

Environmental Quality Commission



REGULAR MEETING MINUTES

Date: 3/27/2019
Time: 6:00 p.m.
City Council Chambers
701 Laurel St., Menlo Park, CA 94025

A. Chair Marshall called the meeting to order at 6:18 p.m.

B. Roll Call

Present: Kabat, London, Chair Marshall, Martin, Payne, Vice Chair Price, Turley
Absent: None
Staff: City Arborist Christian Bonner, Sustainability Specialist Joanna Chen, Acting Building Official Bana Divshali, Sustainability Manager Rebecca Lucky, and Senior Planner Kaitie Meador

C. Public Comment

None.

D. Regular Business

D1. Issue determination on appeal of staff's approval of heritage tree permit for removal of seven redwood trees at 1000 El Camino Real.

Chair Marshall introduced the item.

Sustainability Manager Rebecca Lucky made the presentation (Attachment).

Building owner of 1000 El Camino Real Matt Matteson, structural engineer Greg Wagner, and waterproofing consultant Karim Allana made a presentation (Attachment).

The heritage tree permit appellants, Jen Mazzon, Peter Edmonds, and Judy Rocchio made a presentation (Attachment).

- Margaret Melaney spoke in support of the appeal to preserve the trees.
- John O'Brien spoke against the delay in the heritage tree appeal process timeline.
- Steve Pursell spoke in support of the appeal to preserve the trees.
- Jane David spoke in support of the appeal to preserve the trees and suggested bringing in additional expertise to find feasible alternatives.
- Darshama Greenfield spoke in support of the appeal to preserve the trees.
- Angela Evans and Ella spoke in support of the appeal to preserve the trees.
- Tim Norton spoke against the appeal to preserve the trees to reduce the safety risks associated with the building.
- Joe Nootbaar spoke against the appeal to preserve the trees, and suggested planting native trees (e.g., coast live oak).

- Peter Edmonds spoke on a letter sent earlier in the week and supported the appeal to preserve the trees.
- Maritza Longland spoke in support of the appeal to preserve the trees.
- Jeff Hardy spoke in support of the appeal to preserve the trees and the proposed alternative No. 3.
- Angela Hayes requested more details on the proposed 14 replacement trees.
- Michelle Beauchamp spoke in support of the appeal to preserve the trees.
- Henry Riggs spoke against the appeal to preserve the trees.
- Charles Albanese spoke in support of the appeal to preserve the trees.
- Pasha Sadri spoke in support of the appeal to preserve the trees and suggested looking for alternative transportation options to reduce parking spaces.

ACTION: Motion and second (Marshall/Kabat) to deny the appeal and uphold staff's decision to approve the heritage tree removal permit application for seven coast redwood trees at 1000 El Camino Real based on No. 2 heritage tree ordinance removal criteria to repair the building and No. 8 removal criteria that there were no reasonable and feasible alternatives presented that could preserve the trees, passed (4-3, Martin, London, and Payne dissenting).

The Environmental Quality Commission took a 20-minute recess.

- D2. Approve the February 27, 2019, Environmental Quality Commission meeting minutes.

Chair Marshall introduced the item.

ACTION: Motion and second (London/Marshall) to approve the February 27, 2019, Environmental Quality Commission meeting minutes, passed unanimously.

E. Reports and Announcements

- E1. Commission reports and announcements

Chair Marshall provided a verbal update on coordinating with the Boys and Girls Club for Arbor Day and confirmed it will occur during the second week of April.

- E2. Staff update and announcements

Staff updated the commission on the County's proposal for local building energy codes (Reach codes).

- E3. Future agenda items

Commissioner Kabat provided a verbal interest in discussing the reach codes.

E. Adjournment

Chair Marshall adjourned the meeting at 10:12 p.m.

Minutes prepared by Joanna Chen.

These minutes were approved at the Environmental Quality Commission meeting of April 17, 2019.



1000 EL CAMINO HERITAGE TREE APPEAL

The background of the slide is a photograph of a grassy field with a wooden fence. In the distance, two people are visible. The title "1000 EL CAMINO HERITAGE TREE APPEAL" is overlaid on a teal banner. Below the banner is a close-up image of a wooden fence post and a gravel path.

