



City of Santa Barbara
Parks and Recreation Department

STAFF REPORT

AGENDA DATE: July 24, 2024
TO: Parks and Recreation Commission
FROM: Parks Division, Parks and Recreation Department
SUBJECT: East Anapamu Italian Stone Pines

RECOMMENDATION: That the Parks and Recreation Commission receive a presentation on the East Anapamu Italian Stone Pines and discuss options and opportunities for replanting East Anapamu Street.

INTRODUCTION

The purpose of this staff report is to provide a brief history of the Italian Stone Pines that line the 300-800 blocks of East Anapamu Street, review the challenges with maintaining the trees through many decades of urban development including installation and maintenance of paving, sidewalks, building infrastructure, and underground utilities, the current conditions of the trees, including recent removals necessary for public safety, and opportunities for replanting the street within a historical horticultural context.

BACKGROUND:

The Italian Stone Pines (stone pines) that line the 300 – 800 blocks of East Anapamu Street have long been an admired part of Santa Barbara’s horticultural heritage. Key contributors at the turn of the 20th century provided the foundation for what would become one of the city’s most unique and special streetscapes as well as its diverse and extensive urban forest. It began in 1908, when Dr. Augustus Boyd Doremus, a passionate horticulturist and civic beautification advocate, planted the first stone pines along the 500 – 800 blocks of East Anapamu Street. Several years later, in 1929, Ralph Stevens, the first salaried Parks Superintendent, planted the 300-400 blocks of East Anapamu Street. Over the decades, as the trees matured, they formed a distinctive canopy arching over the street.

Since the stone pines along East Anapamu Street reflect a specific period of Santa Barbara’s horticultural heritage and urban development, a movement to recognize the 300 – 800 blocks of East Anapamu resulted in Resolution Number 97-131, adopted by City Council on October 7, 1997. The adoption of the resolution designated all the stone

pine trees from the 300 to 800 blocks of East Anapamu a City Landmark called the Doremus Pine Trees. At that time, there were 79 Italian stone pines. Due to incomplete records of the number of stone pines planted by Dr Doremus and Ralph Stevens, it is not known how many of the 79 trees designated in 1997 were original plantings. It is anticipated that the designation includes original trees and trees that were planted in subsequent years.

DISCUSSION:

Tree Planting and Maintenance within an Urban Streetscape Context

East Anapamu Street has undergone significant development since the first plantings of the Doremus Stone Pines. This includes the construction of roads, housing, Santa Barbara High School, the Santa Barbara County Bowl, as well as the installation of underground, street level and above ground infrastructure. Such development, along with the paving of the street and development of sidewalks, both reduced the available space for stone pines and contributed to less-than-ideal long-term growing conditions. Due to the expansive root structure of the trees, which require regular sidewalk and street repairs, the consistent cutting of each tree's root system undermines tree health and stability. Santa Barbara's two extensive drought cycles have also been particularly challenging for many tree species with pine trees suffering to the largest extent. For many years, the City's Urban Forest team provided supplemental water to the stone pines in the hope of extending tree life.

Given these conditions, there have been numerous tree failures since the designation of the stone pines in 1997. Although City records regarding tree loss and replanting are not complete, at least 23 trees have been removed over the last several decades. At the beginning of 2024, there were 56 stone pines along the 300-800 blocks of East Anapamu. It is estimated that 33 of the 56 are replacement trees. These trees are considerably smaller than those estimated to be part of the original plantings. Due to their size, it is further estimated that 8 trees were planted by Dr. Doremus and 15 can be associated with Parks Superintendent Ralph Stevens.

Tree Failures, Removals, and Risk Assessment

As a result of winter storms including significant rain on March 29 and March 30, 2024, the City's Urban Forestry team responded to two significant stone pine failures along East Anapamu and proactively removed an additional three trees after evaluations revealed conditions that warranted expedited removal for public safety. In advance of that work commencing, On March 19, April 10, and April 19, Forestry staff provided detailed notes to the City's Historian, for the three trees prioritized for expedited removal to document the removals and rationale supporting their removal.

In response to the tree failures, the Urban Forestry team subsequently initiated a full risk assessment of all the remaining 51 stone pines following current industry standards set forth by the International Society of Arboriculture's Tree Risk Assessment Qualification. This assessment involves a detailed review of each tree, its health, potential for failure, and consequences of full or partial failure.

The assessment identified five additional trees with conditions that warranted complete removal to protect public safety. While there are several complicating factors with each of these trees, the primary driver of this decision was extensive root decay related to root injury from repairs to the roads and hardscape over the last several decades. The additional trees identified for removal had decay within the visible root zone, indicating that very little, or none, of each tree's primary structural root zone remained.

