

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942
619.462.1515 tel
619.462.0552 fax
www.helixepi.com



July 14, 2021

Project 00022.00008.001

Mr. Michael D'Ambrosia
Alexandria Real Estate Equities
10996 Torreyana Road, Suite 250
San Diego, CA 92121

Subject: Tree Survey Report for the One Alexandria North Project (PTS-0691942)

Dear Mr. D'Ambrosia:

At the request of Alexandria Real Estate Equities and on behalf of the City of San Diego (City), HELIX Environmental Planning, Inc. (HELIX) has prepared this report to document the results of a tree survey for the One Alexandria North Project (project), which is proposed in the City of San Diego, San Diego County, California. The purpose of the survey was to inventory all of the Torrey pine (*Pinus torreyana*) trees with a trunk diameter of at least 4 inches at 54 inches above natural grade occurring within, directly abutting, and adjacent to the property to determine tree health, impact, and retention potential as it relates to the project.

This letter report summarizes the methods and results; the report includes a figure that depicts the location for the trees surveyed along with recommendations for avoidance and tree protection measures to abate and/or remove potential impacts to arboricultural resources.

PROJECT LOCATION AND DESCRIPTION

The approximately 11.4-acre One Alexandria North project site is located in the Torrey Pines community in the City of San Diego, San Diego County, California (Figure 1, *Regional Location*). It lies within an unsectioned portion of Township 14 South, Range 4 West of the Del Mar U.S. Geological Survey (USGS) 7.5-minute quadrangle map (Figure 2, *USGS Topography*). The site is generally located east of the Pacific Ocean, west of Interstate 5, south of Del Mar, and north of La Jolla (Figure 1). The site is specifically located at 11255 and 11355 North Torrey Pines Rd, La Jolla, CA 92037 (Accessor's Parcel Numbers [APNs] 310-110-13-00 and 310-110-14-00), west of Torrey Pines State Reserve (Figure 3, *Aerial Photograph*). The project consists of the redevelopment of the current National University - La Jolla, California Academic Headquarters into a two-building research and development campus, with supporting amenity uses and parking structure.

METHODS

HELIX International Society of Arboriculture (ISA) Certified Arborist, Alexander Walsh (WE-12997A) completed the tree survey between January 4 and January 6, 2021. All Torrey pines surveyed had a trunk diameter of at least 4 inches at 54 inches above natural grade and are occurring within, directly abutting, and adjacent to the project footprint. Each tree was located with sub-meter accuracy using a Global Positioning System unit.

The following data was collected for each tree:

- Average tree canopy spread;
- Tree height;
- Tree trunk diameter at 54" above natural grade; diameter at breast height (DBH); and
- Tree health and vigor.

RESULTS

During the arborist survey, 213 Torrey pines were mapped within, directly abutting, and adjacent to the project footprint (Figure 4, *Tree Locations*). Of the 213 Torrey pines that were surveyed within, directly abutting, and adjacent to the project footprint, 101 are categorized as ornamental trees, based on a review of historic aerial photographs (Historic Aerials 2021), that show that the majority of the site was graded between 1978 and 1980. As shown in Figure 5, *1980 Aerial*, the majority of the site was graded and devoid of vegetation, specifically trees. HELIX mapped the areas within Figure 5 that were devoid of vegetation and compared them to the location of the mapped trees in Figure 4.

The remaining 112 trees are considered naturally occurring Torrey pine trees as these trees occur outside of the limits of disturbance shown in Figure 5. Of the 112 remaining Torrey pine trees, 22 are determined to be irrigated due to their proximity to the project site, while the remaining 90 are not irrigated. These naturally-occurring Torrey pines, irrigated and not irrigated, occur along the northwestern portion of the project site. A map depicting the location of each tree and whether it is categorized as natural (including irrigated) or ornamental is included in Figure 4. A health rating was given to each tree. The four categories used include: Good, Fair, Poor, or Dead. All trees were determined to be in good health. None of the trees surveyed exhibited signs of stress, such as wilting or yellowing and browning of the needles. The results of the tree survey are included as Attachment A, *Tree Survey Results*. Representative site and tree photographs are included as Attachment B, *Representative Site Photos*.

IMPACTS AND RETENTION POTENTIAL

The 101 ornamental Torrey pines are not considered sensitive resources, and thus project-related impacts to these trees do not require mitigation. The 112 naturally occurring Torrey pines are considered sensitive resources; however, the majority occur outside of the property boundary in the northwestern portion of the study area. Figure 4 depicts a cluster of eight naturally occurring trees in the central northern portion of the project site that fall within the project boundary. These trees occur

above the grade of the adjacent developed area and are contained by a large retaining wall. The project has been specifically planned to avoid impacts to naturally-occurring (including irrigated) Torrey pines within the project site and vicinity; therefore, the project does not anticipate impacts to any of the naturally-occurring Torrey pine trees.

