Town of Yucca Valley
PLANNING COMMISSION STAFF REPORT

To: Honorable Chair and Planning Commissioners
From: Evan Willoughby, Planning Technician
Jared Jerome, Associate Planner
Date: February 16, 2022
Meeting Date: February 22, 2022

Subject: Western Joshua Tree (WJT) Permit 037-22, Onaga Trail (Acoma Trail to Palm Avenue), Yucca Valley CA.; Transplant One (1) Western Joshua Tree, Remove One (1) Dead Western Joshua Tree

Recommendation:
That the Planning Commission approves the application for WJT 037-22, transplant of one (1) Western Joshua Tree and the removal of one (1) dead Western Joshua Tree, based upon Ordinance 291 Section 9.56.090 that the Western Joshua Trees are within 10 feet of ground disturbing activities, Section 9.56.070(A) that all necessary submittal materials have been submitted, Section 9.56.100 that to the maximum extent feasible the project proponent shall relocate all Western Joshua Trees that cannot be avoided, and Section 9.56.120 that all necessary mitigation fees have been paid by the applicant.

Prior Review
There has been no prior review of this matter.

Executive Summary
Native plant permit applications are acted upon by the Planning Commission for review and action at this time.

Order of Procedure
Request Staff Report
Request Public Comment
Council Discussion/Questions of Staff
Motion/Second
Discussion on Motion
Call the Question

Discussion

Applicant: Town of Yucca Valley
Address: Onaga Trail (Acoma Trail to Palm Avenue)

APN: (North Side - APN: 0587-054-09 through 0587-054-01, 0587-044-14 through 0587-044-08, 0587-081-86, 0587-342-12 through 0587-342-08)

(South Side - APN: 0587-031-11 through 0587-031-20, 0587-021-21, 0587-021-25, 0587-021-26, 0587-011-24, 0587-011-29, 0587-011-30, 0587-011-06)

Zoning: Residential, Single-Family (R-S-5)
Residential, Single-Family (R-S-2)
Residential, Multi-Family (R-M-10)

Western Joshua Tree Transplant

An application has been filed with the Town for a public works project to construct Onaga Trail Improvements. As part of that process, an application for the transplant of regulated Western Joshua Trees has been submitted. Only the Western Joshua Tree application is before the Commission; not the construction permits for the project.

Section 9.56.070 of Ordinance 291 requires photos, descriptions of the trees, and a letter from the applicant's arborist; which are attached to this report. The arborist has determined the health of the tree being proposed for transplant, WJT #19, is great. The proposed relocation site is on the Town's property of Essig Park near the intersection at Joshua Lane and Hardesty. The arborist has determined the health of the tree being proposed for removal, WJT #15, is dead.

Section 9.56.090 states:
The project proponent shall avoid all ground-disturbing activities within 10 feet of any western Joshua tree, unless those activities will be temporary, will not physically impact the western Joshua tree or its root system, and will not disturb the soil to a depth of greater than twelve inches.

Section 9.56.100 requires "*…to the maximum extent feasible, the project proponent shall relocate all western Joshua trees that cannot be avoided to another location on the project site,*" and that all relocations of western Joshua trees which are one meter or greater in height be completed by a desert native plant specialist.

Section 9.56.120 details the mitigation fees required for the transplant or removal of western Joshua trees. The applicant has provided the Town payment of these mitigation fees.

Alternatives

Staff recommend no alternative actions. The application is consistent with the Town's adopted standards.

Fiscal Impact

NA

Attachments:

WJT 037-22 Onaga Trail Improvements
ORD 291 Joshua Trees
9.60 Permit Procedures

Western Joshua Tree Application

Date Received _____
Case WJT 037-22
By _____

General Information

APPLICANT Town of Yucca Valley Phone 760-369-6579

Mailing Address 58928 Business Center Drive Email abaldizzone@yucca-valley.org

City Yucca Valley, CA 92284 State CA Zip 92284

PROPERTY OWNER _____ Phone _____

Mailing Address _____ Email _____

City _____ State _____ Zip _____

Address/Location of Plants Onaga Trail - Acoma Trail to Palm Avenue (North Side - APN: 0587-054-09 through 0587-054-01, 0587-044-14 through 0587-044-08, 0587-081-86, 0587-342-12 through 0587-342-08) (South Side - APN: 0587-031-11 through 0587-031-20, 0587-021-21, 0587-021-25, 0587-021-26, 0587-011-24, 0587-011-29, 0587-011-30, 0587-011-06)

Desert Native Plant Specialist _____

Project Information

TYPE OF PLANT	# OF PLANTS BEING DESTROYED	# OF PLANTS BEING TRANSPLANTED	# OF PLANTS BEING TRIMMED	APPLICATION FEE	HEIGHT	DIAMETER	MITIGATION FEE FOR REMOVAL
WESTERN JOSHUA TREE (Yucca brevifolia)		1					$175.00

Reason for removal Transplanting One (1) WJT #19, Destroying (1) Dead WJT #15 Within right of way

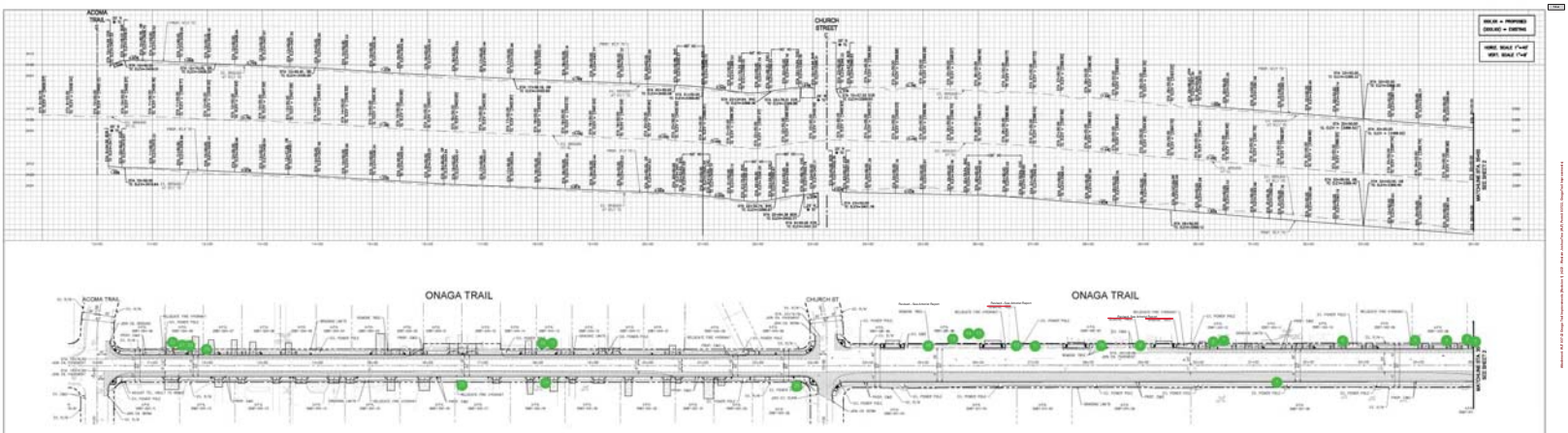
Property owner signature _____ Date _____

Staff Use Only

Issuance Date: _____ Issued By: _____

Approved as shown on plot plan _____ photos _____ Total Fees: _____

Denied _____ Reason for Denial _____



Town of Yucca Valley

Onaga Trail Pedestrian Improvement Project

Preliminary Design Sheet 1

KOA PLANNING | ENGINEERING | CONSTRUCTION MANAGEMENT

Western Joshua Tree Take Permit Submittal Requirements

Please note - The census shall tag and count all western Joshua trees on the project site and classify them by size class.

1. The name of the desert native plant specialist who conducted the census and the employer of the desert native plant specialist.

   Name: Marinna Wagner
   Employer Name: Marinna Wagner

2. The name of the desert native plant specialist who will relocate Western Joshua trees, if applicable, and the employer of the desert native plant specialist.

