median, wide	>23'	No	Too large	Workable	
88	Sacramento	median	Manna gum	33	4	Moderate	Multiple attachments @ 15'; spreading form; one-sided to S.	Median, wide	>23'	No	Too large	Workable	
89	Sacramento	median	Manna gum	30	4	Moderate	Upright; one-sided to N.	Median, wide	>23'	No	Too large	Workable	
90	Clay	median	Silver dollar gum	24	4	Moderate	Multiple attachments @ 20'; lateral to S. @ 18'.	Median, wide	>23'	No	Too large	Workable	
91	Clay	median	Silver dollar gum	19	4	Moderate	Codominant trunks @ 18'; high crown.	Median, wide	>23'	No	Too large	Workable	
107	Jackson	median	Silver dollar gum	20	4	Moderate	Multiple attachments @ 10'; good form & structure.	Median, wide	>23'	No	Too large	Workable	
111	Pacific	median	Silver dollar gum	18	4	Moderate	Codominant trunks @ 15'; corrected lean E.; large trunk wound E.	Median, wide	>23'	No	Too large	Workable	
113	Pacific	median	Red ironbark	29	4	Moderate	Upright form; good structure.	Median, wide	>23'	No	Too large	Workable	
139	Union	median	Red-flowering gum	27	4	Moderate	Multiple attachments @ 15'; spreading form; small crown.	Median, wide	>23'	No	Too large	Workable	
8	Grove	median	Red-flowering gum	23	4	Moderate	<b>No tag</b> ; surrounded by fence; upper canopy seems thin.	Median, narrow	13' to 23'	No	Too large	Problematic	
57	Post	median	Cork oak	13	4	Good	Relatively upright; sooty mold.	Median, wide		Yes?	Good tree	Workable	
9	Grove	median	Cork oak	8	5	Good	<b>No tag</b> ; surrounded by fence; short, spreading crown.	Median, narrow	<13'	No	Good tree	Problematic	
16	Golden Gate	median	Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	
17	Golden Gate	median	Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	
18	Golden Gate	median	Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	
20	Golden Gate	median	Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	

ALTERNATIVE 2 - Median

10/15/2012

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL Tree	Site	TO BE REMOVED/PRESERVED
47	O'Farrell	median Brisbane box	4	5	Good	Good young tree.	Median, cut-out	<13'	No	Good tree	Problematic	
56	Post	median Cork oak	12	5	Good	Multiple attachments @ 10'; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable	
68	Bush	median Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	
69	Bush	median Brisbane box	6	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	
71	Bush	median Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	
72	Bush	median Brisbane box	6	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	
73	Bush	median Brisbane box	3	5	Good	Good young tree; slight lean S.	Median, cut-out	<13'	No	Good tree	Problematic	
77	Pine	median Cork oak	10	5	Good	Good young tree; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable	
94	Washington	median Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	
106	Jackson	median Cork oak	9	5	Good	Rosa Parks tree. Good form & structure; small leaves; sooty mold.	Median, wide	<13'	Yes	Good tree	Workable	
116	Broadway	median Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	
117	Broadway	median Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	
119	Broadway	median Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	
120	Broadway	median Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	
121	Broadway	median Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	
127	Green	median Brisbane box	6	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	
128	Green	median Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	
129	Green	median Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	
138	Union	median Flowering cherry	7	5	Good	Good young tree.	Median, wide	<13'	Yes	Good tree	Workable	
2	Hayes	median Red-flowering gum	19	5	Good	Good form & structure.	Median, wide	>23'	No	Too large	Workable	
134	Union	median Red-flowering gum	26	5	Good	Multiple attachments @ 10'; spreading crown; good form & structure.	Median, wide	>23'	No	Too large	Workable	

# Tree Assessment

Van Ness Avenue Bus Rapid Transit Study  
 BMS Design  
 San Francisco CA  
 July 2012



## ALTERNATIVE 4 - Median 10/23/2012

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	? Tree	RELOCATION POTENTIAL Site	TO BE REMOVED/PRESERVED	
<b>TO REMAIN: MEDIAN TREES</b>												
4	Grove	median Cork oak	10	3	Poor	<b>No tag</b> ; surrounded by fence; slight crook @ 7'; sooty mold; bleeding along trunk.	Median, narrow	<13'	No	Poor tree	Problematic	p
5	Grove	median Red-flowering gum	26	4	Moderate	<b>No tag</b> ; surrounded by fence; bottle butt; small	Median, narrow	>23'	No	Too large	Problematic	p
6	Grove	median Red-flowering gum	19	3	Moderate	<b>No tag</b> ; surrounded by fence; small crown; large trunk wound NW.	Median, narrow	>23'	No	Too large	Problematic	p
7	Grove	median Cork oak	8	4	Moderate	<b>No tag</b> ; surrounded by fence; codominant trunks @ 6'; sooty mold.	Median, narrow	<13'	No	Good tree	Problematic	p
13	McAllister	median Silver dollar gum	36	4	Moderate	Codominant trunks @ 15'; twig dieback; lateral SE.	Median, wide	>23'	No	Too large	Workable	p
14	McAllister	median Silver dollar gum	23	3	Poor	Codominant trunks @ 12'; rib & reaction wood @ attachment; thinning crown.	Median, wide	>23'	No	Poor tree	Workable	p
15	McAllister	median Silver dollar gum	24	4	Moderate	Multiple attachments @ 15'; upright form; trunk wound on N.	Median, wide	>23'	No	Too large	Workable	p
19	Golden Gate	median Brisbane box	6	4	Moderate	Good young tree; leans W.; round form.	Median, cut-out	<13'	No	Good tree	Problematic	p
22	Turk	median Red-flowering gum	24	4	Moderate	Corrected lean E.; displacing hardscape on W. to 1".	Median, narrow	>23'	No	Too large	Problematic	p
39	Ellis	median Silver dollar gum	24	4	Moderate	Codominant trunks @ 15'; upright form.	Median, wide	>23'	No	Too large	Workable	p
40	Ellis	median Silver dollar gum	22	4	Moderate	Codominant trunks @ 20'; lateral N. @ 16'.	Median, wide	>23'	No	Too large	Workable	p
41	Ellis	median Silver dollar gum	25	4	Moderate	Multiple attachments @ 18'; lateral to E. @ 12'.	Median, wide	>23'	No	Too large	Workable	p
42	Ellis	median Red-flowering gum	25	3	Moderate	Lost upper crown; upright stem SE. remains.	Median, wide	>23'	No	Too large	Workable	p
53	Geary	median Cork oak	9	4	Moderate	Trunk sweeps N.; spreading crown; sooty mold.	Median, wide	<13'	Yes	Good tree	Workable	p
54	Geary	median Cork oak	11	3	Poor	Small crown; fair structure; sooty mold.	Median, wide	<13'	No	Poor tree	Workable	p
64	Sutter	median Red-flowering gum	13	4	Good	Upright form; lateral E. @ 15'.	Median, wide	13' to 23'	Yes?	Good tree	Workable	p