REPAIR PROJECT BACKGROUND

- Building was built in the early 1980s
- The building supports (cables/tendons) located in the parking garage have water damage, and need prompt repair
- Install new waterproof barrier



Photo 6 - Exposed 9/1 tendon showing signs of corrosion



REASON FOR REQUESTING TREE REMOVALS

- Repair work and installation of waterproof barrier would occur within major root zone of 7 coast redwood trees
- Root removal within three times the diameter of a tree impacts stability and is not recommended by standard arboricultural practices



THICK TANGLE OF TREE
ROOTS OVER THE PODIUM
AND UNDERGROUND GARAGE
PODIUM SLAB WATERPROOFING



THICK TANGLE OF TREE
ROOTS OVER THE PODIUM
AND UNDERGROUND GARAGE

PODIUM SLAB WATERPROOFING

TREE HISTORY, PRESERVATION, AND REPLACEMENTS

- Trees voluntarily planted by the developer
- 76 trees on or near the site and 40 are heritage trees
- Tree replacement for this project is 2:1
- Plans were revised to preserve trees
- Replacement trees will be a mixture of Birch, Olive, and Japanese Maple trees



PROJECT APPROVAL PROCESS AND APPEAL

- October 2018- Planning Commission approval
- December 2018- community members raised concerns about the proposed tree removals
- January 2019-informational meeting and appeal filed
- Are there feasible and reasonable alternatives that could preserve the trees?





APPEAL PROCESS CONTINUED

- Involved staff from three departments: Community Development, Public Works, and the City Manager's Office
- Late January:
 - Five alternatives identified for further exploration
 - Independent structural engineer and arborist hired for peer review
- Late February :
 - Staff met with appellants to outline the five alternatives being explored based on January informational meeting
 - Requested that any additional alternatives be submitted by March 4 (one was provided)
 - Structural engineer peer reviewer submitted an alternative to explore
- March:
 - City staff, permit applicant, peer reviewers, and appellant met using conflict resolution facilitator
 - Appellant clarified March 4th submittal
 - Submits another alternative on March 14th

ANALYSIS OF ALTERNATIVES

- Eight alternatives were analyzed
- Alternatives analysis involved considering the following:
 - Ability to preserve the trees and maintain overall good health
 - Legal restrictions or violations of other local, regional, and state rules/regulations
 - Prompt repair or new structural support within the next few months to reduce life and safety risks
 - Cost of the alternative in relation to the value of the trees
- The trees proposed for removal are estimated to have a value of \$157,500





ALTERNATIVES EXPLORED

1. Abandon parking garage and build new parking structure
2. Retrofit the building with steel beams in the parking garage
3. Remove the trees in phases
4. Repair the water damage without impacting the trees
5. Relocate the trees
6. Cut the tree roots and brace the trees to the building (structural engineer peer reviewer)
7. Remove existing parking spaces and add walls to provide new support (March 4th alternative submitted by appellant)
8. Modification of No.7 by increasing the width of existing columns in the parking garage to provide more support.



NO.7 REMOVE PARKING AND ADD WALLS

- Would not require trenching or installing waterproof barrier
 - Diverts water elsewhere
 - Provide additional support by building walls in existing parking spaces
- Removes required parking needed for this type of development.
- Work does not align with standard engineering practice, making it costly
 - Estimated to be 7-8 times more than original project proposal valued at \$1 million
 - Difficulty in finding an engineering firm to take on the project given current market conditions
- Requires relocating tenants and possible loss of tenants
- Could have legal implications in lease agreements
- Not recommended due to infeasibility and parking changes would delay prompt repair of the project

NO.8 WIDEN PARKING COLUMNS

- Similar to No.7 but requires less complexity
- Would still remove required parking and be costly
- Cable/tendon support would still be needed between columns, requiring similar repair work as the original proposal.
- Not recommended due to infeasibility





CONCLUSION AND RECOMMENDATION

- Peer reviewers found that the quality of information submitted by the permit applicant sound and concurred with major findings of the permit applicant
- The heritage tree ordinance requires staff (and other decision making bodies) to make removal decisions based on eight criteria of the ordinance