RECOMMENDATIONS FOR AVOIDANCE AND PROTECTION

It has been determined that the eight naturally occurring trees that occur on-site would be avoided during project construction. In order to protect trees within the vicinity of a construction site, it is recommended to avoid the critical root zone (CRZ) of each naturally occurring (including irrigated) Torrey pine. The CRZ is also known as the Tree Protection Zone (TPZ), which is typically defined as a circle on the ground corresponding to the dripline of the tree. In the TPZ, the soil will be protected from compaction, critical roots are not damaged by pruning, trenching, or excessive grade changes, and trunk and branches are not damaged by equipment or workers. A TPZ helps ensure that a tree is protected during construction, has enough space for root and branch growth, and will receive adequate supplies of soil nutrients, air, and water.

Although the dripline can be irregular and hard to define, an alternative method for determining the CRZ is to multiply the diameter (DBH) of the tree (in inches) by 12. A common practice for construction projects with trees designated for preservation is to place orange snow fencing approximately 6 to 10 feet out from the dripline, as an additional buffer since the CRZ can actually extend well beyond the canopy dripline, depending on tree size.

In addition, instead of raking up the fallen needles, allow them to lie where they fall on top of the ground surrounding the tree. This long-lasting, natural mulch helps to preserve moisture in the soil, hinders weeds, and is beneficial to the Torrey pine.

CONCLUSION

In conclusion, a tree survey was completed to document existing Torrey pine trees within, directly abutting, and adjacent to the project footprint for the One Alexandria North Project. The tree location, health, trunk diameter, and canopy spread were inventoried to help determine impact and retention potential as it relates to the project. All 213 Torrey pines surveyed were determined to be in good health, 112 trees were determined to be naturally occurring, while 101 trees were determined to be ornamental landscaped trees according to a review of historical aerial imagery, including a 1980 aerial photograph that showed that the majority of the site had been graded and was devoid of vegetation.

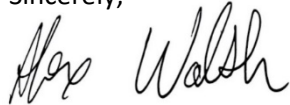
The project has been specifically designed to avoid impacts to all naturally occurring (including irrigated) Torrey pines. In order to protect the native trees during construction, it is recommended that orange snow fencing be installed around the TPZ, extending 6 to 10 feet beyond the dripline in a circle around the avoided naturally-occurring trees.

Letter to Michael D'Ambrosia
July 14, 2021

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We appreciate the opportunity to provide you with this tree survey. Should you have any questions or require additional information, please do not hesitate to contact me at (619) 730-5780 or AlexanderW@helixepi.com, or Katie Bellon at (858) 395-7397 or KatieB@helixepi.com.

Sincerely,



Alexander Walsh
ISA Certified Arborist (WE-12997A)
Biologist

Attachments:

- Figure 1: Regional Location
- Figure 2: USGS Topography
- Figure 3: Aerial Photograph
- Figure 4: Tree Locations
- Figure 5: 1980 Aerial
- Attachment A: Tree Survey Results
- Attachment B: Representative Site Photos

