



MEMORANDUM

To: Andrew Lee
 Parisi Transportation Consulting
 1936 University Avenue, Suite 250
 Berkeley, CA 94704

Date: May 8, 2019
 From: John Gibbs, WRT
 Rivka Weinstock, WRT

Ref. No.: 8135

Project: Alameda Complete Streets

Pages: 7

Re: Otis Drive Tree Placement

This memo summarizes WRT's preliminary review of species and locations for new trees on Otis Drive as part of the mobility enhancement project. This is a preliminary assessment, and we recommend additional assessment of existing and proposed trees in partnership with the City of Alameda and residents of Otis Drive.

Street trees are proposed for the existing 21 vacant tree wells along Otis Drive. Attached is a plan diagram showing the locations of these 21 tree wells (indicated as blue dots), with species recommendations for each location. Trees are highly valuable to urban neighborhoods, as they perform a multitude of environmental, social and economic services, including absorbing carbon and pollutants from the atmosphere, reducing urban heat island effect, enhancing water infiltration, providing wildlife habitat, helping to boost property values, and providing shade and improved street character, among others.¹

WRT reviewed the Master Street Tree Plan list and Alameda Point's 'Site A' Tree List from City arborists, went to the site, observed tree pit sizes, noted what tree species seem to be doing well in the current conditions, and discussed these observations with the City of Alameda staff, including the City's arborist.

With this understanding, and given projected future conditions of the site, namely drought and increased salinity due to sea level rise, WRT recommends revising the Master Street Tree Plan list to remove *Tilia tomentosa* and *Pyrus c. "Aristocrat"*, and replacing them with *Lophostemon confertus*, *Melaleuca quinquenervia*, and *Hymenosporum flavum*, as well as *Koeleruteria elegans* ssp. *Formosana*, *Parrotia*

¹ Landscape Architecture Foundation. Landscape Performance Series Fast Fact Library [Web log post]. Retrieved May 17, 2019, from <https://www.landscapperformance.org/fast-fact-library>



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persica, and Tipuana tipu, consistent with Alameda Point's 'Site A' Trees List. Therefore, the revised preliminary recommended species list for the Otis Drive Corridor is as follows: (see photos of tree species on pages 3-6 of this memo.)

<i>Botanical Name</i>	<i>Common Name</i>	<i>Size</i>
Quercus agrifolia	Coast Live Oak	Large
Corymbia ficifolia*	Red Flowering Gum	Large
Hymenosporum flavum	Sweetshade	Small
Koelreuteria elegans ssp. Formosana **	Henry Flame Tree	Small-Medium
Lophostemon confertus	Brisbane Box	Medium
Melaleuca quinquenervia	Cajeput Tree	Medium
Metrosideros excelsa*	New Zealand Christmas Tree	Small
Parrotia persica**	Persian Ironwood	Small
Tipuana tipu**	Tipu Tree	Medium-Large

*From Master Street Tree Plan List

**From Alameda Point's Site A Tree List

Additionally, the existing Pyrus trees along Otis Drive (see photo on page 7 of this memo) are a short lived species that is performing poorly in this location due to climate suitability and future soil conditions. They look to be over 5 years old, at their mature size, and they do not seem to be doing well in current conditions. Community members have also brought up this concern. While there was discussion of waiting to see if some of them would recover from the drought, our recommendation remains to plan for the removal and replacement of the majority of them as part of an overall tree planting project. A preliminary count indicates that there are 25 Pyrus trees on site. A further assessment of each tree should be conducted to decide which ones should be removed.

Finally, for the long-term solution roundabout, we recommend planting a Quercus agrifolia, raised up above the street level by berming up the soil in the roundabout (see photos of tree species on page 8 of this memo), as a native species is desired by community stakeholders.