   Name: To be determined and contracted by the Town of Yucca Valley
   Employer Name: Unknown; TBD

3. The date of the census. 1/11/22

4. The date or dates of the proposed relocation of western Joshua trees, if applicable.

   Unknown; TBD

5. A map of the project site that depicts the location of the proposed single-family residence, accessory structure, or public works project; the number and location of all Western Joshua trees on the project site; and if applicable, the proposed Western Joshua trees for removal, or the proposed placement of each relocated Western Joshua tree (Note: this can be included on the 24”x36” plans).

   See notes below

6. Photographs of each western Joshua tree on the project site, including a **visual representation** (e.g., tape measure, yardstick, etc.) of the scale of the height of each tree.

   See report

7. Aerial imagery of the site in sufficient detail to identify the property and the Western Joshua trees that are on the site and are a part of the application submitted.

   See map

8. Narrative written descriptions of each western Joshua tree, its diameter, height, existing health condition and any other information deemed necessary.

See report

9. New construction of single-family residential units as well as accessory structures shall require the submittal of all information on plans measuring approximately 24" x 36", shall be legibly drawn and shall accurately reflect aerial photography and satellite imagery generally available for the subject property.

a. All property lines, dimensions, and existing structures, if any, shall be depicted on plans submitted with the application materials.
b. Property owners name, mailing address, phone number, and email address.
c. Applicant's name, mailing address, phone number and email address.
d. Assessor parcel number(s), address, and general location of the property for which the application is submitted.
e. General Plan designation and zoning designation of the subject project site.

Census Table

Tag #	Height	Diameter	Health (Dead, Poor, Ok, Good, Great)	Transplant, Destroy, or Protect in Place	**Size Class** (Place an "X" in the corresponding column)		
					Class 1/A (Less than 1 Meter)	**Class 2/B** (Between 1 Meter and 4 Meters)	**Class 3/C** (4 Meters or Taller)
1				NO TREE HERE			
2	2.5 M	2.1 M	GREAT	PROTECT *		X	
3	20 CM	20 CM	GREAT	PROTECT *	X		
4	4.5 M	6 M	GREAT	PROTECT *			X
5	4.5 M	6 M	GOOD	PROTECT *			X
6	3.8 M	2.5 M	GREAT	PROTECT		X	
7	4.5 M	6 M	GREAT	PROTECT *			X
8	4.2 M	3.5 M	GREAT	PROTECT *			X
9	4.1 M	2 M	GOOD	PROTECT ***			X
10	2.4 M	1 M	POOR	PROTECT ***		X	
11	3.9 M	2 M	GREAT	PROTECT ***		X	
12	6 M	2.5 M	GREAT	PROTECT ***			X
13	1 M	1 M	GREAT	PROTECT *	X		
14	80 CM	1 M	GREAT	PROTECT *	X		
15	NA	NA	DEAD	DESTROY			
16	6 M	3 M	OK	PROTECT ***			X
17	1 M	2 M	GREAT	PROTECT	X		

18	1.5 M	2.5 M	GREAT	PROTECT	X		
19	2.5 M	2.5 M	GREAT	TRANSPLANT **		X	
20	4 M	3 M	GREAT	PROTECT *			X
21	3 M	3 M	GREAT	PROTECT		X	
22	3 M	3 M	GREAT	PROTECT		X	
23	1 M	60 CM	GREAT	PROTECT *	X		
24	4 M	4 M	GREAT	PROTECT *			X
25	4 M	4 M	OK	PROTECT *			X

* Protect, these trees fall outside the ROW, but possibly within 10 ft of work, it is recommended that the design be modified where feasible to protect the trees in place.

** Transplant is recommended given current plans.

*** It is recommended to protect trees in place and to route sidewalk around the trees given minimal grade changes in these locations.

If design modifications are not feasible, survivability of larger trees may be better if protected in place with less than 10 ft of clearance than attempting transplant. See notes regarding individual trees in the report.

Transplant Relocation Notes (Item #5):

The recommendations for determining potential transplant locations include the following:

1. Placed at least 25 ft from any existing or proposed structure or improvement,
2. Placed at least 10 ft from any other western Joshua Tree,
3. For large trees that must be moved with equipment, equipment accessibility will likely be required, and such activity should not cause any damage to habitat and any other long-lived plants.
4. In order to take into account the Town's future plans, potential locations should be determined by the Town and reviewed by the Native Plant Specialist.
5. Prior to finalizing locations, simple percolation tests are required to determine if the soil is free-draining, uncompacted enough to dig deep, and suitable for transplant.
6. It is recommended that the contractors visit the site to confirm transplant feasibility and methods and budgetary estimates. Town will contact and contract with contractors for relocation of individual trees.

February 2, 2022

ARMANDO BALDIZZONE
TOWN OF YUCCA VALLEY
PUBLIC WORKS DEPARTMENT
58928 BUSINESS CENTER DRIVE
YUCCA VALLEY, CA 92284
P: 760.369.6579 EXT. 307
ABALDIZZONE@YUCCA-VALLEY.ORG

NATIVE PLANT INVENTORY REPORT
SITE MAP WITH PHOTOGRAPHIC CENSUS

This report is for the Onaga Trail Pedestrian Improvements in the Town of Yucca Valley from Acoma Trail to Grand Ave. A field census and native plant inventory was performed on January 11, 2022 and January 24, 2022 to evaluate the right-of-way (ROW) for Joshua Trees (*Yucca brevifolia* ssp. *brevifolia*), a candidate species under the California Endangered Species Act (CESA), effective October 9, 2020.

This project site is suburban residential with smaller parcel sizes from Acoma Trail to Church St. and larger parcel sizes from Church St. to Grand St. Soil conditions appear mostly sandy, however are heavily compacted around road, driveway, and building areas. Driveway aprons show some signs of erosion and run off that may or may not impact the amount of available water for the trees. The Joshua Trees throughout these several blocks are relatively large and mostly healthy. There are many trees on private property are of significant size and in great condition. It appears overall climate, soil, and available water conditions are hospitable to the Joshua Tree.

All locations are approximate. For exact locations, please consult the Town surveyor.

The primarily goal is to avoid the take of western Joshua Trees on the project site. It is our recommendation that site work be modified to protect the trees wherever feasible. The following notes apply:

1. Trees 2, 3, 4, 5, 6, 7, 8, 9, 13, 14, 17, 18, 20, 21, 22, 23, 24, and 25 fall outside of the ROW and it is recommended that the design be modified where feasible to protect trees in place on private property. (*See Note A*)
2. For tree 19 transplant is recommended given current plans.
3. For trees 9, 10, 11, 12, and 16 it is recommended to route the sidewalk around the tree to protect the tree in place given the minimal grade changes in these locations.
4. Trees 10 and 15 are dead or dying.

A: If design modifications are not feasible, survivability of larger trees may be better if protected in place with less than 10 ft of clearance than attempting transplant. See notes regarding individual trees.

Other Notes:

* Protect, these trees fall outside the ROW, but possibly within 10 ft of work, it is recommended that the design be modified where feasible to protect the trees in place.
** Transplant is recommended given current plans.
*** It is recommended to protect trees in place and to route sidewalk around the trees given minimal grade changes in these locations.

Transplant Notes:

The best time of year to transplant all *Yucca* species is when temperatures are warm and they are growing. Ideally, transplanting occurs from mid-March through the end of October, while avoiding the heat of the summer whenever possible. Transplants should be given regular water (1-2x a week) during warm and dry periods for up to 3 years depending on the individual plant's growth habit and the overall weather conditions. If this cannot be provided through the installation of a drip irrigation system, trucked-in and hand watering can suffice. Some of these large trees will require extensive wooden framing and equipment to transplant. Following transplant of large trees, staking and guying systems will likely be needed support the tall trees. It may be more suitable to box some of the large trees to transplant them more successfully, however this method is time consuming, often requires a crane, and can be expensive. Alternatively a tree spade or other heavy equipment proposed by knowledgeable and experienced contractors will work if appropriate for the tree. Please consult with competent contractors to determine the best method for each tree.