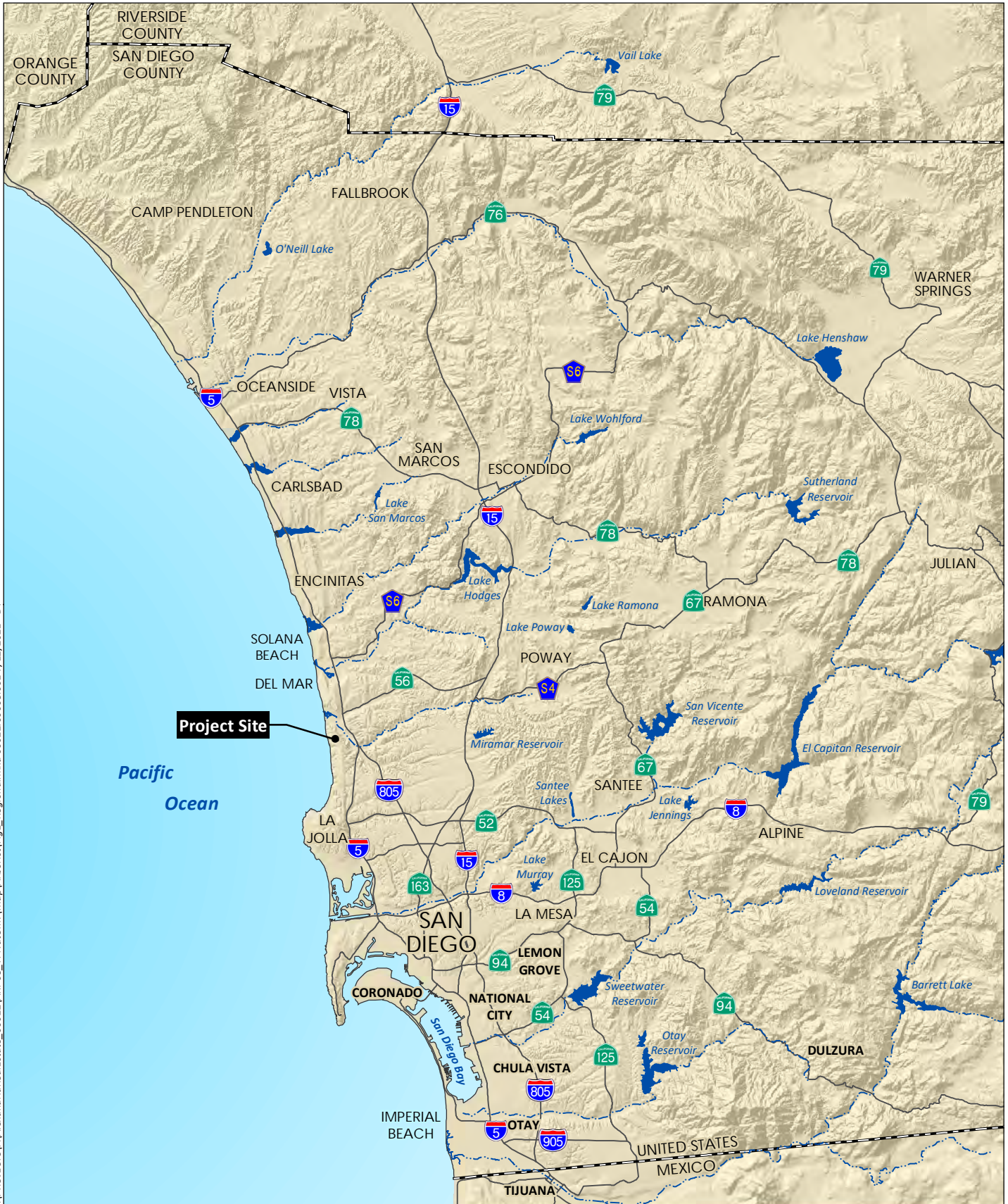
REFERENCES

UC Berkeley College of Natural Sciences; Forest Pathology and Mycology Lab. *What is the Critical Root Zone around a tree?*

International Society of Arboriculture. International Society of Arboriculture, P.O. Box GG, Savoy, IL 61874-9902. (217) 355-9681. 1998. *Trees in Development*. (A professional's guide to preserving trees in development.)

HistoricAerials.com. 2021. <https://www.historicaerials.com/>. 1980. 11255 and 11355 North Torrey Pines Road, San Diego, CA 92121.