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Recommended Tree Species Example Photos



Corymbia ficifolia



Hymenosporum flavum



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Koelreuteria elegans ssp. formosana



Lophosterum confertus



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Melaleuca quinquenervia



Metrosideros excelsa



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Parrotia persica



Tipuana tipu



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Existing Pyrus tree example photo



Example of existing Pyrus tree to be removed and replaced



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Recommended Tree species for the long-term solution roundabout

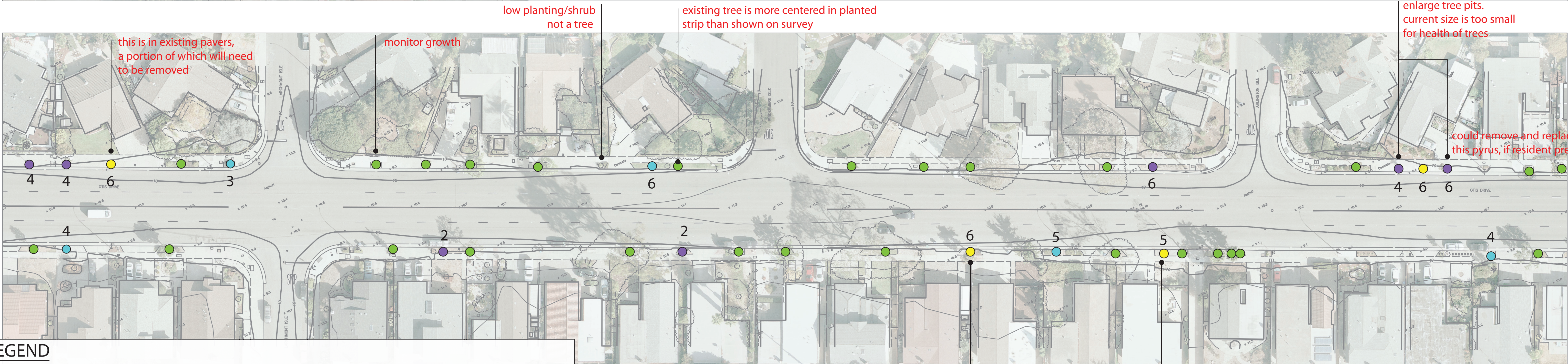
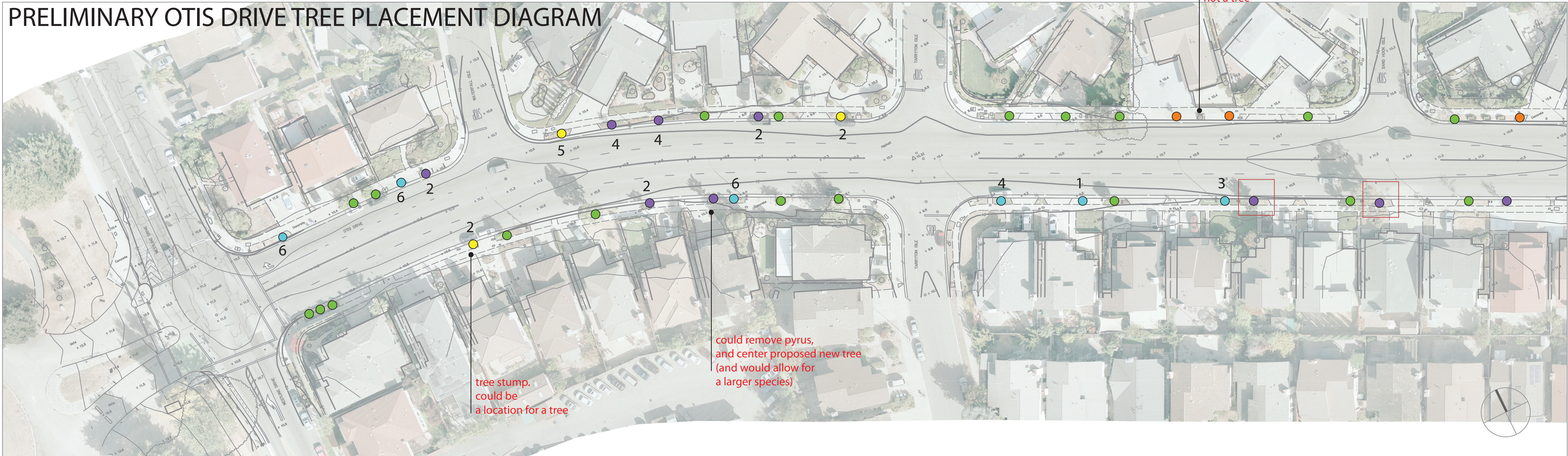