Prior to the planned removals, on May 20, 2024, the Parks and Recreation Department provided a detailed memo to City Council, the Historic Landmarks Commission, the Parks and Recreation Commission, and the Street Tree Advisory Committee (Attachment). In addition, on May 21, 2024, the Department sent mailers to all residents on Anapamu Street, developed a project webpage, placed informational signs on the street, and issued a press release. Forestry staff conducted four of five tree removals during the first and second weeks of June. Because a bird survey conducted in advance of the removals identified an active bird nest, the remaining tree will be removed during the month of July when the birds are no longer present.

Municipal Code Sections Governing Santa Barbara's Trees.

Santa Barbara Municipal Code (SBMC) 15.20 – Tree Planting and Maintenance, referred to as the "Street Tree Ordinance of the City of Santa Barbara" provides regulatory guidance for street trees, and SBMC 15.24 - Preservation of Trees, referred to as the "Tree Preservation Ordinance of the City of Santa Barbara" regulates private setback and parking lot trees, as well as trees on an approved plan or a tree designated as an historic or specimen tree by the City Council.

Key aspects of the Municipal Code guide decision making for the designation and removal of street, park and private trees. SBMC 15.20.180 provides the process for designating trees as historic. SBMC 15.20.050 provides the Parks and Recreation Director or designee with authority to remove City trees from public areas without formal review if necessary for public safety. SBMC 15.24.030 also allows for the removal of a tree without a permit if a tree is so weakened by age, disease, storm, fire, or any injury so as to cause imminent danger to persons or property.

SBMC 15.24.055 addresses private trees under the purview of the Historic Landmarks Commission, focusing on those within the El Pueblo Viejo Landmark District or the Brinkerhoff Landmark District.

SBMC 15.24.060 outlines the application process for the removal of historic or specimen trees, requiring review by the Street Tree Advisory Committee and final approval by the Parks and Recreation Commission.

Both sections 15.24.055 and 15.24.060 outline the process for a tree owner to apply to have a healthy historic tree or a healthy tree in a historic district removed. If a public improvement or any other project in the future would require the removal of a healthy stone pine on East Anapamu, its review would occur through the Street Tree Advisory Committee and the Parks and Recreation Commission as outlined in SBMC 15.24.060. Both private residents and City departments are required to comply with requirements under SBMC 15.24.060.

Over the years, the Parks and Recreation Department has only removed stone pines due to failure and safety concerns. The most recent stone pine removals in March as well as June were completed in response to complete failure as well as determined to be necessary for public safety. Under these circumstances, per SBMC 15.20.050, no formal review is required.

Long Term Outlook for Existing Trees

The City's Urban Forestry team will continue to monitor the remaining 46 stone pines, providing an assessment occurring every two years to evaluate stress and structural integrity of the existing trees. Given the significant amount of root pruning that has occurred over the years, continued decline of the remaining mature trees can be expected. Despite a desire to improve their health, the damage is uncorrectable and there are no interventions that would improve their health in the long term.

Tree roots provide three primary functions: anchorage, storage, and transport of water and nutrients. Large mature trees can produce only small fibrous roots which are the roots that work to uptake water and nutrients. Mature trees do not have the ability to produce primary structural roots which means that as the structural roots are damaged through infrastructure improvements and repair, the trees cannot recover lost structural integrity. The management of the mature Italian stone pines is now a balancing act between managing risk and preserving this unique historical resource for as long as possible.

In addition to the significant challenges and stress caused by root pruning over the years, root and above-ground tissue samples (wood and needles) submitted to a plant diagnostic laboratory in January and March 2024, came back positive for *Phytophthora*, a root rot pathogen. This fungal pathogen kills a tree's roots, first infecting small fibrous feeder roots before moving into larger roots of the tree. Infected feeder roots impact the tree's ability to uptake water and nutrients, leading to overall decline. Given the pathogen's ability to easily spread from one location to another, it is likely present in all parkways within the 300-800 blocks of East Anapamu Street. Tree species have varying

levels of sensitivity to Phytophthora, and the stone pines have proven to be more impacted than some other tree species.

Testing also identified Diplodia tip blight within the canopies of tested trees. This fungal pathogen causes the decline and death of portions of the tree canopy over time. This easily spread pathogen is likely present in the canopies of all trees displaying some level of decline.

All tree problems are caused by something biotic or abiotic in nature. Tree mortality usually results from a combination of factors, typically identified as primary and secondary causes. Primary causes are those that create significant stress. For the stone pines, significant root pruning has been the primary cause of chronic stress. Additionally, the two prolonged periods of drought have also had an impact. These physiological events lead to declines in tree vigor, and when vigor drops, it allows secondary issues to take effect. In the case of the stone pines on East Anapamu, both Phytophthora and Diplodia are considered secondary issues. When these factors accumulate and become overwhelming, they can push the balance unfavorably, resulting in the deterioration and eventual loss of the trees. It highlights the delicate balance required to maintain a healthy urban forest amidst various challenges.