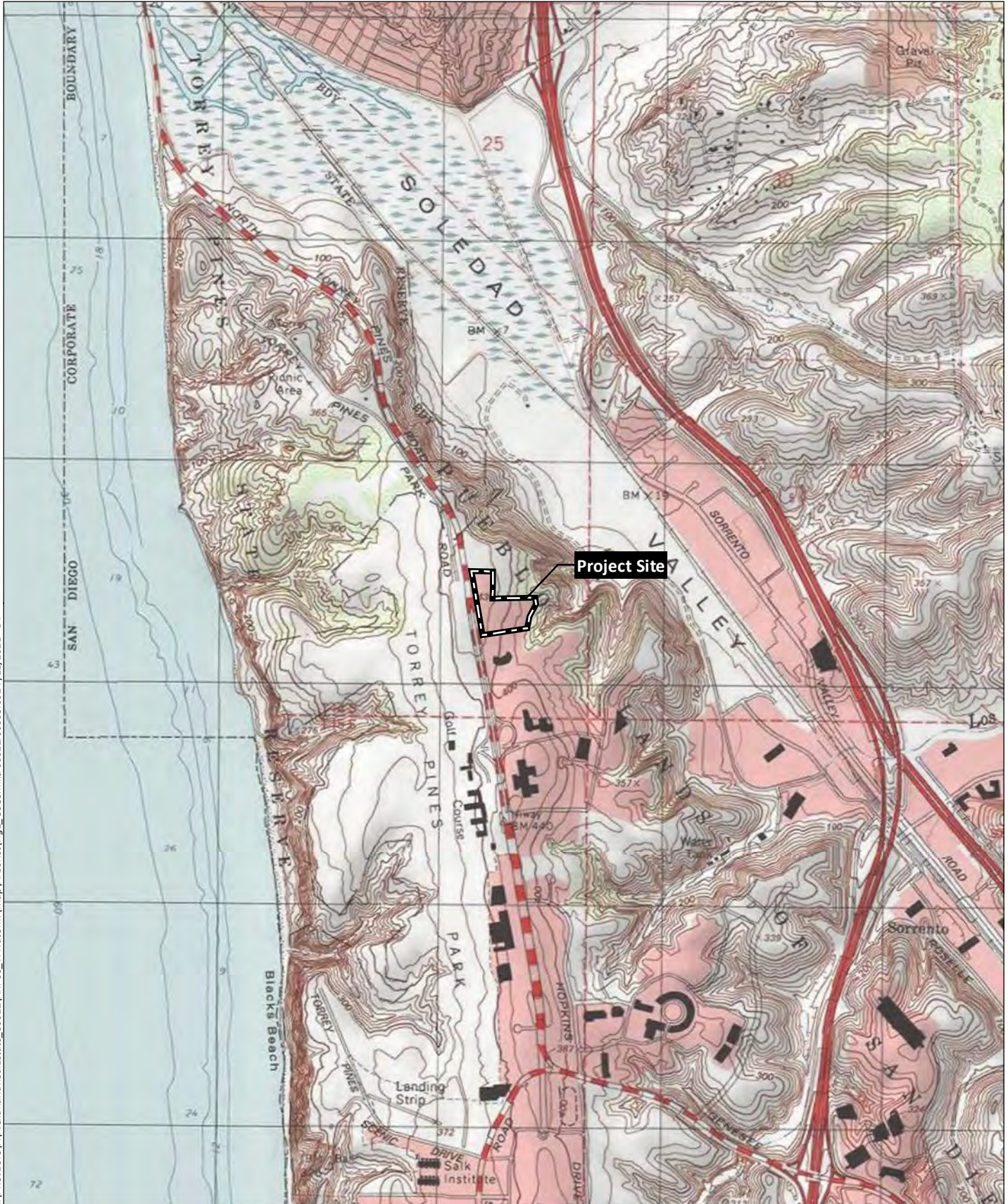
History and Care of the Torrey Pine. Pat Welsh, Organic and Southern California Gardening.



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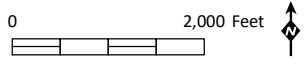


Source: Base Map Layers (SanGIS, 2016)



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Source: DEL MAR 7.5' Quad (USGS)



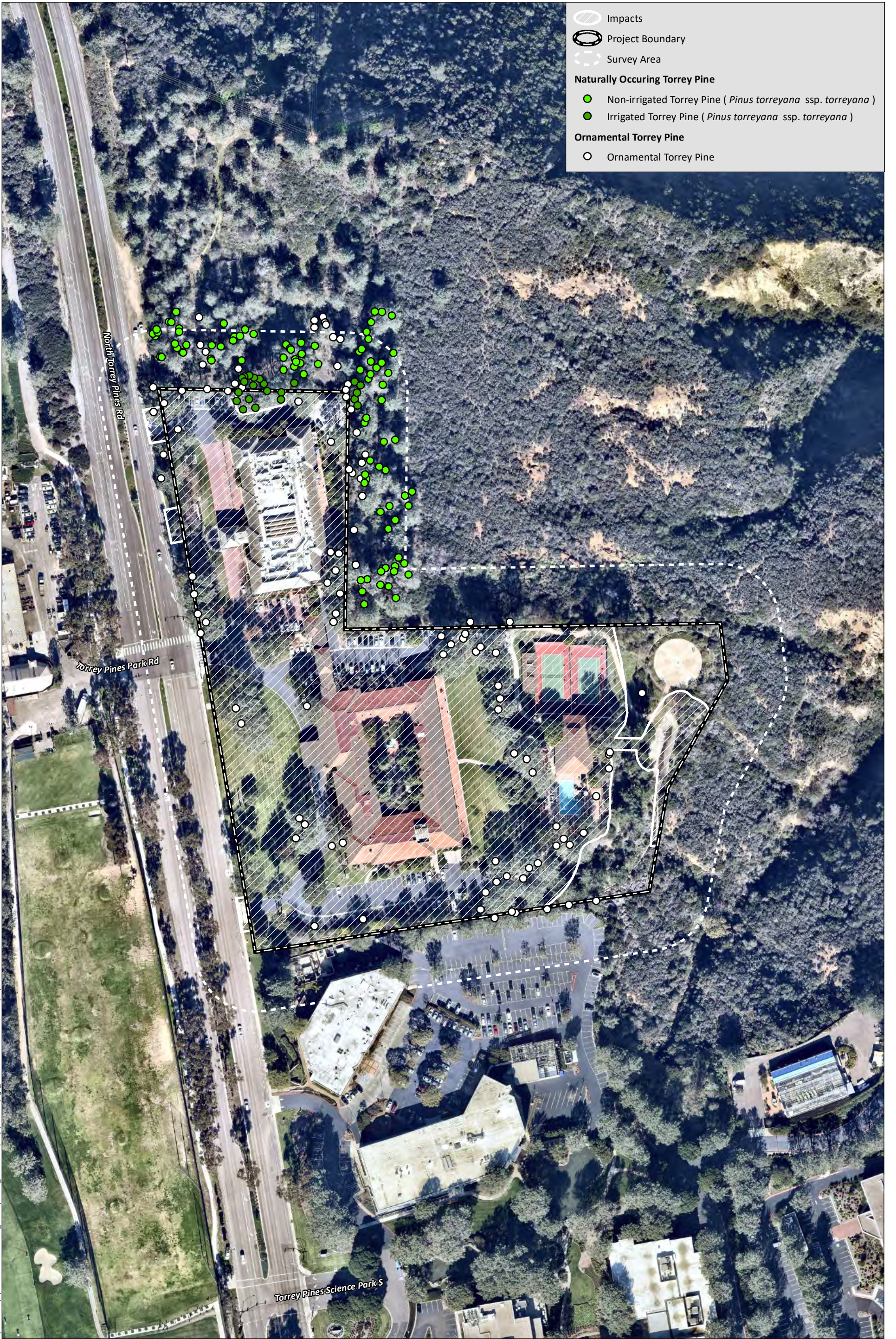
Project Boundary
Torrey Pines State Reserve