Quercus agrifolia



Example of Quercus agrifolia (in winter) in a roundabout

PRELIMINARY OTIS DRIVE TREE PLACEMENT DIAGRAM



LEGEND

- Proposed tree locations in existing empty tree wells
- Existing tree to remain
- Additional potential tree placement site
- Consider removal and replacement
- Pyrus tree to consider removal and replacement

- 1 *Corymbia ficifolia*
- 2 *Hymenosporum flavum*
- 3 *Koelreuteria elegans* ssp. *formosana*
- 4 *Lophosterum confertus*
- 5 *Melaleuca quinquenervia*
- 6 *Metrosideros excelsa*

- 7 *Parrotia persica*
- 8 *Tipuana tipu*

Parisi
TRANSPORTATION CONSULTING

1750 Bridgeway, Suite B208
Sausalito, CA 94965
(415) 649-6000

DRAWN: _____

DESIGNED: _____

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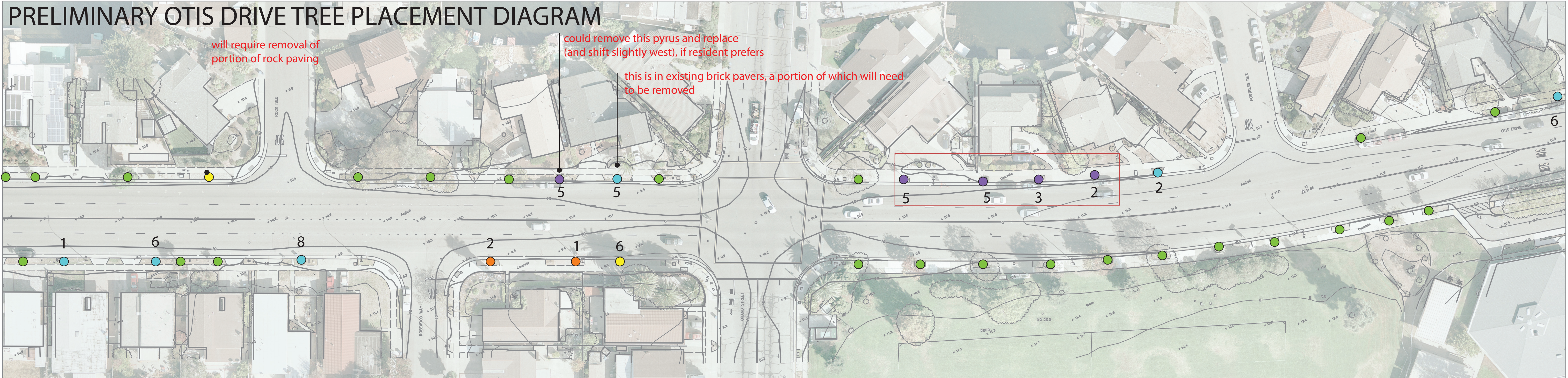
APPROVED: _____



CITY OF ALAMEDA
OTIS DRIVE AND TRAFFIC CALMING AND SAFETY IMPROVEMENTS
SURVEY BASE 1

REVISIONS		DATE	SCALE
<div><div>5</div><div>4</div><div>3</div><div>2</div><div>1</div></div>		01/03/2019	1" = 40'
		PTC PROJECT NO.	18044
		DRAWING	L-1
		SHEET NO.	1 OF 3
NO.	DESCRIPTION		

PRELIMINARY OTIS DRIVE TREE PLACEMENT DIAGRAM



LEGEND

- Proposed tree locations in existing empty tree wells
- Existing tree to remain
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- 1 *Corymbia ficifolia*
- 2 *Hymenosporum flavum*
- 3 *Koelreuteria elegans* ssp. *formosana*
- 4 *Lophosterium confertus*
- 5 *Melaleuca quinquenervia*
- 6 *Metrosideros excelsa*