In general there is limited to no scientific data regarding the transplant survivability of large trees (3-6+ m). There is some research that indicates trees within the 1-2.5 m range and with limited branches have a good survival rate if the soil and irrigation conditions are adequate (Bainbridge 2007, Franson 1995). Some research in Joshua Tree National Park suggests that small transplanted and nursery-grown trees have a relatively high survival rate if given regular irrigation through the establishment period (Wagner 2018).

Based on first hand accounts and available scientific research, it is recommended that large trees be protected in place and work is modified to protect them. We don't have first hand experience with relocating trees larger than 2.5 meters tall (8 ft). It is our understanding that transplanting large trees can be difficult, expensive, and short-term success (1-3 years) is likely low. Long-term success (3-10+ years) is even less well known, in general if the tree is growing and leaves are in good condition by the third year it will likely survive, but accounts of trees dying somewhat suddenly following transplant has occurred. It is not surprising that a reduced lifespan following transplant may occur. With larger trees, it is recommended to avoid overwatering and they should be relocated only a short distance to prevent extensive damage to the root system during transport. The irrigation is crucial and can be tricky as overwatering and underwatering can easily cause death. The trees and weather should be monitored closely. Lastly, it has been recommended to us that the trees should be kept in the same cardinal orientation when relocated whenever feasible.

Small trees (less than 1 meter) may require caging to protect them from herbivore damage (Wagner 2018, Wallace 1980). The survival rate of pups that have been separated from the mother plant is unknown and accounts are inconsistent from field contractors. Given this, it is always best to try to keep the pups intact and adjoined to the main root system whenever feasible. It is our experience that small pups tend to struggle to survive when separated. This can make transplanting quite difficult especially when there is more than one pup because the root system is very fragile and digging and equipment can easily damage this root connection.

For some of the larger trees, where design modifications to achieve 10 ft of distance are not feasible, survivability may be higher if the tree is protected in place with less than 10 ft of clearance. We feel this can be true in situations where more than approximately 65-70% of the root system can remain undisturbed. We recommend avoiding cutting roots larger than 1.5 inch in diameter whenever feasible. Consideration should be taken to how these roots are supporting the overall plant stability and nutrient uptake. Joshua Tree roots are very fragile especially when environmental conditions have been dry for several months. Sometimes, depending on the type of work, it is possible to dig around large roots by hand and leave the roots in place. Sulfur should be applied on cut roots to prevent the introduction of bacteria or other infections.

In addition, modifications to the flowering and seeding patterns of transplanted trees is unknown and may impact the species seed bank long term. We highly recommend that through yearly reports, data on the survival following the transplant of trees be recorded and further analyzed for future knowledge and better management practices.

The recommendations for determining potential transplant locations include the following:

1. Placed at least 25 ft from any existing or proposed structure or improvement,
2. Placed at least 10 ft from any other western Joshua Tree,
3. For large trees that must be moved with equipment, equipment accessibility will likely be required, and such activity should not cause any damage to habitat and any other long-lived plants.
4. In order to take into account the Town's future plans, potential locations should be determined by the Town and reviewed by the Native Plant Specialist.
5. Prior to finalizing locations, simple percolation tests are required to determine if the soil is free-draining, uncompacted enough to dig deep, and suitable for transplant.
6. It is recommended that the contractors visit the site to confirm transplant feasibility and methods and budgetary estimates. Town will contact and contract with contractors for relocation of individual trees.

Works Cited:

BAINBRIDGE, D. 2007. A *Guide for Desert and Dryland Restoration: A New Hope for Arid Lands.* Washington D. C.: Island Press.

FRANSON, R. L. 1995. Health of plants salvaged for revegetation at a Mojave Desert gold 4505 mine: year two. p. INT-GTR-315 in B. A. Roundy, E. D. McArthur, J. S. Haley, 4506 and D. K. Mann, editors. *Proceedings: Wildland Shrub and Arid Land Restoration 4507 Symposium.* U.S. Department of Agriculture, Forest Service, Intermountain 4508 Research Station, Ogden, UT. Available at: 4509 https://www.fs.usda.gov/treesearch/pubs/34717 (accessed December 18, 2020).

WAGNER, M. 2018. 'Factors Influencing Revegetation Efforts in the Mojave Desert: Field Studies and Meta-Analysis of the Morongo Basin and Joshua Tree National Park,' MLA Thesis, California Polytechnic University Pomona, CA. Pomona, CA.

WALLACE, A., E. M. ROMNEY, and R. B. HUNTER. 1980. The challenge of a desert: 5143 revegetation of disturbed desert lands. *Great Basin Naturalist Memoirs.* 4:216–5144 225.

CONDUCTED BY: MARINNA WAGNER
WE-13354A
ISA CERTIFIED ARBORIST

SPECIES: NA
PLANT NUMBER: 1

STATUS (TRANSPLANT, DESTROY, PROTECT): NA - Tree marked on engineer's plans as remove, but the tree no longer exists.
ROW: within ROW
CLASS SIZE: Unknown
SIZE (HEIGHT X WIDTH): Unknown
SITE CONDITIONS & ASPECT: Sandy and southeast facing (lifted slightly due to berm)

OTHER NOTES & RECOMMENDATIONS: On the plans there is a Joshua Tree identified at APN 0587-011-06 adjacent to a power pole and across the street from APN 0587-342-12. Given the location on the plans, this is our best guess as to where there might have been a tree. There is a significant hole next to the *Senegalia greggii* and *Cylindropuntia echinocarpa*. There is no tree present to date. There is some Joshua Tree branches and thatch on the ground behind the shrub, but due to the decay it doesn't appear to be recent damage. In Google Earth imagery from 2019 shows what appears to be a Joshua Tree. Activity and cause of death is unknown.

Images: Jan 2022
Left: Hole
Above: Some old Joshua Tree branches and thatch on the ground, they do not appear to be of recent death.

Google Earth Dec 2019

Google Earth June 2021

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 2

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect *outside of ROW on private property
ROW: Outside of ROW by approximately 5 ft
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 2.5 m x 2.1 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and southeast facing
LEAN: None VIGOR: High FOLIAGE: Good condition CROWN DENSITY: Dense
NUMBER OF LIVE BRANCHES: 18 MAX BRANCH DIAMETER: 45 cm
NUMBER OF DEAD BRANCHES: 3
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 6 MAX HEIGHT OF TALLEST PUP: 2 m
DECAY OR DAMAGE: None
ROOT FLARE CONDITION: Ok. Do not bury root flare when conducting work.
DRIP LINE RADIUS: 1 m or 3.25 ft
TRANSPLANT FEASIBILITY NOTES: It is recommended to modify the design to leave this plant in place. Given the quantity of the pups, it will be a challenge to transplant them all together. Given the overall size, transplant is feasible, but not ideal.
OTHER NOTES & RECOMMENDATIONS: Although work may occur less than 10 ft from the plant, the depth is not significant (perhaps less than 1 ft) and work should not affect the overall health of the plant if it occurs less than 10 ft. Keep work off the drip line if feasible.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 3

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect* outside of ROW on private property
CLASS SIZE: A
ROW: Outside of ROW by approximately 1-3 ft and 8 ft from the existing curb
SIZE (HEIGHT X WIDTH): 20 cm x 20 cm (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and southeast facing
LEAN: None VIGOR: Normal FOLIAGE: Good, slightly yellow CROWN DENSITY: NA
NUMBER OF LIVE BRANCHES: 1 MAX BRANCH DIAMETER: 20 cm
NUMBER OF DEAD BRANCHES: 0
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: None currently, leaves show some signs of sunburn, but it is slight.
ROOT FLARE CONDITION: Ok, but slightly buried likely due to natural erosion.
DRIP LINE RADIUS: 20 cm
TRANSPLANT FEASIBILITY NOTES: If possible to modify work to leave in place that would be ideal. If necessary this small tree could be transplanted away from the driveway apron and street curb.
OTHER NOTES & RECOMMENDATIONS: We are considering this a separate plant because it is more than 1 meter away from the main trunk, however it is not impossible that it is connected to the larger plant. If is connected, it may struggle to survive transplant, especially if it was depending on the larger root system, but this is unknown based on visual observation. Given size it is also recommended to cage the small plant to protect it from herbivores if relocated.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 4