## ALTERNATIVE 4 - Median

10/23/2012

TREE No.	LOCATION		SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	RELOCATION POTENTIAL			TO BE REMOVED/ PRESERVED
										?	Tree	Site	
65	Sutter	median	Red-flowering gum	18	4	Moderate	Spreading form; laterals E. @ 12' & 15'.	Median, wide	>23'	No	Too large	Workable	p
70	Bush	median	Brisbane box	7	4	Moderate	Upright form; trunk wounds from branch tear outs.	Median, cut-out	<13'	No	Good tree	Problematic	p
74	Pine	median	Cork oak	10	4	Moderate	Codominant trunks @ 5'; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable	p
75	Pine	median	Red-flowering gum	27	4	Moderate	Codominant trunks @ 7'; upright with small lateral W. @ 10'; trunk wound S.	Median, wide	>23'	No	Too large	Workable	p
76	Pine	median	Cork oak	10	3	Poor	Codominant trunks @ 10'; twig dieback; sooty mold.	Median, wide	<13'	No	Poor tree	Workable	p
77	Pine	median	Cork oak	10	5	Good	Good young tree; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable	p
88	Sacramento	median	Manna gum	33	4	Moderate	Multiple attachments @ 15'; spreading form; one-sided to S.	Median, wide	>23'	No	Too large	Workable	p
89	Sacramento	median	Manna gum	30	4	Moderate	Upright; one-sided to N.	Median, wide	>23'	No	Too large	Workable	p
90	Clay	median	Silver dollar gum	24	4	Moderate	Multiple attachments @ 20'; lateral to S. @ 18'.	Median, wide	>23'	No	Too large	Workable	p
91	Clay	median	Silver dollar gum	19	4	Moderate	Codominant trunks @ 18'; high crown.	Median, wide	>23'	No	Too large	Workable	p
94	Washington	median	Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	p
111	Pacific	median	Silver dollar gum	18	4	Moderate	Codominant trunks @ 15'; corrected lean E.; large trunk wound E.	Median, wide	>23'	No	Too large	Workable	p
113	Pacific	median	Red ironbark	29	4	Moderate	Upright form; good structure.	Median, wide	>23'	No	Too large	Workable	p
114	Pacific	median	Red ironbark	21	3	Poor	Upright form; very small crown; basal wound & cavity S.	Median, wide	>23'	No	Poor tree	Workable	p
115	Pacific	median	Red river gum	25	3	Poor	Codominant trunks @ 15'; upright form; small crown; trunk wound W. with good callus growth.	Median, wide	>23'	No	Poor tree	Workable	p
122	Vallejo	median	Plum	9	3	Poor	Multiple attachments @ 7'; thin/dieback in upper crown.	Median, wide	<13'	Yes	Poor tree	Workable	p
123	Vallejo	median	Plum	9	3	Poor	Multiple attachments @ 7'; trunk wound from stem failure; dieback in upper crown.	Median, wide	<13'	Yes	Poor tree	Workable	p
124	Vallejo	median	Plum	10	4	Moderate	Multiple attachments @ 7'; spreading form.	Median, wide	<13'	Yes?	Good tree	Workable	p
126	Green	median	Red ironbark	23	3	Poor	Multiple crooks; high, small crown.	Median, wide	>23'	No	Too large	Workable	p
138	Union	median	Flowering cherry	7	5	Good	Good young tree.	Median, wide	<13'	Yes	Good tree	Workable	p

## ALTERNATIVE 4 - Median

10/23/2012

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL Tree	Site	TO BE REMOVED/PRESERVED
139	Union	median Red-flowering gum	27	4	Moderate	Multiple attachments @ 15'; spreading form; small crown.	Median, wide	>23'	No	Too large	Workable	p
140	Filbert	median Cork oak	12	4	Good	Good form & structure; upright form; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable	p
<b>TO BE REMOVED: MEDIAN TREES</b>												
2	Hayes	median Red-flowering gum	19	5	Good	Good form & structure.	Median, wide	>23'	No	Too large	Workable	X
3	Hayes	median Red-flowering gum	27	4	Moderate	Good form & structure; trunk wounds on SE.	Median, wide	>23'	No	Too large	Workable	X
8	Grove	median Red-flowering gum	23	4	Moderate	<b>No tag</b> ; surrounded by fence; upper canopy seems thin.	Median, narrow	13' to 23'	No	Too large	Problematic	X
9	Grove	median Cork oak	8	5	Good	<b>No tag</b> ; surrounded by fence; short, spreading crown.	Median, narrow	<13'	No	Good tree	Problematic	X
10	McAllister	median Brisbane box	5	5	Good	Good young tree; upright form	Median, cut-out	<13'	No	Good tree	Problematic	X
11	McAllister	median Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X
12	McAllister	median Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X
16	Golden Gate	median Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X
17	Golden Gate	median Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X
18	Golden Gate	median Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X
20	Golden Gate	median Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X
21	Golden Gate	median Brisbane box	4	4	Moderate	Good young tree; upright form; broken branch on N.	Median, cut-out	<13'	No	Good tree	Problematic	X
23	Turk	median Red-flowering gum	20	4	Good	Upright form; trunk wound NE.	Median, narrow	>23'	No	Too large	Problematic	X
24	Turk	median Red-flowering gum	24	3	Poor	Heavy lean S.; small crown.	Median, narrow	>23'	No	Poor tree	Problematic	X
25	Turk	median Red-flowering gum	28	2	Poor	Declining; very thin crown.	Median, narrow	>23'	No	Poor tree	Problematic	X
34	Eddy	median Red river gum	10	3	Poor	Crown bowed SE. @ 15'; twig dieback; lerp psyllid.	Median, cut-out	13' to 23'	No	Poor tree	Problematic	X
35	Eddy	median Red river gum	16	4	Moderate	Codominant trunks @ 15'; upright form; lerp psyllid.	Median, cut-out	>23'	No	Too large	Problematic	X
36	Eddy	median Red river gum	14	4	Moderate	Codominant trunks @ 12'; slight lean E.; lerp psyllid.	Median, cut-out	>23'	No	Too large	Problematic	X
37	Eddy	median Red river gum	13	3	Poor	Upright form; heavy to W.; trunk wounds; lerp psyllid.	Median, cut-out	>23'	No	Poor tree	Problematic	X
38	Eddy	median Red river gum	15	4	Moderate	Upright form; twig dieback; lerp psyllid.	Median, cut-out	>23'	No	Too large	Problematic	X