CONCLUSION AND RECOMMENDATION

- Three of the eight criteria were used to evaluate this decision:
 - The condition of the trees with respect to disease, danger of falling, proximity to existing or proposed structures and interference with utility services;
 - The necessity to remove the trees in order to construct proposed improvements to the property;
 - The availability of reasonable and feasible alternatives that would allow for the preservation of the trees.
- For reasonable and feasible alternatives, the following additional criteria was used for this project:
 - Ability to preserve the trees and maintain good health
 - Legal restrictions or conflict with other rules and regulations
 - Prompt repair or new structural support within the next few months to reduce life and safety risks
 - Cost of the alternative in relation to the value of the trees
- Based on the information and evidence submitted to date, staff has not been able to identify a reasonable or feasible alternative and recommends the trees be removed



EQC DETERMINATION PROCESS

- Make findings according to the ordinance's eight decision making criteria
- Address the appeal request to determine if any of the options are feasible and reasonable
- Discussion guidance:
 - Does the commission find that one or more of these alternatives are reasonable and feasible?
 - If so, which ones are they?
 - Why does the commission deem them feasible and reasonable?
 - Does the commission find there are no feasible or reasonable alternatives?
 - If so, why?



THANK YOU

March 27, 2019

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1000 El Camino Real

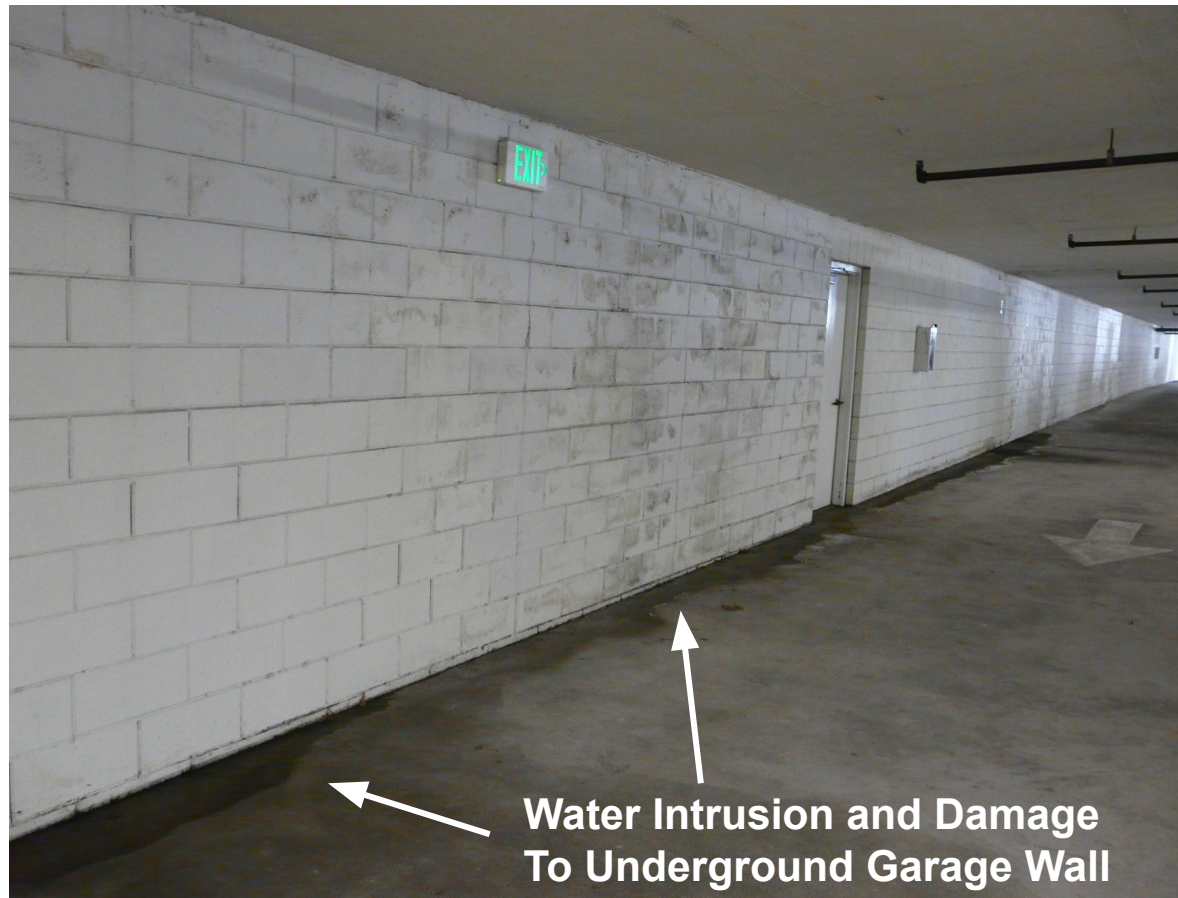
ENVIRONMENTAL QUALITY COMMISSION HEARING