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect *outside of ROW on private property
CLASS SIZE: C
ROW: Outside of ROW by approximately 5 ft
SIZE (HEIGHT X WIDTH): 4.5 m x 6 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and southeast facing
LEAN: None VIGOR: High FOLIAGE: Great, long CROWN DENSITY: Dense
NUMBER OF LIVE BRANCHES: 60 +/- MAX BRANCH DIAMETER: 80 cm
NUMBER OF DEAD BRANCHES: 3 approximately
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 23 +/- MAX HEIGHT OF TALLEST PUP: 4.5 m
DECAY OR DAMAGE: Nothing significant
ROOT FLARE CONDITION: Mounded up. Given mound it is best not to excavate significantly here.
DRIP LINE RADIUS: 2.5 m or approximately 8 ft
TRANSPLANT FEASIBILITY NOTES: This plant is too large and complicated to transplant. Based on the site visit with the Inspector, it seems like work can stay off this tree by 10 ft from the center. It is recommended that the design be modified to stay off of the tree by at least 8 ft especially if the depth of the cut is more than 1 ft.
OTHER NOTES & RECOMMENDATIONS: Several of these pups are further than 1 meter from the main trunk, and could be considered separate plants, however given how the pups are arranged radially it is more likely they are all connected. It is possible that a pup may need to be trimmed back for public safety. Please consult and expert in tree pruning.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 5

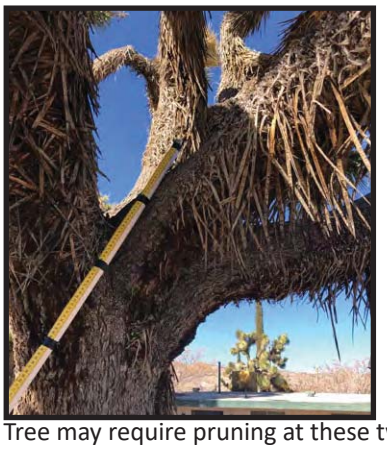
STATUS (TRANSPLANT, DESTROY, PROTECT): Protect *outside of ROW on private property
CLASS SIZE: B
ROW: Outside of ROW by approximately 5.5 ft
SIZE (HEIGHT X WIDTH): 4.5 m x 6 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and southeast facing
LEAN: S VIGOR: Normal FOLIAGE: Ok, some stress CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 40 +/- MAX BRANCH DIAMETER: 60 cm
NUMBER OF DEAD BRANCHES: 8-9
MAJOR BRANCH FAILURES: 1
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 4
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Significant trunk damage at the base, likely mechanical and not recent.
ROOT FLARE CONDITION: Good
DRIP LINE RADIUS: 4 m or approx. 13 ft and drip line extends to the existing curb
TRANSPLANT FEASIBILITY NOTES: This tree is likely too large to move. It would be best to leave in place and work around it.
OTHER NOTES & RECOMMENDATIONS: Although the Town requires that work be 10 ft away from the center of the tree, based on the site visit with the Inspector, it appears work may occur close to 9 ft from the plant. Depending on the depth of work it is preferred to conduct grading within the dripline over attempting transplant of this tree. The tree can likely survive if minimal grading occurs adjacent to it and it has significantly less of a chance of surviving transplant to a new location given health and damages.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 6

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
ROW: Outside of ROW by approximately 3 ft (wall to stay in place on private property)
SIZE (HEIGHT X WIDTH): 3.8 m x 2.5 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and southeast facing
LEAN: SW VIGOR: Normal FOLIAGE: Good CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 5 MAX BRANCH DIAMETER: 60 cm
NUMBER OF DEAD BRANCHES: 0
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 1 MAX HEIGHT OF TALLEST PUP: 2 m
DECAY OR DAMAGE: None
ROOT FLARE CONDITION: Good
DRIP LINE RADIUS: 2.1 m or approx. 7 ft
TRANSPLANT FEASIBILITY NOTES: Although feasible, it would be best to leave the tree in place and work around it.
OTHER NOTES & RECOMMENDATIONS: The Town requires that work be 10 ft away from the center of the tree, based on the site visit with the Inspector, it appears that the edge of the sidewalk is approximately 2 meters (approx. 6.5 ft) from the edge of the drip line of this tree and the cut appears to be less than 12 inches. This distance should be plenty of space to work around the tree. The tree can likely survive if minimal grading occurs adjacent to it.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 7

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect *outside of ROW on private property
CLASS SIZE: C
ROW: Outside of ROW by approximately 5 ft
SIZE (HEIGHT X WIDTH): 4.5 m x 6 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and slightly north facing
LEAN: S VIGOR: High FOLIAGE: Good CROWN DENSITY: Dense
NUMBER OF LIVE BRANCHES: 50 +/- MAX BRANCH DIAMETER: 60 cm
NUMBER OF DEAD BRANCHES: 5
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Some thatch loss due to age
ROOT FLARE CONDITION: Good
DRIP LINE RADIUS: 3 m or 10 ft and extends to the existing curb
TRANSPLANT FEASIBILITY NOTES: Not recommended due to the size. This tree may be difficult to frame and keep branches from snapping while moving. Also the digging necessary to transplant this tree will likely cause damage to the root system of the adjacent tree #8.
OTHER NOTES & RECOMMENDATIONS: Although the Town requires that work be 10 ft away from the center of the tree, based on the site visit with the Inspector, it appears work may occur close to 9 ft from the plant. The depth of work appears to minimal and only a few inches and thus is preferred to conduct grading within the dripline over attempting transplant of this tree. The tree can likely survive if minimal grading occurs adjacent to it and it has less of a chance of surviving transplant to a new location. This plant flowered recently and is contributing to the seed bank.



Tree may require pruning at these two joints for public safety to be determined in the field.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 8

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect *outside of ROW on private property
CLASS SIZE: C
ROW: Outside of ROW by approximately 3.5 ft
SIZE (HEIGHT X WIDTH): 4.2 m x 3.5 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and slightly north facing
LEAN: S VIGOR: High FOLIAGE: Good CROWN DENSITY: Dense
NUMBER OF LIVE BRANCHES: 16-20 MAX BRANCH DIAMETER: 60 cm
NUMBER OF DEAD BRANCHES: 7
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: None
ROOT FLARE CONDITION: None
DRIP LINE RADIUS: 2 m or 6.5 ft
TRANSPLANT FEASIBILITY NOTES: Feasible, although not recommended. This tree may be difficult to frame and keep branches from snapping while moving. Also the digging necessary to transplant this tree will likely cause damage to the root system of the adjacent tree #7 and the two trees behind it.
OTHER NOTES & RECOMMENDATIONS: Although the Town requires that work be 10 ft away from the center of the tree, based on the site visit with the Inspector, it appears work may occur close to 7 ft from the plant. Since the drip line extends approximately 6.5 ft and the depth of work may only be a few inches, it is preferred to conduct grading within 7 ft of the plant over attempting transplant of this tree. The tree can likely survive if minimal grading occurs adjacent to it and it has less of a chance of surviving transplant to a new location. This plant flowered recently and is contributing to the seed bank.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 9

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect ***Route sidewalk around tree
CLASS SIZE: C
ROW: within ROW and 4 ft from the center of the trunk to the existing curb
SIZE (HEIGHT X WIDTH): 4.1 m x 2 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and south facing
LEAN: NA VIGOR: Normal FOLIAGE: Good, long CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 7 MAX BRANCH DIAMETER: 80 cm
NUMBER OF DEAD BRANCHES: 5
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 4
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: None, exposed.
ROOT FLARE CONDITION: Good
DRIP LINE RADIUS: 1 m or approx 3.25 ft
TRANSPLANT FEASIBILITY NOTES: Feasible to transplant if necessary although this is a tall plant, the branching is condensed. Given curb and road work, it is unknown if previous ground work cut roots on the south side.
OTHER NOTES & RECOMMENDATIONS: Within the ROW it may be difficult to modify work and maintain 10 ft of distance from the tree. If it is possible to maintain distance as grading may only be about 1 ft deep, it is recommended to leave the plant in place as it is likely to survive minimal damage to a portion of the root system. Joshua Trees in general do not transplant well and whenever it is possible to modify work, the survival of the tree long-term will be higher than transplanting it to a new location.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 10

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect ***Route sidewalk around tree
CLASS SIZE: B
ROW: within ROW
SIZE (HEIGHT X WIDTH): 2.4 m x 1 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and south facing
LEAN: NA VIGOR: Sparse FOLIAGE: Mostly dead, some green on 1 branch
NUMBER OF LIVE BRANCHES: 2 MAX BRANCH DIAMETER: 50 cm
NUMBER OF DEAD BRANCHES: 2
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1.5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Mechanical damage at base.
ROOT FLARE CONDITION: Poor condition and buried. There is a mechanical cut at the base of the tree likely from some form of tool.
DRIP LINE RADIUS: 1/2 m or approx 1.6 ft
TRANSPLANT FEASIBILITY NOTES: Will not survive transplant.
OTHER NOTES & RECOMMENDATIONS: This tree is on it's way out and will most likely not survive another year. The likely cause of death is the large cut at the base and the buried root flare, but it is unknown at this stage the true cause of decline. The tree is unstable and moves significantly when touched. Given curb and road work, it is unknown if previous ground work cut roots on the south side.