## ALTERNATIVE 4 - Median

10/23/2012

TREE No.	LOCATION		SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL		TO BE REMOVED/PRESERVED
											Tree	Site	
45	O'Farrell	median	Brisbane box	6	3	Poor	Good young tree; lost upper crown; slight lean W.	Median, cut-out	<13'	No	Poor tree	Problematic	X
46	O'Farrell	median	Brisbane box	5	4	Moderate	Good young tree; slight lean W.	Median, cut-out	<13'	No	Good tree	Problematic	X
47	O'Farrell	median	Brisbane box	4	5	Good	Good young tree.	Median, cut-out	<13'	No	Good tree	Problematic	X
48	O'Farrell	median	Brisbane box	6	4	Moderate	Good young tree; leans N.	Median, cut-out	<13'	No	Good tree	Problematic	X
49	O'Farrell	median	Brisbane box	2	4	Moderate	Good young tree; twig dieback.	Median, cut-out	<13'	No	Good tree	Problematic	X
50	O'Farrell	median	Brisbane box	1	4	Moderate	Good young tree; twig dieback; small crown.	Median, cut-out	<13'	No	Good tree	Problematic	X
55	Post	median	Cork oak	6	3	Poor	Small crown; leans W.;	Median, wide	<13'	No	Poor tree	Workable	X
56	Post	median	Cork oak	12	5	Good	Multiple attachments @ 10'; sooty mold.	Median, wide	<13'	Yes?	Good tree	Workable	X
57	Post	median	Cork oak	13	4	Good	Relatively upright; sooty mold.	Median, wide		Yes?	Good tree	Workable	X
62	Sutter	median	Red-flowering gum	25	3	Moderate	Lost upper crown; branch failure; leans W.	Median, wide	>23'	No	Too large	Workable	X
63	Sutter	median	Cork oak	8	3	Poor	Small crown; bleeding along trunk; sooty mold.	Median, wide	<13'	No	Poor tree	Workable	X
68	Bush	median	Brisbane box	5	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X
69	Bush	median	Brisbane box	6	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X
71	Bush	median	Brisbane box	4	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X
72	Bush	median	Brisbane box	6	5	Good	Good young tree; upright form.	Median, cut-out	<13'	No	Good tree	Problematic	X
73	Bush	median	Brisbane box	3	5	Good	Good young tree; slight lean S.	Median, cut-out	<13'	No	Good tree	Problematic	X
84	Sacramento	median	Silver dollar gum	22	3	Poor	One-sided S.; small lateral N. @ 6'.	Median, wide	>23'	No	Poor tree	Workable	X
85	Sacramento	median	Manna gum	23	4	Moderate	Upright form; good structure; large trunk wound W.	Median, wide	>23'	No	Too large	Workable	X
86	Sacramento	median	Red-flowering gum	16	4	Moderate	Upright form; high, small crown.	Median, wide	>23'	No	Too large	Workable	X
87	Sacramento	median	Red-flowering gum	28	3	Moderate	Multiple attachments @ 7'; small, spreading crown; large trunk wounds.	Median, wide	>23'	No	Too large	Workable	X
92	Washington	median	Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
93	Washington	median	Brisbane box	6	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
95	Washington	median	Brisbane box	6	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X

## ALTERNATIVE 4 - Median

10/23/2012

TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	PLANTING SPACE	OCS Current height	?	RELOCATION POTENTIAL		TO BE REMOVED/PRESERVED	
										Tree	Site		
96	Washington	median	Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
97	Washington	median	Brisbane box	2	5	Good	New planting; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
106	Jackson	median	Cork oak	9	5	Good	Rosa Parks tree. Good form & structure; small leaves; sooty mold.	Median, wide	<13'	Yes	Good tree	Workable	X
107	Jackson	median	Silver dollar gum	20	4	Moderate	Multiple attachments @ 10'; good form & structure.	Median, wide	>23'	No	Too large	Workable	X
108	Jackson	median	Brisbane box	2	4	Moderate	New planting; upright form; small crown	Cut-out	<13'	No	Good tree	Problematic	X
109	Jackson	median	Brisbane box	2	4	Moderate	New planting; upright form; small crown	Cut-out	<13'	No	Good tree	Problematic	X
110	Jackson	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
112	Pacific	median	Silver dollar gum	21	2	Poor	Heavy lean E.; large trunk wound on E.; small crown	Median, wide	>23'	No	Poor tree	Workable	X-poor cond
116	Broadway	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
117	Broadway	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
118	Broadway	median	Brisbane box	4	4	Moderate	Leans W.	Cut-out	<13'	No	Good tree	Problematic	X
119	Broadway	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
120	Broadway	median	Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
121	Broadway	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
127	Green	median	Brisbane box	6	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
128	Green	median	Brisbane box	4	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
129	Green	median	Brisbane box	5	5	Good	Good young tree; upright form.	Cut-out	<13'	No	Good tree	Problematic	X
134	Union	median	Red-flowering gum	26	5	Good	Multiple attachments @ 10'; spreading crown; good form & structure.	Median, wide	>23'	No	Too large	Workable	X
135	Union	median	Flowering cherry	3	4	Moderate	Good young tree; dieback.	Median, wide	<13'	Yes	Good tree	Workable	X
136	Union	median	Flowering cherry	6	3	Poor	Trunk wounds; dieback.	Median, wide	<13'	No	Poor tree	Workable	X
137	Union	median	Flowering cherry	7	1	Poor	All but dead.	Median, wide	<13'	No	Poor tree	Workable	X-poor cond

## NOTE

In Alternative 4, all trees to remain can be pruned successfully to clear the OCS. Trees #112 & #137 should be removed due to poor condition.



## TREE REPLACEMENT ESTIMATES BY BLOCK

### Van Ness Corridor BRT Project

BMS Design Group with Hortscience, November 2, 2012

Updated by SFCTA, April 5, 2013

### Median Trees

LPA	# Trees to Remain	# Trees Replaced	Total
Block 1: Mission-Market			0
Block 2: Market-Fell			0
Block 3: Fell-Hayes		10	10
Block 4: Hayes-Grove	2	7	9
Block 5: Grove-McAllister*	2	6	8
Block 6: McAllister-Golden Gate			0
Block 7: Golden Gate-Turk	1	9	10
Block 8: Turk-Eddy			0
Block 9: Eddy-Ellis			0
Block 10: Ellis-O'Farrell	2	4	6
Block 11: O'Farrell-Geary**			0
Block 12: Geary-Post		2	2
Block 13: Post-Sutter	2	5	7
Block 14: Sutter-Bush			0
Block 15: Bush-Pine		10	10
Block 16: Pine-California	1	3	4
Block 17: California-Sacramento		10	10
Block 18: Sacramento-Clay			0
Block 19: Clay-Washington		8	8
Block 20: Washington-Jackson	1	9	10
Block 21: Jackson-Pacific			0
Block 22: Pacific-Broadway		2	2
Block 23: Broadway-Vallejo			0
Block 24: Vallejo-Green			0
Block 25: Green-Union			0
Block 26: Union-Filbert		1	1
Block 27: Filbert-Greenwich	1	9	10
Block 28: Greenwich-Lombard			0
<b>TOTAL EXISTING TREES</b>	<b>12</b>	<b>95</b>	<b>107</b>



## TREE REPLACEMENT ESTIMATES BY BLOCK

### Van Ness Corridor BRT Project

BMS Design Group with Hortscience, November 2, 2012

Updated by SFCTA, April 5, 2013

#### Median Trees

	# Trees to Remain	# Trees Replaced	Total
<b>ALTERNATIVE 2</b>			
Block 1: Mission-Market			0
Block 2: Market-Fell		13	13
Block 3: Fell-Hayes			0
Block 4: Hayes-Grove	2		2
Block 5: Grove-McAllister*	6	2	8
Block 6: McAllister-Golden Gate	3	6	9
Block 7: Golden Gate-Turk	6		6
Block 8: Turk-Eddy	4	1	5
Block 9: Eddy-Ellis	1	9	10
Block 10: Ellis-O'Farrell	4	3	7
Block 11: O'Farrell-Geary**	1	9	10
Block 12: Geary-Post	2	7	9
Block 13: Post-Sutter	3	4	7
Block 14: Sutter-Bush	4	2	6
Block 15: Bush-Pine	6		6
Block 16: Pine-California	4	1	5
Block 17: California-Sacramento		10	10
Block 18: Sacramento-Clay	6		6
Block 19: Clay-Washington	2	6	8
Block 20: Washington-Jackson	1	9	10
Block 21: Jackson-Pacific	2	6	8
Block 22: Pacific-Broadway	5	1	6
Block 23: Broadway-Vallejo	6		6
Block 24: Vallejo-Green	3	6	9
Block 25: Green-Union	4		4
Block 26: Union-Filbert	6		6
Block 27: Filbert-Greenwich	1	8	9
Block 28: Greenwich-Lombard			0
<b>TOTAL EXISTING TREES</b>	82	103	185