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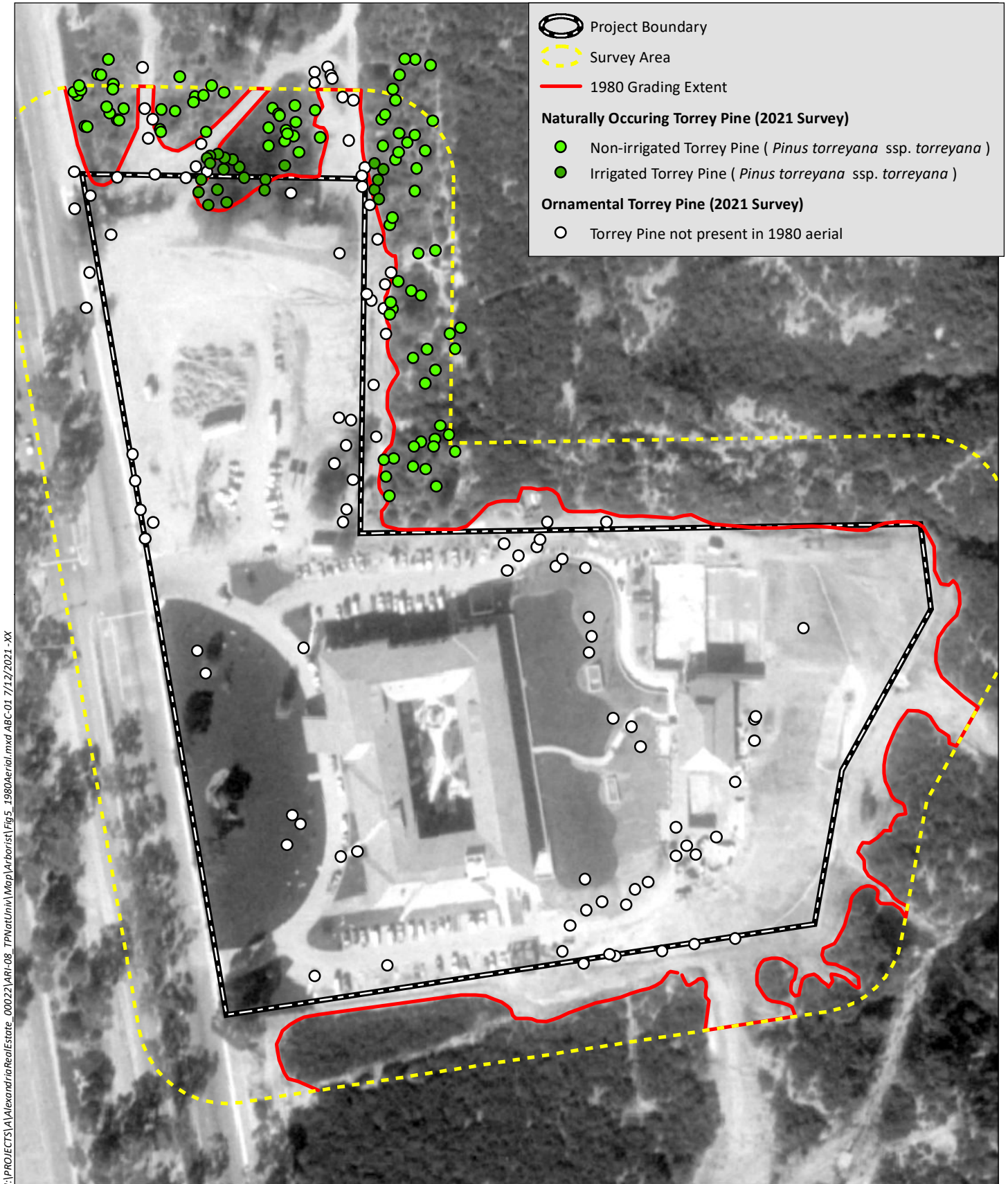