Image 1: Mechanical cut
Image 2: Some green leaves remain on 1 branch

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 11

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect ***Route sidewalk around tree
CLASS SIZE: B
ROW: within ROW and 4 ft from the center of the trunk to the existing curb
SIZE (HEIGHT X WIDTH): 3.9 m x 2 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and south facing
LEAN: S VIGOR: Normal FOLIAGE: Ok, short and damaged tips CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 20+/- MAX BRANCH DIAMETER: 60 cm
NUMBER OF DEAD BRANCHES: 2
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 9 MAX HEIGHT OF TALLEST PUP: 1.8 m
DECAY OR DAMAGE: None, exposed.
ROOT FLARE CONDITION: Good
DRIP LINE RADIUS: 1 m or approx 3.25 ft
TRANSPLANT FEASIBILITY NOTES: Feasible to transplant if necessary, however with this number of pups it may be challenging to keep them attached to the main trunk. It is recommended to transplant all pups with the main trunk without dividing them whenever possible, but that may not be the case with this tree.
OTHER NOTES & RECOMMENDATIONS: Within the ROW it may be difficult to modify work and maintain 10 ft of distance from the tree. Grading appears to be only a few inches and if work can stay off the drip line radius, it is recommended to leave the plant in place as it is likely to survive minimal damage to a portion of the root system. Joshua Trees in general do not transplant well and whenever it is possible to modify work, the survival of the tree long-term will be higher than transplanting it to a new location.

Images 1 &2: All pups within 1 meter of the main trunk
Image 3: Some damage to tips of leaves

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 12

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect ***Route sidwalk around tree
CLASS SIZE: C
ROW: within ROW Center of trunk is 4 ft from existing curb and 4' from the existing electrical pole
SIZE (HEIGHT X WIDTH): 6 m x 2.5 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and south facing
LEAN: S VIGOR: High FOLIAGE: Good, long CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 18 MAX BRANCH DIAMETER: 80 cm
NUMBER OF DEAD BRANCHES: 1
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 6 MAX HEIGHT OF TALLEST PUP: 1.8 m
DECAY OR DAMAGE: None, exposed.
ROOT FLARE CONDITION: Good
DRIP LINE RADIUS: 1.75 m or approx 5.75 ft
TRANSPLANT FEASIBILITY NOTES: Possible, but this tree is very tall, has quite a few pups, and it's proximity to the power pole may create a significant challenge for excavation and transplant. Given curb and road work, it is unknown if previous ground work cut roots on the south side.
OTHER NOTES & RECOMMENDATIONS: Within the ROW it may be difficult to modify work and maintain 10 ft of distance from the tree. Grading appears to be only a few inches and if work can stay off the drip line radius, it is recommended to leave the plant in place as it is likely to survive minimal damage to a portion of the root system. Joshua Trees in general do not transplant well and whenever it is possible to modify work, the survival of the tree long-term will be higher than transplanting it to a new location. Please consult with contractors to determine if this tree is possible to transplant with equipment given size and power lines.

All pups within 1 meter of the main trunk

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 13

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect *outside of ROW on private property
CLASS SIZE: A
ROW: Outside of ROW by approximately 10 ft
SIZE (HEIGHT X WIDTH): 1 m x 1 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and east facing
LEAN: NA VIGOR: Normal FOLIAGE: Ok, some spots CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 3 MAX BRANCH DIAMETER: 40 cm
NUMBER OF DEAD BRANCHES: 0
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: None
ROOT FLARE CONDITION: Good
DRIP LINE RADIUS: 1/2 m or 1.6 ft
TRANSPLANT FEASIBILITY NOTES: Feasible given size. However, #13 & #14 are difficult to determine if they are all pups from the dead trunk or if they are separate plants. They have been separated here because the tallest branch is more than 1 meter from the dead trunk and 1.2 meters from the tallest branch of #14, but it could be possible they are all connected as one plant. If they are all connected, transplant may be less successful if the root system is divided and the dead trunk's root system is significantly disturbed.
OTHER NOTES & RECOMMENDATIONS: Since these are outside of the ROW, it is best to leave in place and work around. Based on the plans and walk with the inspector it appears that grading is very minimal, perhaps only a few inches and work is approximately 2 meters from these plants, that should be plenty of room to stay off the drip line and not cause significant disturbance even if work occurs within 10 ft.

All pups within 1 meter of the main trunk

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 14

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect *outside of ROW on private property

CLASS SIZE: A
ROW: Outside of ROW by approximately 10 ft
SIZE (HEIGHT X WIDTH): 80 cm x 1m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and east facing
LEAN: NA VIGOR: Normal FOLIAGE: Ok, some spots CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 4 MAX BRANCH DIAMETER: 40 cm
NUMBER OF DEAD BRANCHES: 0
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: None
ROOT FLARE CONDITION: Good
DRIP LINE RADIUS: 1/2 m or 1.6 ft
TRANSPLANT FEASIBILITY NOTES: Feasible given size. However, #13 & #14 are difficult to determine if they are all pups from the dead trunk or if they are separate plants. They have been separated here because the tallest pup is more than 1 meter from the dead trunk and 1.2 meters from the tallest branch of #13. However, it could be possible they are all connected as one plant coming from the main dead trunk. If they are all connected transplant may be less successful if the root system is divided.
OTHER NOTES & RECOMMENDATIONS: Since these are outside of the ROW, it is best to leave in place and work around. Based on the plans and walk with the inspector it appears that grading is very minimal, perhaps only a few inches and work is approximately 1-2 meters from these plants, that should be plenty of room to stay off the drip line not cause significant disturbance even if work occurs within 10 ft.

All pups within 1 meter of the main trunk

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 15

STATUS (TRANSPLANT, DESTROY, PROTECT): Destroy
CLASS SIZE: NA
SIZE (HEIGHT X WIDTH): Unknown (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and southeast facing
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1
DECAY OR DAMAGE: Dead and decayed
TRANSPLANT FEASIBILITY NOTES: None
OTHER NOTES & RECOMMENDATIONS: This trunk appears to be a dead Joshua Tree based on the appearance of the fibers and the exterior woodiness. Time and cause of death was not recent as the trunk is quite decayed and remaining plant material no longer exists on site.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 16

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect ***Route sidewalk around the tree
ROW: Within ROW and center of trunk is 55 inches from the existing curb
CLASS SIZE: C
SIZE (HEIGHT X WIDTH): 6 m x 3 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and northeast facing
LEAN: None VIGOR: Normal FOLIAGE: Good CROWN DENSITY: NA
NUMBER OF LIVE BRANCHES: 20 +/- MAX BRANCH DIAMETER: 40 cm
NUMBER OF DEAD BRANCHES: 6
MAJOR BRANCH FAILURES: 2
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 4
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: NA
DECAY OR DAMAGE: Several large holes in trunk and at base of joints; also woodpecker damage.
ROOT FLARE CONDITION: Irregular root flare condition, this may decrease the stability of the tree.
DRIP LINE RADIUS: 1.5 m or approximately 5 ft
TRANSPLANT FEASIBILITY NOTES: Given height and damages, this may be a difficult tree to move and survival following transplant may be low. Consult with contractors if this is feasible with equipment and power lines.
OTHER NOTES & RECOMMENDATIONS: Given location and proposed depth of grading, it may be difficult to modify work and maintain 10 ft of distance from this tree. Ideally work can be modified to leave in place, but it could be possible that due to damages the tree may cause a public safety hazard over time.