## TREE REPLACEMENT ESTIMATES BY BLOCK

### Van Ness Corridor BRT Project

BMS Design Group with Hortscience, November 2, 2012

Updated by SFCTA, April 5, 2013

#### Median Trees

ALTERNATIVE 3	# Trees to Remain	# Trees Replaced		Total
		West	East	
Block 1: Mission-Market				0
Block 2: Market-Fell			6	6
Block 3: Fell-Hayes				0
Block 4: Hayes-Grove			6	6
Block 5: Grove-McAllister*		17		17
Block 6: McAllister-Golden Gate			10	10
Block 7: Golden Gate-Turk				0
Block 8: Turk-Eddy			10	10
Block 9: Eddy-Ellis			4	4
Block 10: Ellis-O'Farrell			10	10
Block 11: O'Farrell-Geary**				0
Block 12: Geary-Post			10	10
Block 13: Post-Sutter			10	10
Block 14: Sutter-Bush			4	4
Block 15: Bush-Pine				0
Block 16: Pine-California			10	10
Block 17: California-Sacramento		4		4
Block 18: Sacramento-Clay			4	4
Block 19: Clay-Washington			10	10
Block 20: Washington-Jackson			10	10
Block 21: Jackson-Pacific		4	3	7
Block 22: Pacific-Broadway			10	10
Block 23: Broadway-Vallejo		10		10
Block 24: Vallejo-Green		4		4
Block 25: Green-Union			4	4
Block 26: Union-Filbert			3	3
Block 27: Filbert-Greenwich				0
Block 28: Greenwich-Lombard				0
<b>TOTAL EXISTING TREES</b>	<b>0</b>	<b>39</b>	<b>124</b>	<b>163</b>



## TREE REPLACEMENT ESTIMATES BY BLOCK

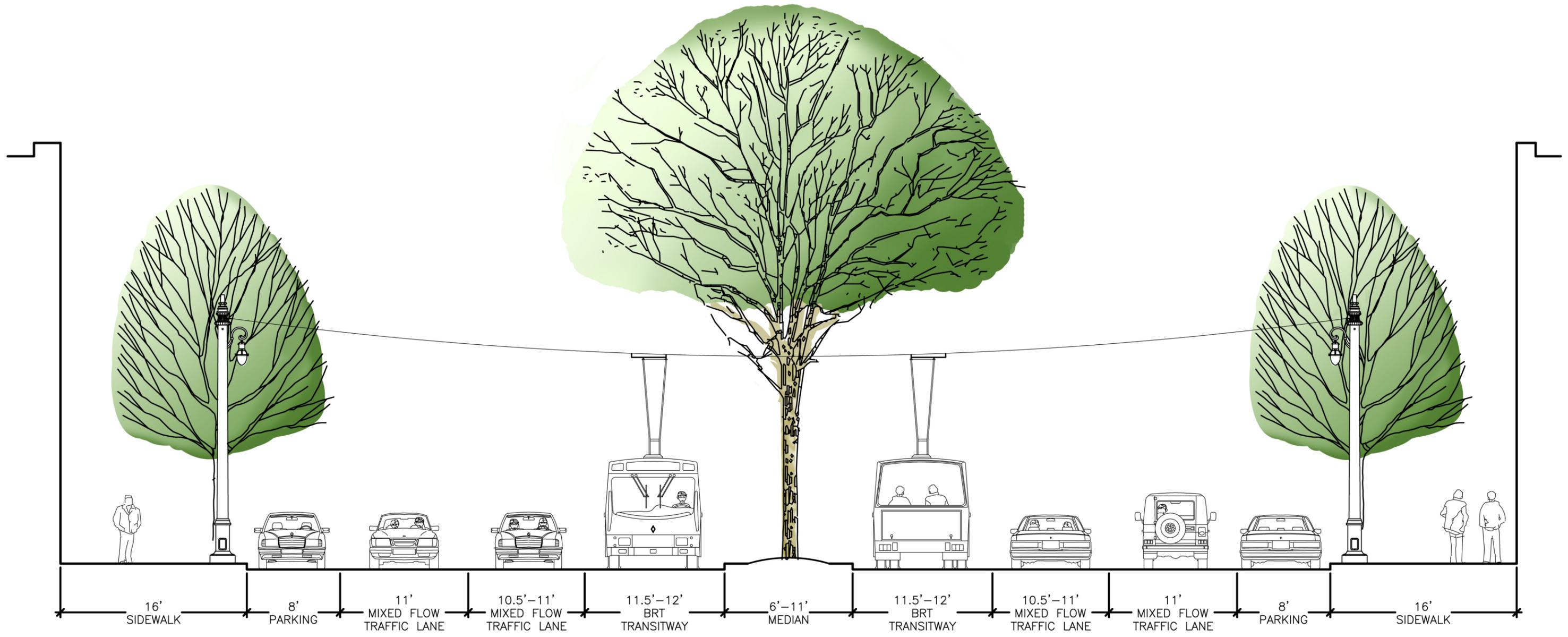
### Van Ness Corridor BRT Project

BMS Design Group with Hortscience, November 2, 2012

Updated by SFCTA, April 5, 2013

### Median Trees

	# Trees to Remain	# Trees Replaced	Total
<b>ALTERNATIVE 4</b>			
Block 1: Mission-Market			0
Block 2: Market-Fell		7	7
Block 3: Fell-Hayes			0
Block 4: Hayes-Grove			0
Block 5: Grove-McAllister*	4	6	10
Block 6: McAllister-Golden Gate	3	6	9
Block 7: Golden Gate-Turk	1	9	10
Block 8: Turk-Eddy	1	1	2
Block 9: Eddy-Ellis	0	10	10
Block 10: Ellis-O'Farrell	4	3	7
Block 11: O'Farrell-Geary**			0
Block 12: Geary-Post	2	7	9
Block 13: Post-Sutter	0	4	4
Block 14: Sutter-Bush	2	1	3
Block 15: Bush-Pine	1	9	10
Block 16: Pine-California	4	2	6
Block 17: California-Sacramento		4	4
Block 18: Sacramento-Clay	2	0	2
Block 19: Clay-Washington	2	6	8
Block 20: Washington-Jackson	1	9	10
Block 21: Jackson-Pacific			0
Block 22: Pacific-Broadway	4	1	5
Block 23: Broadway-Vallejo		10	10
Block 24: Vallejo-Green	3	6	9
Block 25: Green-Union	1	3	4
Block 26: Union-Filbert	2	0	2
Block 27: Filbert-Greenwich	1	9	10
Block 28: Greenwich-Lombard			0
<b>TOTAL EXISTING TREES</b>	<b>38</b>	<b>113</b>	<b>151</b>