3-27-2019

1000 EL CAMINO REAL BUILT IN THE 1980s



Existing Conditions



Post-tensioned cable corrosion



Existing Conditions



Underground Garage Edge



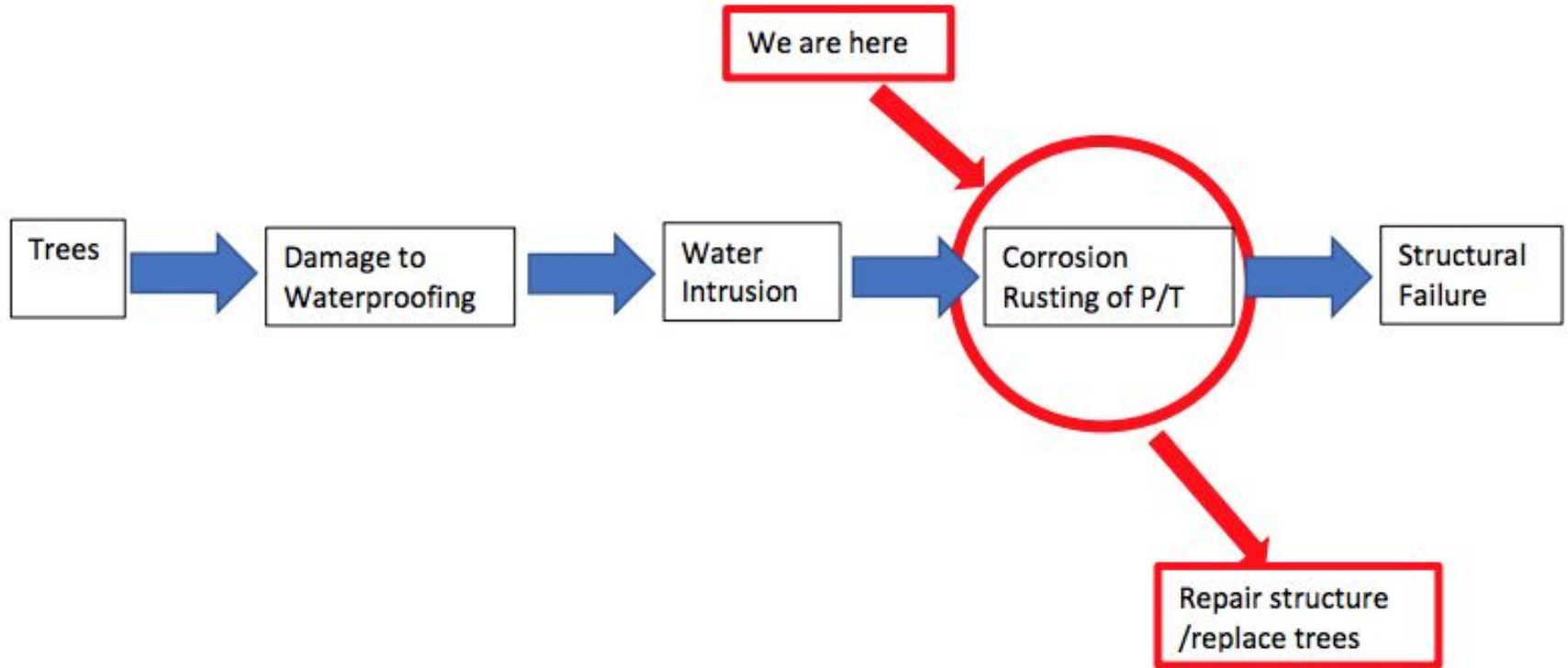
Waterproofing Failed

CONSTRUCTION IN THE 1980s





The Problem



Saving the Trees Along Ravenswood



Many Experts Reviewing The Problem Together

1000 El Camino Real Consultants

City of Menlo Park

Karim Allana - Allana Buick & Bers (Waterproofing Consultant)
(Onboarded 5-6 years ago)

Greg Wagner - KPFF Engineers (Structural Engineer)

Steve Batchelder - SBCA Tree Consulting (Arborist)