Source: Aerial (SanGIS, 2019)



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Source: Aerial (HistoricAerials, 1980)

Appendix A Tree Survey Results

| Tree ID # | CommonName | SciName | DateObs | DBH (inches) | Height (ft) | Dripline (canopy width) | Health/Vigor (Good, Fair, Poor, Dead) |
|-----------|-------------|------------------------|---------|--------------|-------------|-------------------------|---------------------------------------|
| 1 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 24.5 | 60 | 20 | good |
| 2 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 23 | 50 | 25 | good |
| 3 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 24 | 50 | 30 | good |
| 4 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 24.5 | 50 | 40 | good |
| 5 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 31 | 50 | 40 | good |
| 6 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 22.5 | 45 | 30 | good |
| 7 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 11.5 | 25 | 20 | good |
| 8 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 22 | 60 | 30 | good |
| 9 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 11 | 45 | 20 | good |
| 10 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 21 | 55 | 30 | good |
| 11 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 13.5 | 50 | 25 | good |
| 12 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 14.5 | 50 | 25 | good |
| 13 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 28.5 | 45 | 50 | good |
| 14 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 13 | 50 | 25 | good |
| 15 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 11.5 | 55 | 20 | good |
| 16 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 10.5 | 50 | 15 | good |
| 17 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 7.5 | 45 | 10 | good |
| 18 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 22 | 50 | 40 | good |
| 19 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 21 | 55 | 30 | good |
| 20 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 19 | 55 | 30 | good |
| 21 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 13 | 50 | 20 | good |
| 22 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 15 | 55 | 15 | good |
| 23 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 18.5 | 45 | 30 | good |
| 24 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 9.5 | 25 | 25 | good |
| 25 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 20 | 50 | 35 | good |
| 26 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 15.5 | 55 | 30 | good |
| 27 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 13.5 | 45 | 25 | good |
| 28 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 20 | 50 | 30 | good |
| 29 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 5.5 | 20 | 10 | good |
| 30 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 28.5 | 55 | 40 | good |
| 31 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 16.5 | 40 | 30 | good |
| 32 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 6 | 35 | 10 | good |
| 33 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 28 | 50 | 30 | good |
| 34 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 10.5 | 40 | 20 | good |
| 35 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 25.5 | 60 | 30 | good |
| 36 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 12.5 | 50 | 20 | good |
| 37 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 15.5 | 50 | 20 | good |
| 38 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 9.5 | 40 | 15 | good |
| 39 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 6 | 30 | 15 | good |
| 40 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 22 | 50 | 20 | good |
| 41 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 17 | 48 | 22 | good |
| 42 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 15.5 | 45 | 15 | good |
| 43 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 7.5 | 30 | 15 | good |
| 44 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 22 | 50 | 30 | good |
| 45 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 14.5 | 40 | 30 | good |
| 46 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 17.5 | 45 | 25 | good |
| 47 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 20 | 50 | 25 | good |
| 48 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 14 | 50 | 20 | good |
| 49 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 12.5 | 45 | 20 | good |
| 50 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 20.5 | 50 | 25 | good |
| 51 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 11.5 | 45 | 12 | good |
| 52 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 13 | 50 | 15 | good |
| 53 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 23 | 50 | 30 | good |
| 54 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 19 | 50 | 25 | good |
| 55 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 14.5 | 50 | 20 | good |
| 56 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 29.5 | 55 | 45 | good |
| 57 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 15 | 50 | 15 | good |
| 58 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 16 | 40 | 15 | good |
| 59 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 18 | 45 | 25 | good |
| 60 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 9 | 40 | 10 | good |
| 61 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 16.5 | 40 | 30 | good |
| 62 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 11 | 40 | 15 | good |
| 63 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 10 | 50 | 20 | good |
| 64 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 19.5 | 45 | 30 | good |
| 65 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 10 | 40 | 15 | good |
| 66 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 12 | 40 | 30 | good |
| 67 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 13 | 15 | 20 | good |
| 68 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 11 | 45 | 20 | good |
| 69 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 11.5 | 45 | 20 | good |
| 70 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 10 | 45 | 20 | good |
| 71 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 15 | 45 | 12 | good |
| 72 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 16 | 40 | 15 | good |
| 73 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 17.5 | 40 | 20 | good |
| 74 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 20 | 35 | 40 | good |
| 75 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 14.5 | 40 | 25 | good |
| 76 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 19 | 40 | 30 | good |
| 77 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 13.5 | 37 | 15 | good |
| 78 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 13 | 40 | 20 | good |
| 79 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 6 | 20 | 15 | good |