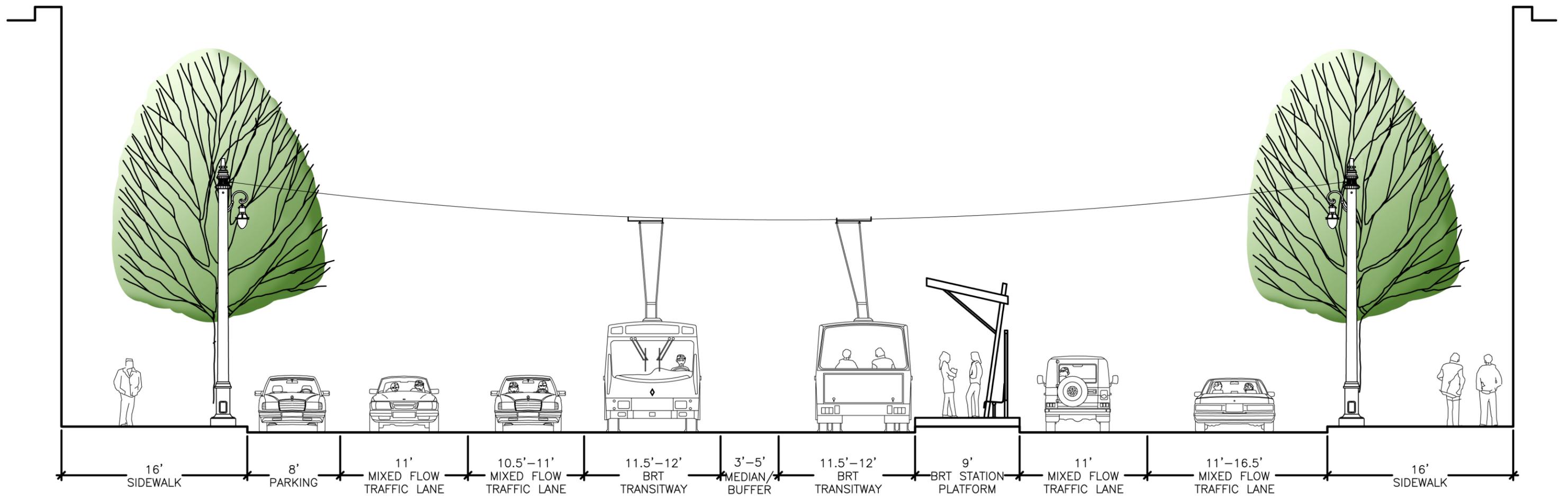


April 10, 2013

**LPA - BLOCK WITHOUT BRT STATION**  
 Center Lane BRT with Right-Side Boarding and Single Median

**VAN NESS AVENUE**  
**BUS RAPID TRANSIT STUDY**  
 SAN FRANCISCO, CALIFORNIA



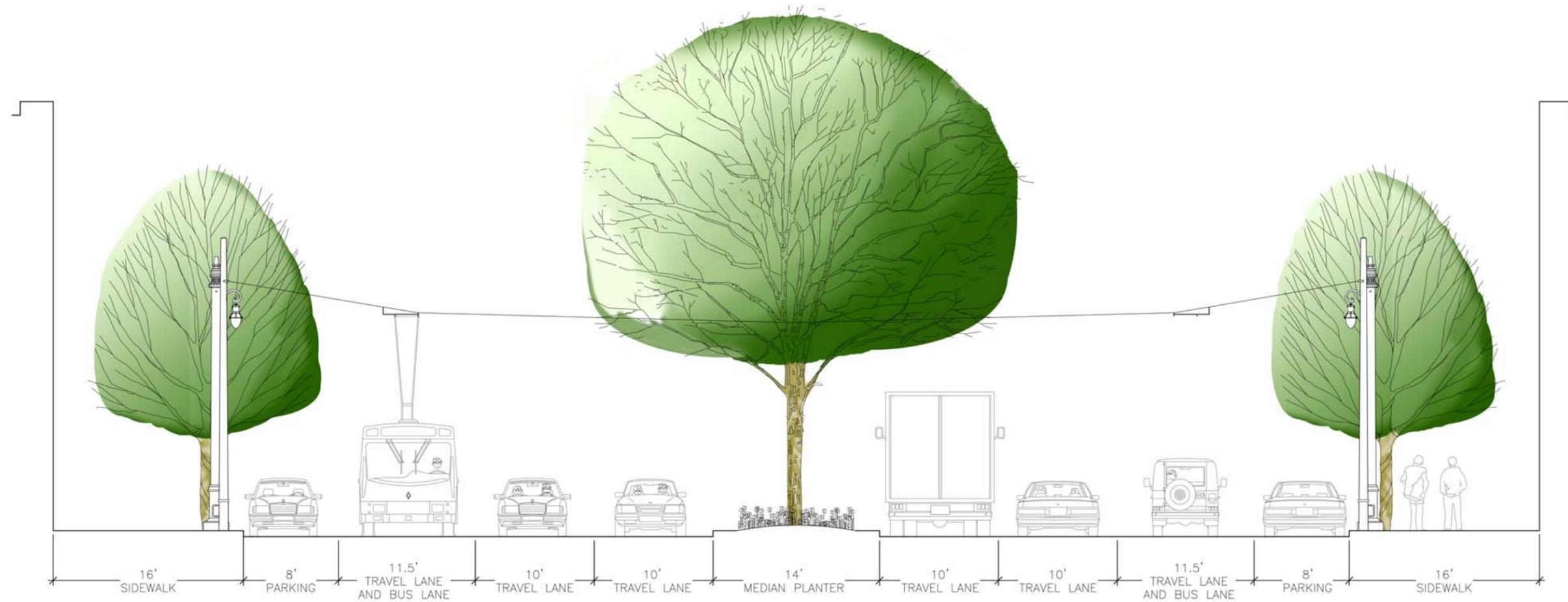


April 10, 2013

**LPA - BLOCK WITH BRT STATION**  
Center Lane BRT with Right-Side Boarding and Single Median

**VAN NESS AVENUE**  
**BUS RAPID TRANSIT STUDY**  
SAN FRANCISCO, CALIFORNIA





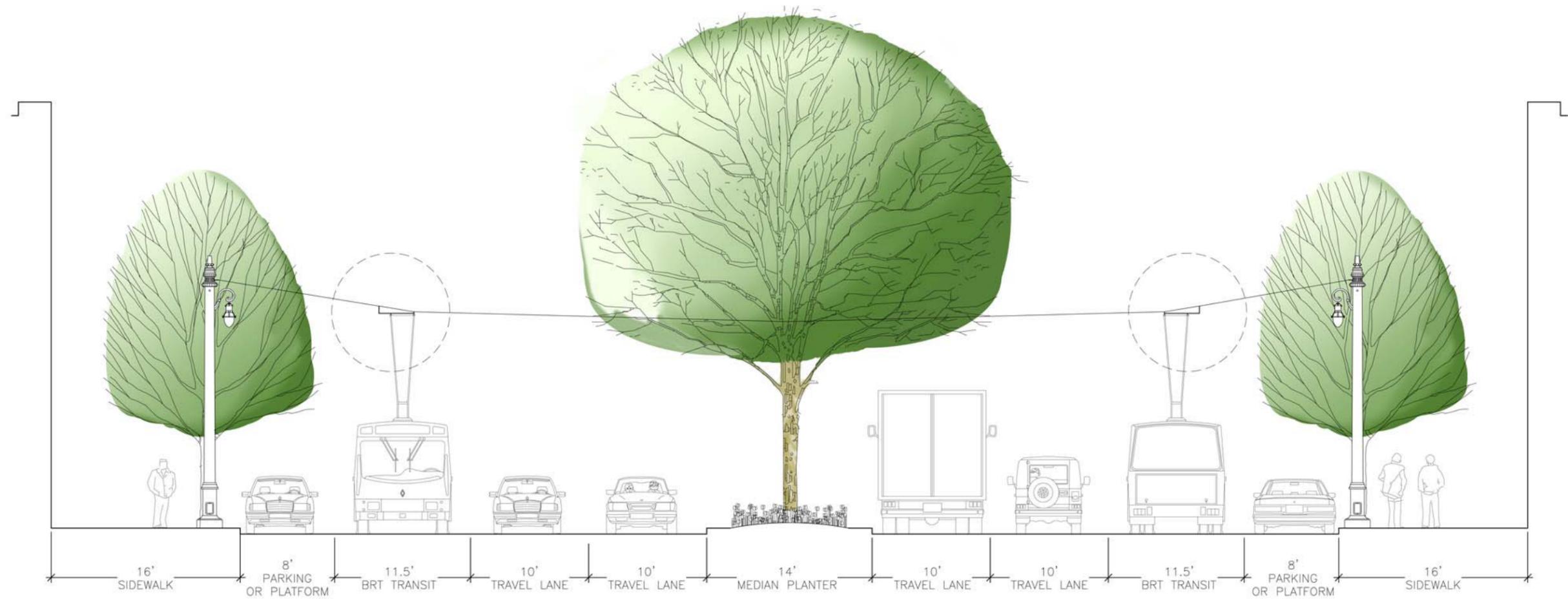
February 12, 2009

EXISTING CONDITION