Image 1: Holes at large branch joint
Image 2: Woodpecker damage and holes near base
Image 3: Crevasses at the base and irregular form

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 17 & 18

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect (outside of ROW on private property)
CLASS SIZE: B
ROW: Outside of ROW by approximately 8 ft
SIZE (HEIGHT X WIDTH): 1-1.5 m x 2-2.5 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and north facing
LEAN: E VIGOR: Normal FOLIAGE: Good CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: #17 has 11-12 & #18 has 8-10 MAX BRANCH DIAMETER: 40-50 cm
NUMBER OF DEAD BRANCHES: 4-5 on #17
MAJOR BRANCH FAILURES: 2-3 significant branch cuts
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
DECAY OR DAMAGE: Unknown from distance
ROOT FLARE CONDITION: Some erosion
DRIP LINE RADIUS: 2 m or 6.5 ft
TRANSPLANT FEASIBILITY NOTES: Not recommended
OTHER NOTES & RECOMMENDATIONS: This assessment is general and approximate. There are at least 2 lives trees here and perhaps 1 dead. These trees may fall close to 10 ft of work, but are likely outside of that distance. Maintain 10 ft of distance from these trees. The Inspector indicated the wall is to stay and grading appears to be only a few inches, so impact should be insignificant. It is recommended to not alter the drainage significantly as they depend on the run off.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 19

STATUS (TRANSPLANT, DESTROY, PROTECT): Transplant **
ROW: Within ROW
CLASS SIZE: B
SIZE (HEIGHT X WIDTH): 2.5 m x 2.5 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and northwest facing
LEAN: NA VIGOR: Normal FOLIAGE: Great CROWN DENSITY: Normal
NUMBER OF LIVE BRANCHES: 19 MAX BRANCH DIAMETER: 40-60 cm
NUMBER OF DEAD BRANCHES: 0
MAJOR BRANCH FAILURES: 0
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 10 MAX HEIGHT OF TALLEST PUP: 10 cm
DECAY OR DAMAGE: None
ROOT FLARE CONDITION: Ok
DRIP LINE RADIUS: 1.5 m or 5 ft
TRANSPLANT FEASIBILITY NOTES: Feasible given size and health. Best to keep all pups together, but if it may be difficult to keep root system in tract and separation maybe required, this will be determined in the field. There are many tiny pups which are best to transplant together. All small pups may need herbivore caging.
OTHER NOTES & RECOMMENDATIONS: If at all possible, given minimal depth of grading to leave in place and maintain distance off the drip line that would be preferred over transplanting.

All pups within 1 meter of the main trunk

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 20-22

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect
CLASS SIZE: B
ROW: Outside of ROW on private property by 6-9 ft
SIZE (HEIGHT X WIDTH): Not measured
SITE CONDITIONS & ASPECT: Sandy and northeast facing
FOLIAGE: Appears healthy and a bit short
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
DRIP LINE RADIUS: 2 M or approx. 6.5 ft
TRANSPLANT FEASIBILITY NOTES: Not recommended
OTHER NOTES & RECOMMENDATIONS: We did not enter this property and thus these trees were not precisely measured. There may be 3-4 healthy trees in this lower driveway area behind the wall and it is hard to determine from afar. As long as the wall and grade stays relatively the same and the root systems are undisturbed to the north these trees should be fine. Grading appears minimal and actually may mostly be fill as opposed to cut. Avoid altering drainage in a way that erosion could bury the root flare. It should be no problem to maintain 10 ft of distance from these trees while conducting ground work, please confirm with the Inspector and contractors.

Trees 20 & 21 shown here and rough distance from the wall.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 23

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect *
CLASS SIZE: A
ROW: Outside of ROW by 1 ft
SIZE (HEIGHT X WIDTH): 1 m x 60 cm
SITE CONDITIONS & ASPECT: Sandy and northeast facing
FOLIAGE: Appears healthy
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
DRIP LINE RADIUS: 1/2 M or approx. 1.6 ft
TRANSPLANT FEASIBILITY NOTES: Feasible, but may not be necessary.
OTHER NOTES & RECOMMENDATIONS: We did not enter this property and thus the tree were not precisely measured. The wall is to stay, but the plans indicate that the hydrant is to be relocated. Caution will be required when working on the hydrant to maintain distance from the tree where feasible. The town requires 10 ft of distance from the tree to conduct work. The hydrant may only be 6-7 ft from the tree. Town surveyor should resurvey this tree and hydrant to make sure work can comply. Since the tree is small and healthy, work could be conducted less than 10 ft as long as the drip line radius clearance is maintained and the wall is not removed.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 24

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect *
CLASS SIZE: C
ROW: Outside of ROW by 2-3 ft
SIZE (HEIGHT X WIDTH): 4 m x 4 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and northwest facing
LEAN: NA VIGOR: Normal FOLIAGE: Good CROWN DENSITY: Dense
NUMBER OF LIVE BRANCHES: 50 +/- MAX BRANCH DIAMETER: 60 cm
NUMBER OF DEAD BRANCHES: 8
MAJOR BRANCH FAILURES: 2
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 5
NUMBER OF PUPS: 2 MAX HEIGHT OF TALLEST PUP: 2 m
DECAY OR DAMAGE: None
ROOT FLARE CONDITION: Ok
DRIP LINE RADIUS: 2 m or 6.5 ft
TRANSPLANT FEASIBILITY NOTES: Potentially feasible, but not recommended due to overall size and pups.
OTHER NOTES & RECOMMENDATIONS: Town requires a 10 ft radius (approx. 3 m), if possible to modify design to maintain 10 ft it would be best keep tree in place. This should be possible given the plans. This is a very healthy tree. Keep all work off the drip line radius. If possible to leave a large portion of the root system undisturbed, it may be preferable to disturb a small portion as opposed to destroying or attempting transplant. This plant flowered within the last two years and is contributing to the seed bank.

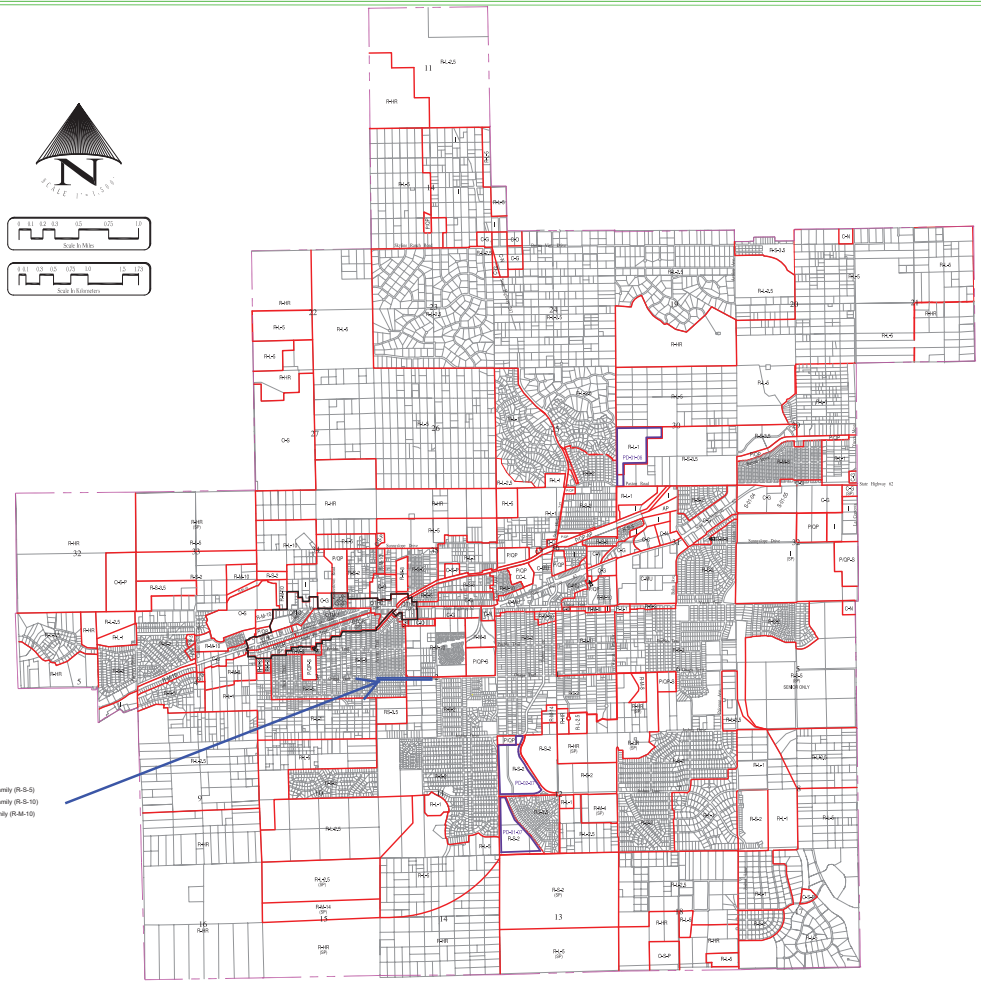
End of work should be able to maintain 10 ft from this tree.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*
PLANT NUMBER: 25