- 7 *Parrotia persica*
- 8 *Tipuana tipu*

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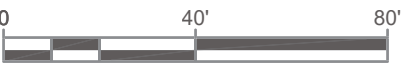
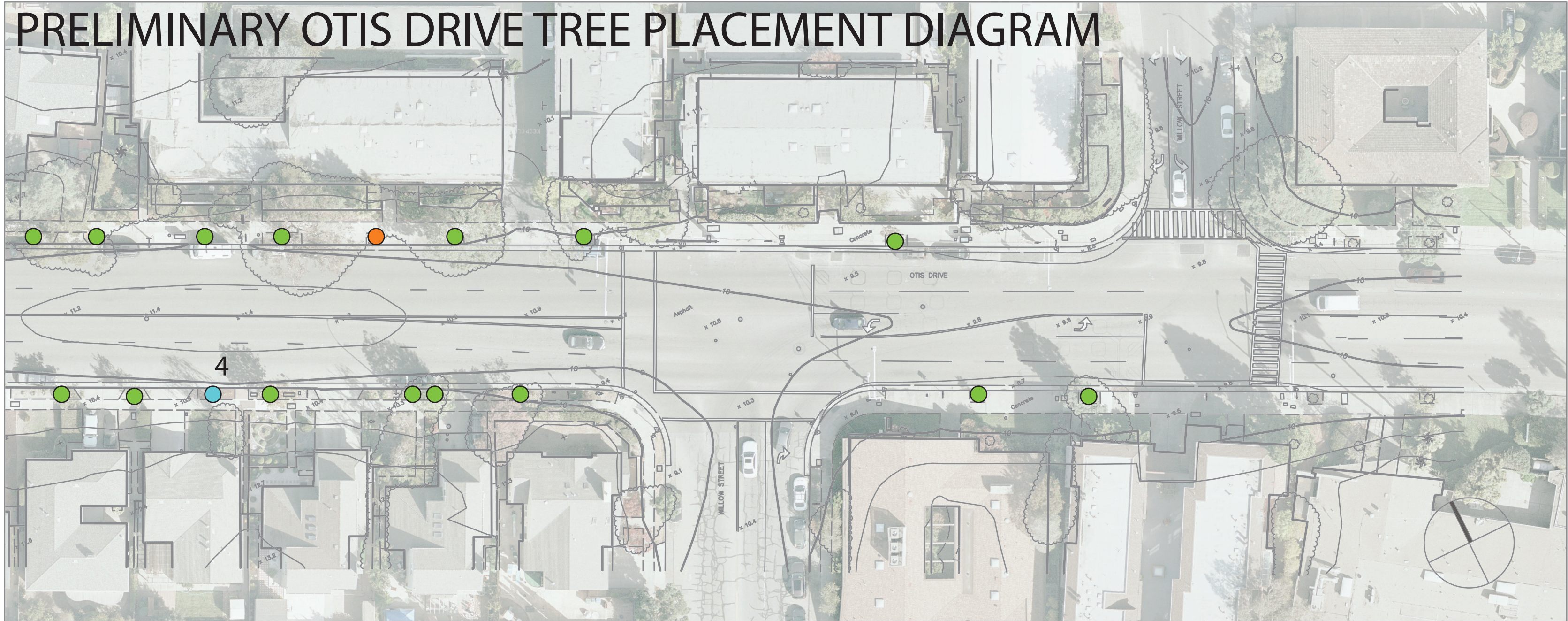
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CITY OF ALAMEDA
OTIS DRIVE AND TRAFFIC CALMING AND SAFETY IMPROVEMENTS
SURVEY BASE 2

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		PTC PROJECT NO.	18044
4		DRAWING	L-2
3		SHEET NO.	2 OF 3
2			
1			
NO.	DESCRIPTION		

PRELIMINARY OTIS DRIVE TREE PLACEMENT DIAGRAM



LEGEND		
Proposed tree locations in existing empty tree wells	1 <i>Corymbia ficifolia</i>	7 <i>Parrotia persica</i>
Existing tree to remain	2 <i>Hymenosporum flavum</i>	8 <i>Tipuana tipu</i>
Additional potential tree placement site	3 <i>Koelreuteria elegans ssp. formosana</i>	
Consider removal and replacement	4 <i>Lophosterum confertus</i>	
Pyrus tree to consider removal and replacement	5 <i>Melaleuca quinquenervia</i>	
	6 <i>Metrosideros excelsa</i>	

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CITY OF ALAMEDA
OTIS DRIVE AND TRAFFIC CALMING AND SAFETY IMPROVEMENTS
SURVEY BASE 3

REVISIONS		DATE	SCALE
		01/10/2019	1" = 40'
		PTC PROJECT NO.	18044
		DRAWING	L-3
		SHEET NO.	3 OF 3
NO.	DESCRIPTION		