**VAN NESS AVENUE  
BUS RAPID TRANSIT STUDY**  
SAN FRANCISCO, CALIFORNIA

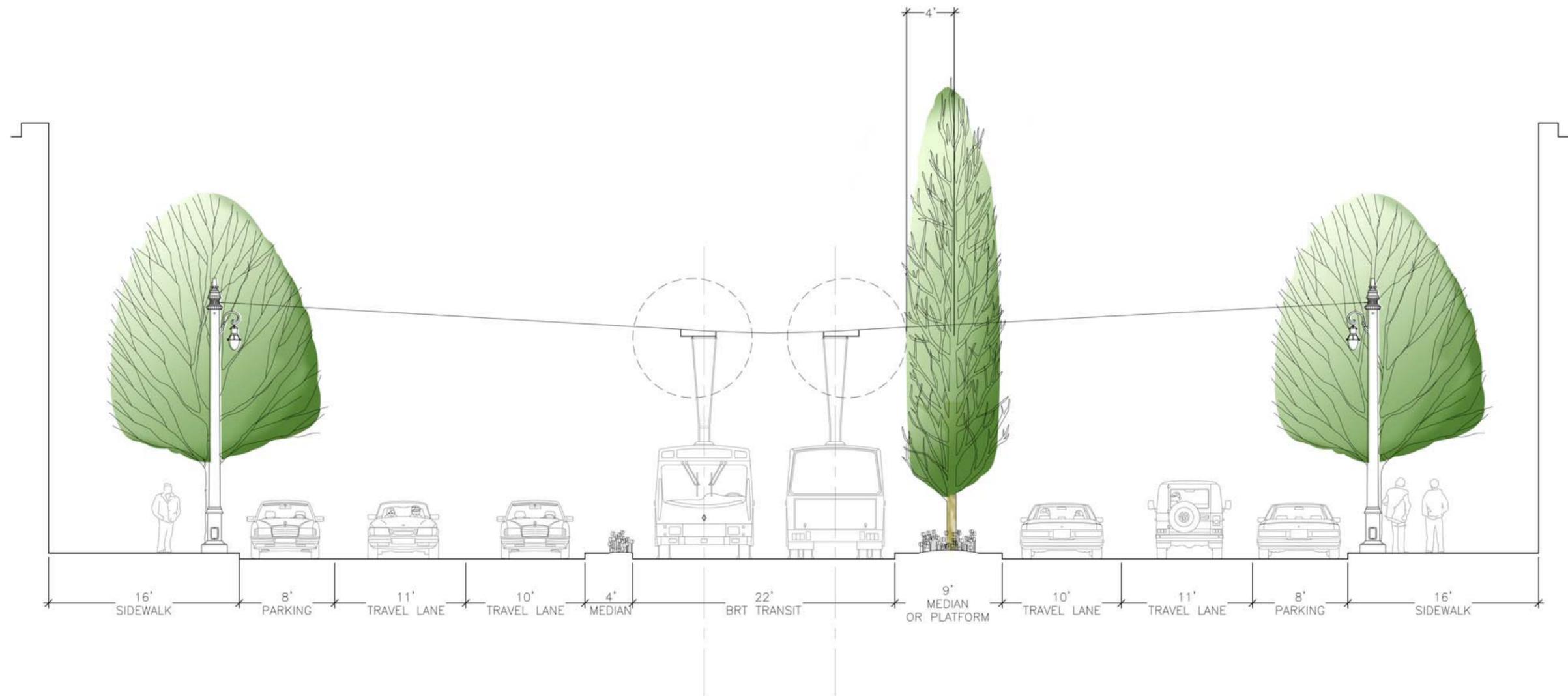


Reduced Scale: 1 inch = 10 feet



ALTERNATIVE 2  
 SIDE LANE BRT  
 LANDSCAPE CROSS SECTION A

**VAN NESS AVENUE  
 BUS RAPID TRANSIT STUDY  
 SAN FRANCISCO, CALIFORNIA**



ALTERNATIVE 3A - NARROW TREES  
 CENTER LANE BRT WITH SIDE LOADING PLATFORMS  
 LANDSCAPE CROSS SECTION

**VAN NESS AVENUE**  
**BUS RAPID TRANSIT STUDY**  
 SAN FRANCISCO, CALIFORNIA



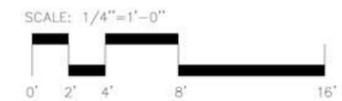
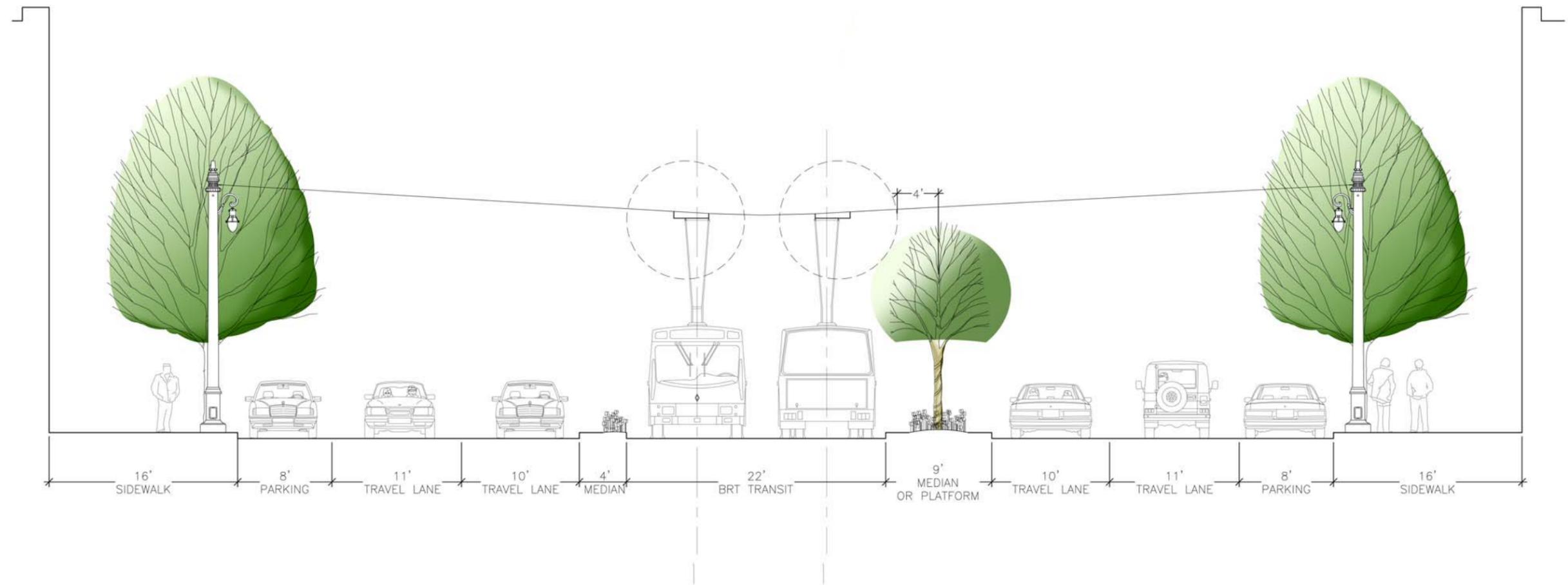
February 17, 2009