With the potential for all existing and new stone pines to grow to a large enough size where surrounding hardscape can be disrupted, requiring repair and root pruning, it could lead to stress levels where these pathogens continue to gain a foothold and lead to an accelerated decline of the trees. With continually changing climates, water availability, and the presence of multiple pathogens it remains unclear if this species can still be successful on the street. Even in the case of smaller trees, there are examples of infrastructure conflict along the street, requiring sidewalk repair.

Re-Establishing Canopy Cover

Due to the loss of trees on East Anapamu over the past 45 years, there is a great need to plant new trees. There are several key considerations for the replanting of the street. Determining which species or combination of species are most suitable for repopulating the street will be a critical component. There are a variety of considerations for and against the continued use of stone pines. The beauty, canopy cover, and historic use of stone pines on the street are several of the benefits. Despite known challenges with pathogens and changes in local climate there are on-street examples of younger trees showing resilience and even success.

Conversely, the "right tree, right place" principle emphasizes selecting the appropriate species for a given location to maximize benefits and minimize negative impacts. Given the ongoing issues with stone pines, including disruptions to the surrounding roadway and hardscape, it may be that the species does not align well with this fundamental tree planting principle.

Based on a recent site survey, most of the 40 vacant tree planting locations spanning the 300–800 blocks have parkways that are six feet wide, though their lengths vary. Some sections of the street have smaller parkways, slightly less than four feet wide, also varying in length.

While sources suggest that parkways between four to seven feet are adequate for planting stone pines, many examples show that these trees can grow to a size that disrupts surrounding roads and hardscapes. This often leads to a cycle of root pruning and unnecessary stress on street trees. Additionally, the southeastern side of the street has overhead utility lines which create canopy conflict and leads to continuous trimming of stone pine that impacts the aesthetics of the tree and can contribute to structural imbalance.

Species Selection in the City of Santa Barbara

SBMC Section 15.20.030 provides that all trees within a parkway strip shall be planted and maintained according to the Street Tree Master Plan (Master Plan) adopted by City Council. The initial, and still current, Master Plan, was adopted by City Council Resolution No. 3863 in 1977. The Master Plan is a comprehensive document for the preservation, maintenance, and planting of trees located within the public right-of-way. An official Street Tree Designation List is an appendix of the plan. The Street Tree Designation List identifies either a specific species of tree or, in some cases, multiple species for use on streets or street segments (blocks) throughout the city. The Street Tree Designation List provides a framework to guide tree-planting decisions, with a focus on creating a welcoming neighborhood aesthetic, reducing tree related infrastructure conflicts, maximizing gained environmental benefits, and promoting species diversity citywide.

The Parks and Recreation Director administers the Master Plan and, with the approval of the Parks and Recreation Commission, has the authority to amend or add to the Plan at any time that circumstances make such an amendment or addition advisable. Since the Street Tree Designation List is part of the Master Plan, amendments or changes require review and approval by the Commission.

In 1982, the Parks and Recreation Commission changed the existing designation to the Italian stone pine to be the designated species for the 300 – 800 blocks of East Anapamu Street. This designation remains in place to this day. The question remains as to whether the existing designation of Italian stone pine is still appropriate. Resolution No. 97-131 designates each tree that existed along this stretch of East Anapamu in 1997 as a historic landmark but it does not guide the direction of future plantings along the street. If a change in species is desired, the proposed change would be reviewed and approved by the Parks and Recreation Commission.

NEXT STEPS:

The Department made a presentation to the Historic Landmarks Commission (HLC), on July 17, 2024. HLC had a robust discussion of the trees and provided their unanimous support of continuing the use of Italian Stone Pines along East Anapamu to preserve the character of the street. They acknowledged the challenges that the species presents but felt that the historic nature of the canopy outweighs those challenges. HLC also provided two other suggestions: 1) that the City work to enlarge tree wells along Anapamu to create better conditions for large trees, potentially by eliminating some parking spaces along the road, and 2) that City Council consider an ordinance change to modify SBMC 15.24.060 such that removal of historic or specimen trees would require review by HLC rather than STAC and PRC.

In addition to the July 24 Commission meeting, the Street Tree Advisory Committee will discuss the stone pines on August 1, 2024. As part of that meeting, the STAC will consider whether to propose a new modified species designation. Follow-up meetings will occur on September 5th with the Street Tree Advisory Committee to further review modified or new species designations. On September 26th the Parks and Recreation Commission will review and act if the Street Tree Advisory Committee recommends a designation change. The goal is to make sound decisions that will ensure the success of tree canopy cover for the next several generations with an aim to replant the vacant tree wells along East Anapamu in early 2025.

ATTACHMENT: May 20, 2024, Memorandum to the Parks and Recreation Commission

PREPARED BY: Nathan Slack, Urban Forest Superintendent

SUBMITTED BY: Jazmin LeBlanc, Assistant Parks and Recreation Director

APPROVED BY: Jill E. Zachary, Parks and Recreation Director