Appendix A Tree Survey Results

| Tree ID # | CommonName | SciName | DateObs | DBH (inches) | Height (ft) | Dripline (canopy width) | Health/Vigor (Good, Fair, Poor, Dead) |
|-----------|-------------|------------------------|---------|--------------|-------------|-------------------------|---------------------------------------|
| 80 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 12 | 35 | 25 | good |
| 81 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 7.5 | 30 | 15 | good |
| 82 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 21 | 40 | 25 | good |
| 83 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 12.5 | 40 | 20 | good |
| 84 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 6 | 30 | 10 | good |
| 85 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 6 | 25 | 10 | good |
| 86 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 8.5 | 30 | 15 | good |
| 87 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 7 | 35 | 15 | good |
| 88 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 21 | 50 | 40 | good |
| 89 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 4 | 15 | 10 | good |
| 90 | Torrey pine | <i>Pinus Torreyana</i> | 1/4/21 | 15 | 50 | 30 | good |
| 91 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 9.5 | 50 | 20 | good |
| 92 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 9 | 45 | 15 | good |
| 93 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 6 | 30 | 10 | good |
| 94 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 10 | 50 | 20 | good |
| 95 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 14 | 50 | 15 | good |
| 96 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 14 | 50 | 25 | good |
| 97 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 9 | 45 | 10 | good |
| 98 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 13.5 | 60 | 22 | good |
| 99 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 11 | 55 | 20 | good |
| 100 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 12.5 | 55 | 20 | good |
| 101 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 9.5 | 55 | 18 | good |
| 102 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 27.5 | 70 | 40 | good |
| 103 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 23 | 55 | 30 | good |
| 104 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 15 | 55 | 20 | good |
| 105 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 20.5 | 60 | 20 | good |
| 106 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 21.5 | 65 | 30 | good |
| 107 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 20 | 60 | 20 | good |
| 108 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 18 | 60 | 30 | good |
| 109 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 18.5 | 60 | 25 | good |
| 110 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 27 | 60 | 40 | good |
| 111 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 26.5 | 60 | 40 | good |
| 112 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 17 | 60 | 15 | good |
| 113 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 15.5 | 60 | 20 | good |
| 114 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 6 | 25 | 10 | good |
| 115 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 10 | 40 | 20 | good |
| 116 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 7 | 40 | 15 | good |
| 117 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 11 | 45 | 15 | good |
| 118 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 14 | 45 | 20 | good |
| 119 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 10.5 | 45 | 15 | good |
| 120 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 8.5 | 45 | 12 | good |
| 121 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 8 | 35 | 20 | good |
| 122 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 10 | 40 | 25 | good |
| 123 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 10 | 30 | 15 | good |
| 124 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 17 | 45 | 25 | good |
| 125 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 22 | 50 | 30 | good |
| 126 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 20.5 | 45 | 25 | good |
| 127 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 23.5 | 50 | 30 | good |
| 128 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 21.5 | 55 | 20 | good |
| 129 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 33 | 60 | 40 | good |
| 130 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 15.5 | 50 | 30 | good |
| 131 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 17.5 | 55 | 25 | good |
| 132 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 18 | 55 | 25 | good |
| 133 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 12 | 40 | 18 | good |
| 134 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 15 | 35 | 20 | good |
| 135 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 9 | 40 | 25 | good |
| 136 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 12 | 50 | 15 | good |
| 137 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 6 | 40 | 10 | good |
| 138 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 13 | 45 | 12 | good |
| 139 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 11 | 40 | 16 | good |
| 140 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 14 | 45 | 20 | good |
| 141 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 8 | 45 | 10 | good |
| 142 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 10 | 45 | 10 | good |
| 143 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 14 | 45 | 15 | good |
| 144 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 13 | 45 | 12 | good |
| 145 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 13 | 45 | 14 | good |
| 146 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 16 | 40 | 20 | good |
| 147 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 17 | 45 | 22 | good |
| 148 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 5.5 | 30 | 10 | good |
| 149 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 14.5 | 45 | 24 | good |
| 150 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 11 | 40 | 15 | good |
| 151 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 12 | 40 | 20 | good |
| 152 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 12.5 | 40 | 20 | good |
| 153 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 15.5 | 40 | 25 | good |
| 154 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 5.5 | 30 | 8 | good |
| 155 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 18 | 40 | 25 | good |
| 156 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 5.5 | 15 | 14 | good |
| 157 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 7.5 | 25 | 15 | good |
| 158 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 13 | 45 | 20 | good |