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect *
CLASS SIZE: C
ROW: Plans say about 8' but it's about 1-2 ft from fence
SIZE (HEIGHT X WIDTH): 4 m x 4 m (POLE 2M)
SITE CONDITIONS & ASPECT: Sandy and northwest facing
LEAN: N VIGOR: Normal FOLIAGE: Ok, short CROWN DENSITY: Sparse
NUMBER OF LIVE BRANCHES: 18 MAX BRANCH DIAMETER: 40-50 cm
NUMBER OF DEAD BRANCHES: 4
MAJOR BRANCH FAILURES: 3
HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 4
NUMBER OF PUPS: 0 MAX HEIGHT OF TALLEST PUP: N
DECAY OR DAMAGE: Damage to the trunk at the joint and irregular form at the base of the trunk due to age
ROOT FLARE CONDITION: Ok, some death and decay on the south side of the tree
DRIP LINE RADIUS: 2 m or 6.5 ft
TRANSPLANT FEASIBILITY NOTES: Not recommended due to size and damages and proximity to power lines.
OTHER NOTES & RECOMMENDATIONS: Town requires a 10 ft radius (approx. 3 m), if possible to modify design to maintain 10 ft it would be best keep tree in place if possible to work around given the health condition of the tree. If possible to leave a large portion of the root system undisturbed, it may be preferable to disturb a small portion as opposed to destroying or attempting transplant. However, give damage to the base of the trunk, it could be possible that this tree may cause a public health hazard in the future. It is unknown if the prior road work had an affect on the root system of this tree since this is a corner property.

2014

OFFICIAL ZONING DISTRICT MAP



LEGEND

R-HR	HILLSIDE RESERVE (1 du / 20 ac.)
R-L	RURAL LIVING (1 du / 1, 2.5, 5, 10, 20 ac.)
R-S	RESIDENTIAL, SINGLE FAMILY (0-2, 0-3.5, 0-5 du /ac .)
R-M	RESIDENTIAL, MULTI-FAMILY (1-10, 0-14 du / ac.)
C-MU	MIXED USE COMMERCIAL (Varies)
C-N	NEIGHBORHOOD COMMERCIAL
C-G	GENERAL COMMERCIAL
C-C	COMMUNITY COMMERCIAL
C-O	OFFICE COMMERCIAL
I	INDUSTRIAL
P/QP	PUBLIC/QUASI PUBLIC (SEE SYMBOLS)
O-S	OPEN SPACE (SEE SYMBOLS)
(SP)	SPECIFIC PLAN

OLD TOWN LAND USE

OTHC	OLD TOWN HIGHWAY COMMERCIAL
OTI/C	OLD TOWN INDUSTRIAL/COMMERICAL
OTMU	OLD TOWN MIXED USE
OTC/R	OLD TOWN COMMERICAL/RESIDENTIAL

SYMBOLS

PUBLIC/QUASI PUBLIC

AP	AIRPORT
CC	CIVIC CENTER
FS	FIRE STATION
PS	POLICE STATION
H	HOSPITAL
S	SCHOOL
L	LIBRARY
U-SS	UTILITY SUBSTATION
FW	FLOODWAY

OPEN SPACE

P	PARK

LAND USE PLANS

SP	SPECIFIC PLAN
PD	PLAN DEVELOPMENT

Town of YUCCA VALLEY

TOWN COUNCIL MEETING
DECEMBER 16, 2014

Ptn. Yucca Vista No. 3, Tract No. 4155
M.B. 53/60-61

Town of Yucca Valley
Tax Rate Area
23000

0587 - 05

February 2005

Assessor's Map
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San Bernardino County

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06

04

03

051

052

053

054

PUEBLO TRAIL

ACOMA

BORREGO TRAIL

YUMA TRAIL

ONAGA TRAIL

W.1/4 COR.
FRACTIONAL SEC.2
T.1S.,R.3E., S.B.B.&M.

1" = 100'

REVISED

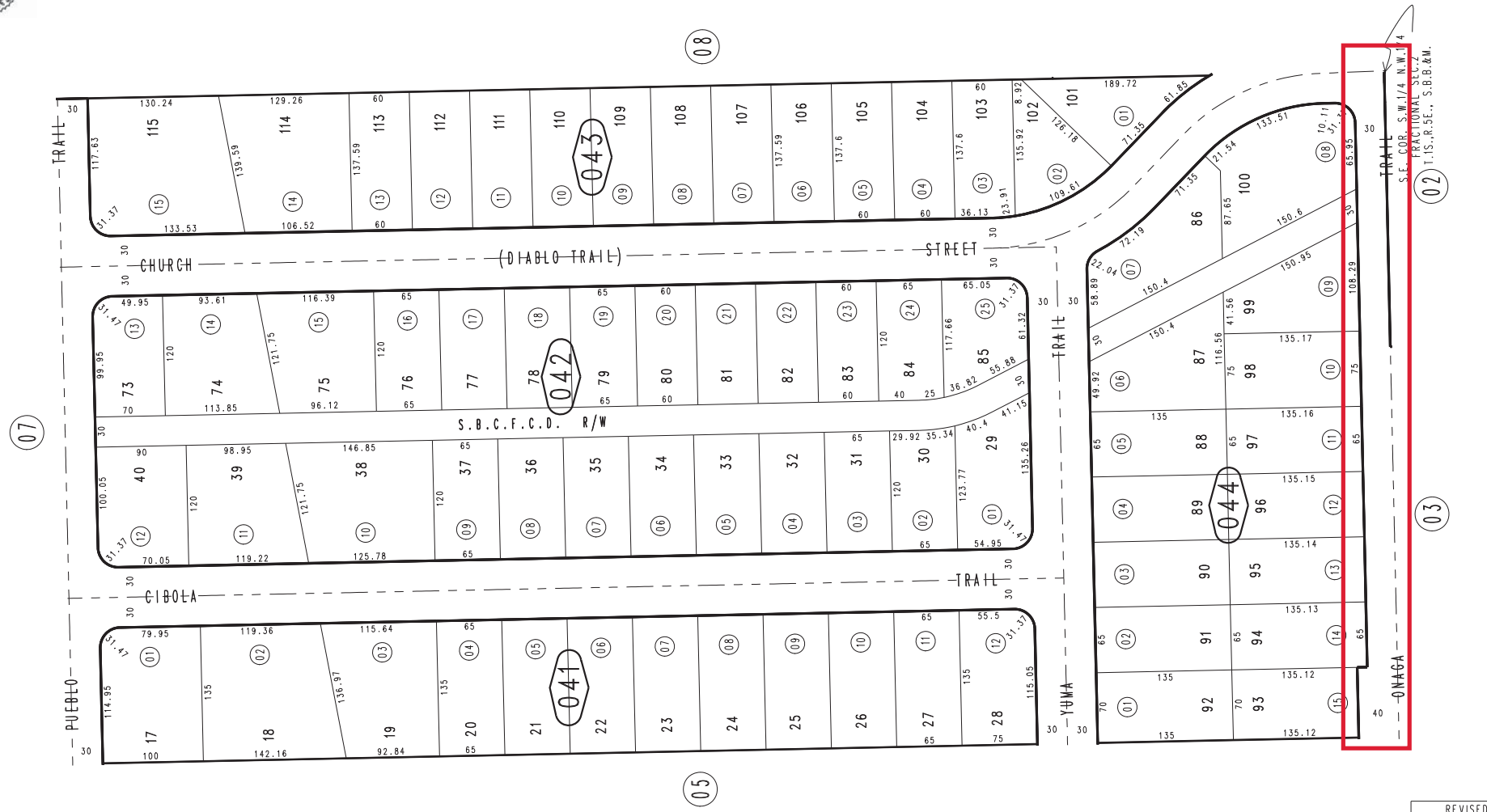
THIS MAP IS FOR THE PURPOSE OF AD VALOREM TAXATION ONLY.