**PARSONS**

LEVY DESIGN PARTNERS  
 LEVY DESIGN PARTNERS  
 LEVY DESIGN PARTNERS

**BMS**  
 DESIGN GROUP

Reduced Scale: 1 inch = 10 feet



February 12, 2009

ALTERNATIVE 3B - LOW TREES  
 CENTER LANE BRT WITH SIDE LOADING PLATFORMS  
 LANDSCAPE CROSS SECTION

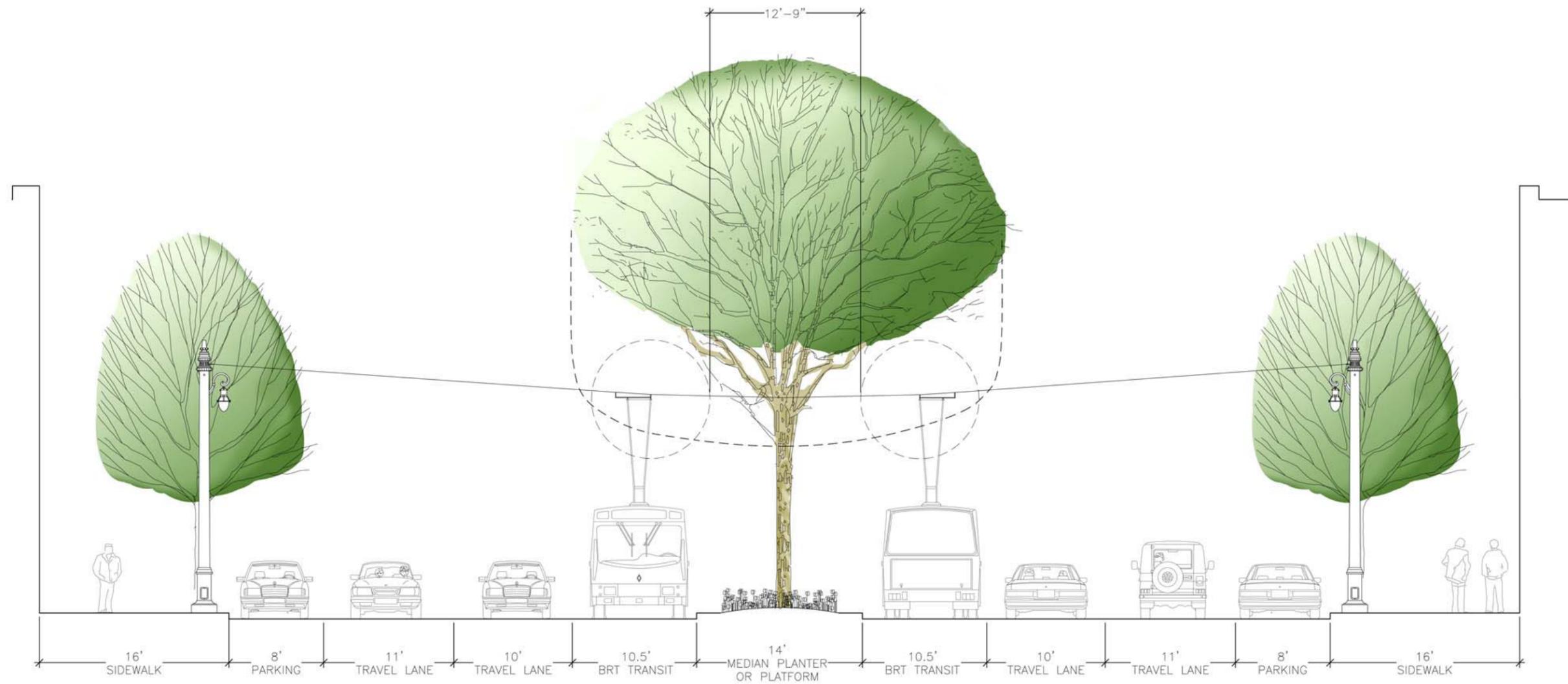
**VAN NESS AVENUE  
 BUS RAPID TRANSIT STUDY**  
 SAN FRANCISCO, CALIFORNIA

**PARSONS**

LEVY DESIGN PARTNERS  
 400 South Park  
 San Francisco, CA 94107

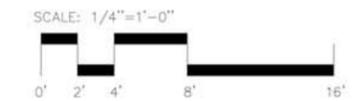
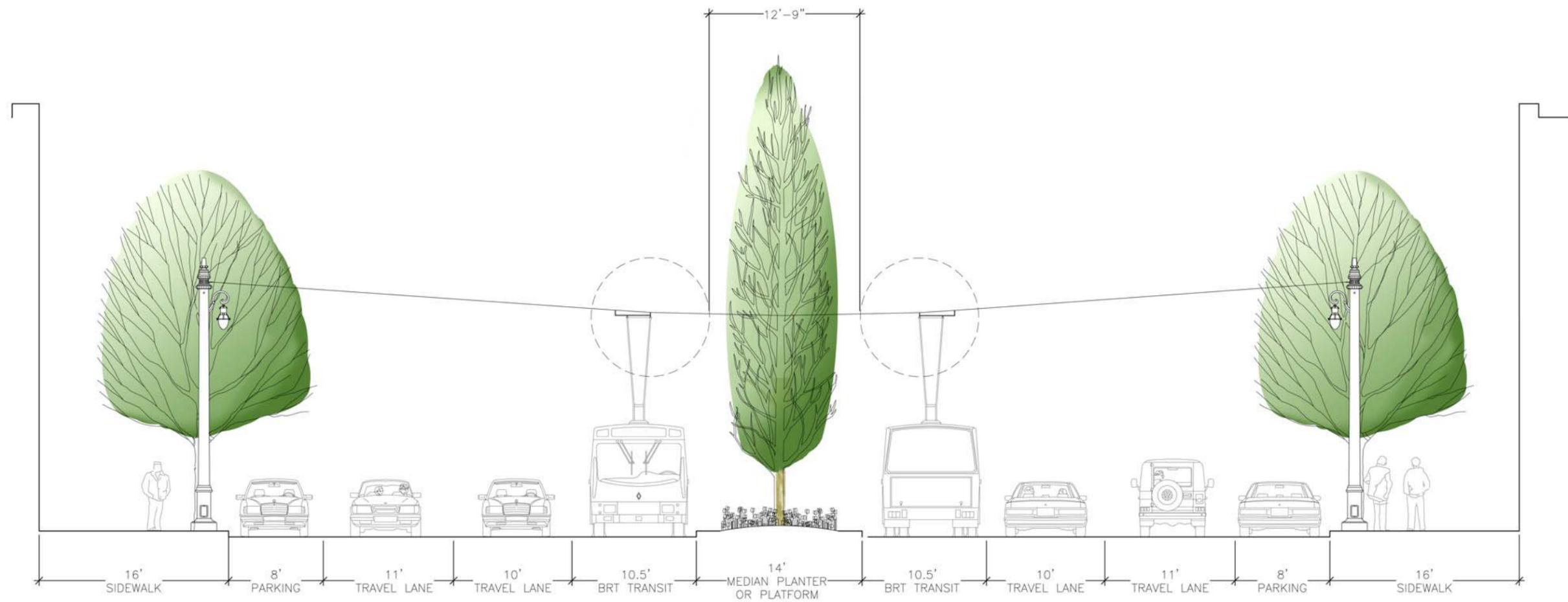
**BMS**  
 DESIGN GROUP

Reduced Scale: 1 inch = 10 feet



ALTERNATIVE 4A - EXISTING TREES, TRIMMED  
 CENTER LANE BRT WITH CENTER LOADING PLATFORMS  