Appendix A Tree Survey Results

| Tree ID # | CommonName | SciName | DateObs | DBH (inches) | Height (ft) | Dripline (canopy width) | Health/Vigor (Good, Fair, Poor, Dead) |
|-----------|-------------|------------------------|---------|--------------|-------------|-------------------------|---------------------------------------|
| 159 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 13.5 | 40 | 15 | good |
| 160 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 13 | 50 | 18 | good |
| 161 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 38 | 50 | 35 | good |
| 162 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 30 | 70 | 25 | good |
| 163 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 44 | 65 | 40 | good |
| 164 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 33.5 | 40 | 30 | good |
| 165 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 23 | 50 | 20 | good |
| 166 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 32 | 55 | 40 | good |
| 167 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 33 | 65 | 30 | good |
| 168 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 26.5 | 60 | 25 | good |
| 169 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 33.5 | 50 | 40 | good |
| 170 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 36.5 | 50 | 40 | good |
| 171 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 17.5 | 25 | 20 | good |
| 172 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 31 | 60 | 30 | good |
| 173 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 26 | 60 | 25 | good |
| 174 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 28.5 | 60 | 30 | good |
| 175 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 16 | 45 | 15 | good |
| 176 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 26.5 | 45 | 30 | good |
| 177 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 24 | 40 | 25 | good |
| 178 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 23.5 | 50 | 26 | good |
| 179 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 33 | 50 | 40 | good |
| 180 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 20 | 50 | 20 | good |
| 181 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 29 | 55 | 30 | good |
| 182 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 36 | 50 | 40 | good |
| 183 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 29 | 50 | 35 | good |
| 184 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 29.5 | 55 | 25 | good |
| 185 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 21.5 | 45 | 30 | good |
| 186 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 26 | 40 | 30 | good |
| 187 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 6 | 20 | 15 | good |
| 188 | Torrey pine | <i>Pinus Torreyana</i> | 1/5/21 | 6 | 25 | 15 | good |
| 189 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 8.5 | 30 | 18 | good |
| 190 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 9 | 28 | 16 | good |
| 191 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 6.5 | 25 | 20 | good |
| 192 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 24.5 | 35 | 30 | good |
| 193 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 16 | 45 | 25 | good |
| 194 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 15.5 | 45 | 25 | good |
| 195 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 28.5 | 50 | 30 | good |
| 196 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 18.5 | 40 | 20 | good |
| 197 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 32.5 | 50 | 40 | good |
| 198 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 34.5 | 60 | 50 | good |
| 199 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 45 | 60 | 45 | good |
| 200 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 41.5 | 55 | 50 | good |
| 201 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 23 | 45 | 25 | good |
| 202 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 26 | 45 | 25 | good |
| 203 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 22.5 | 45 | 30 | good |
| 204 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 19.5 | 45 | 20 | good |
| 205 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 29 | 50 | 40 | good |
| 206 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 23 | 50 | 35 | good |
| 207 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 21.5 | 50 | 25 | good |
| 208 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 33 | 50 | 45 | good |
| 209 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 32 | 50 | 35 | good |
| 210 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 38 | 52 | 44 | good |
| 211 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 20 | 55 | 36 | good |
| 212 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 12 | 20 | 20 | good |
| 213 | Torrey pine | <i>Pinus Torreyana</i> | 1/6/21 | 16.5 | 30 | 22 | good |



Photograph 1: A mixture of native and landscaped Torrey pines along the northern boundary of the project. Facing north; 01/04/2021.



Photograph 2: A landscaped Torrey Pine growing along the boundary of the project site. Facing east; 01/06/2021.

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Photograph 4: A cluster of native Torrey pines immediately outside the project boundary. Facing west; 01/05/2021.



Photograph 5: A landscaped Torrey pine along the southeastern portion of the project site. Facing north; 01/06/2021.

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