Ptn. Yucca Vista Unit No. 4, Tract No. 4881
M.B. 64/59-61

Town of Yucca Valley
Tax Rate Area
23000

0587 - U 4

1" = 100'



February 2005

Assessor's Map
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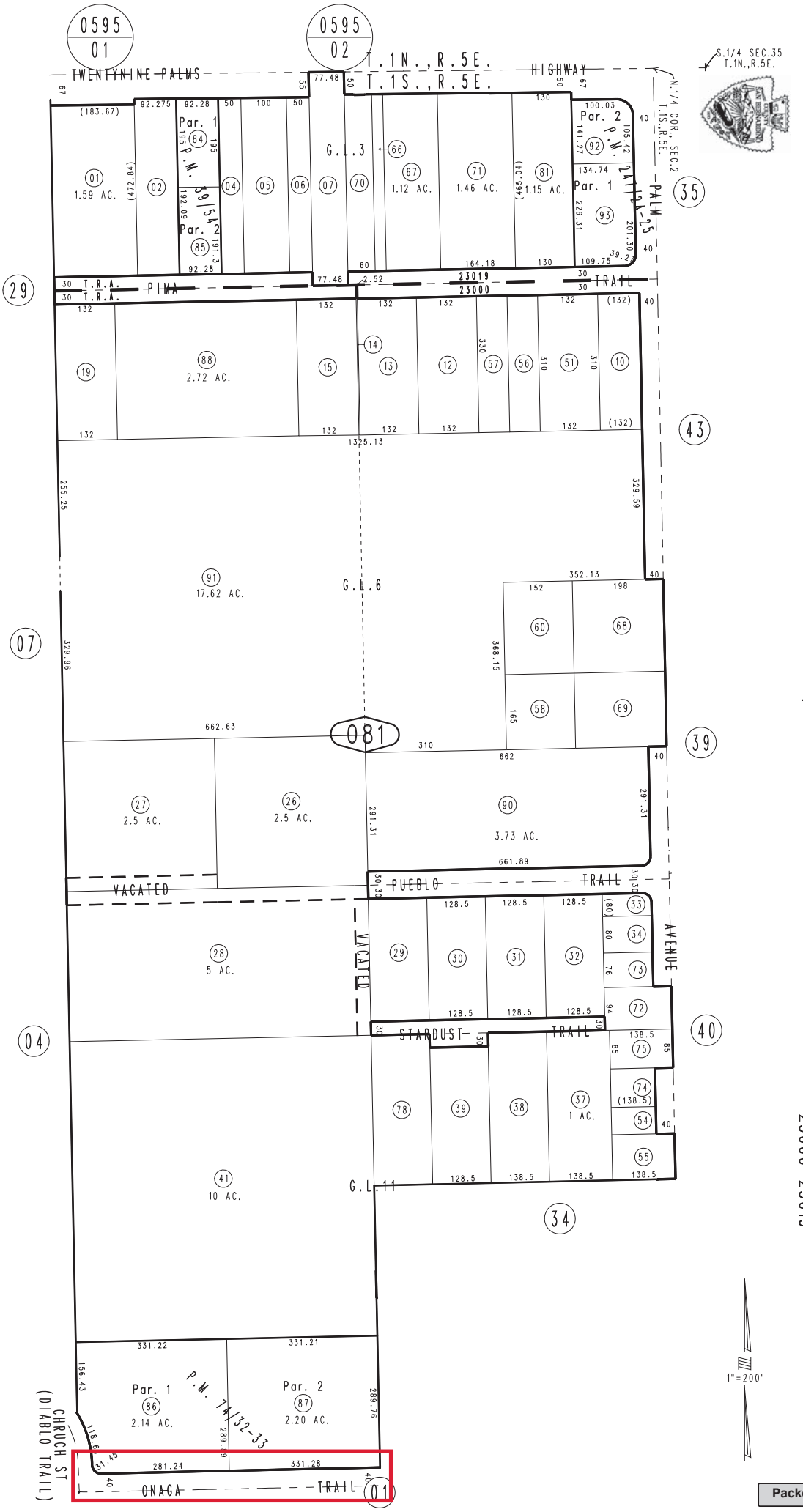
San Bernardino County

REVISED
06/08/10 GL-MC



February 2005

Parcel Map No. 19655, P.M. 247/24-25
Parcel Map No. 7243, P.M. 74/32-33
Parcel Map No. 4059, P.M. 39/54

Assessor's Map
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San Bernardino County

REVISED
06/11/15 KC
02/10/17 GW

T.1/2 N.W.1/4 fractional Sec.2, T.1S.,R.5E., S.B.B.&M.
R.S. 4/31

Town of Yucca Valley
Tax Rate Area
23000 23019

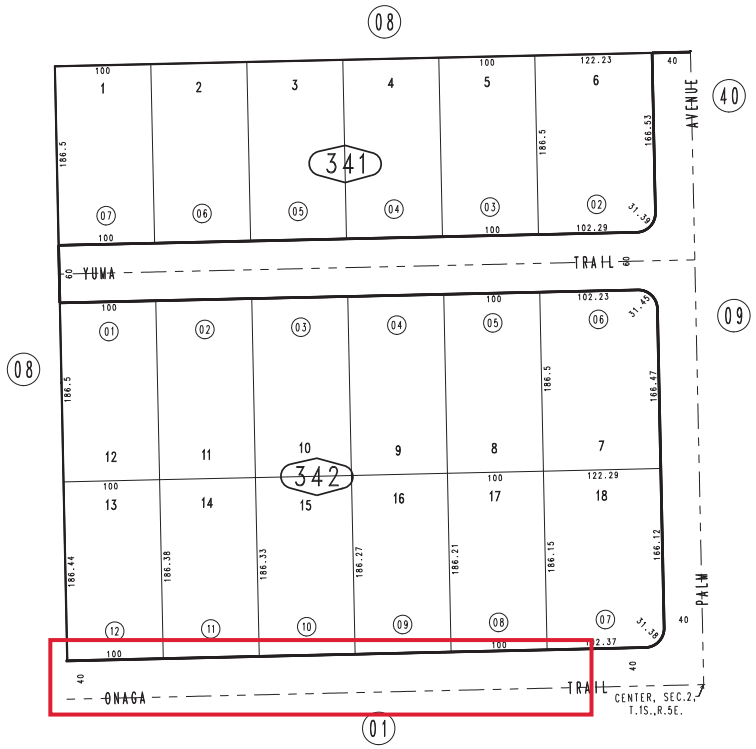
0587 - 08

THIS MAP IS FOR THE PURPOSE OF AD VALOREM TAXATION ONLY.

Tract No. 6315, M.B. 80/34

Town of Yucca Valley
Tax Rate Area
23000

0587 – 34



1" = 100'

February 2005

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San Bernardino County

REVISED
09/02/10 LH