 LANDSCAPE CROSS SECTION

**VAN NESS AVENUE**  
**BUS RAPID TRANSIT STUDY**  
 SAN FRANCISCO, CALIFORNIA



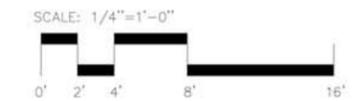
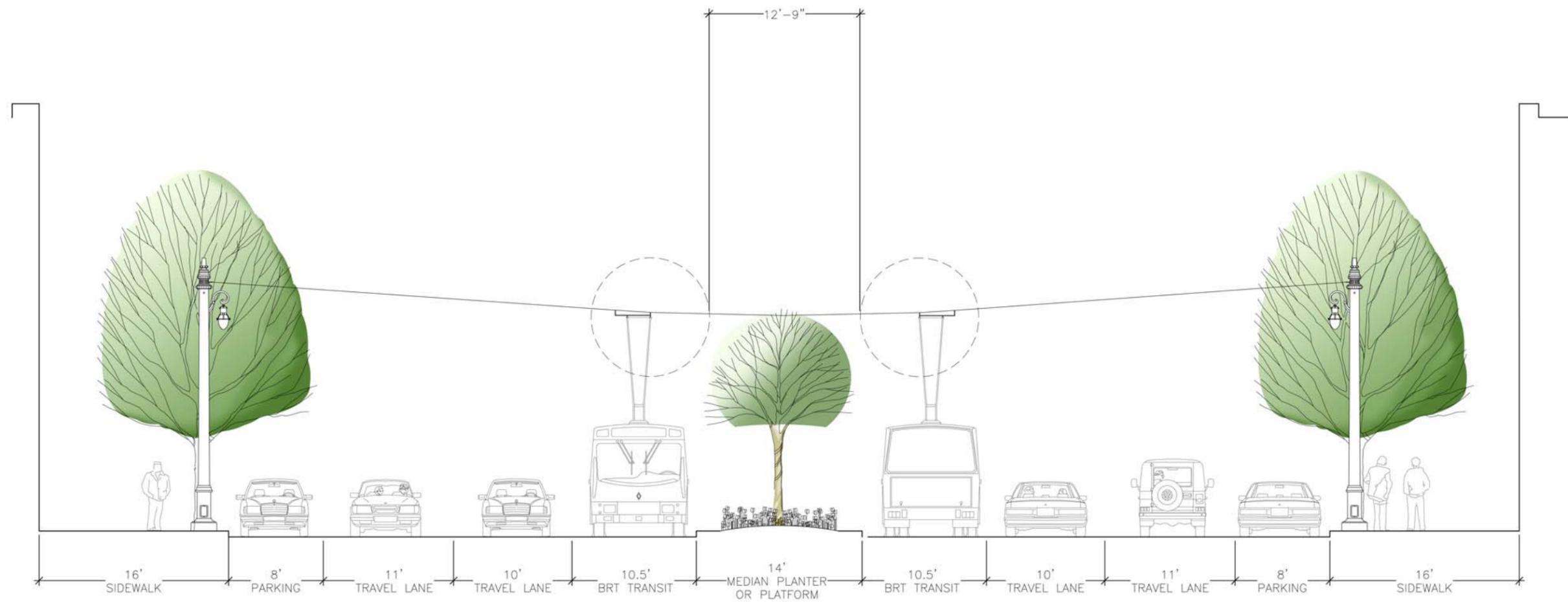
February 12, 2009

ALTERNATIVE 4B - NARROW TREES  
 CENTER LANE BRT WITH CENTER LOADING PLATFORMS  
 LANDSCAPE CROSS SECTION

**VAN NESS AVENUE  
 BUS RAPID TRANSIT STUDY  
 SAN FRANCISCO, CALIFORNIA**



Reduced Scale: 1 inch = 10 feet



February 12, 2009

ALTERNATIVE 4C - LOW TREES  
 CENTER LANE BRT WITH CENTER LOADING PLATFORMS  
 LANDSCAPE CROSS SECTION

**VAN NESS AVENUE  
 BUS RAPID TRANSIT STUDY  
 SAN FRANCISCO, CALIFORNIA**



Reduced Scale: 1 inch = 10 feet