NOVO Construction - General Contractor

Shwager Davis - Post-tensioned Cable Contractor

Carducci & Associates - Landscape Architect

Doug - City Peer Review Structural

Christian - City Arborist

Jim - City Peer Review Arborist

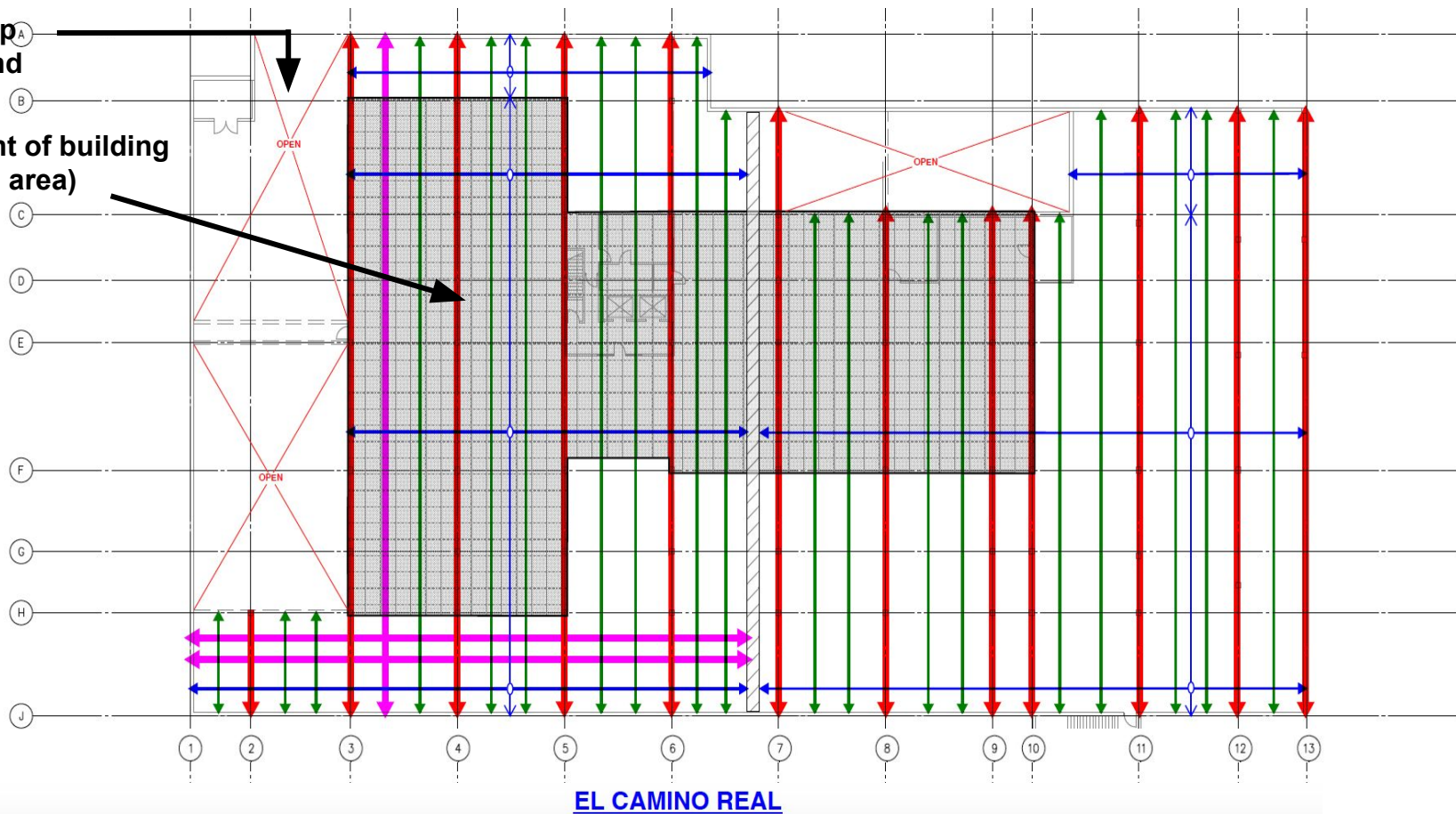
Post-Tensioned Cable Podium Slab

— Known Broken Post-tension Cables
 — Other Existing Post-tension Cables

Entrance Ramp
to Underground
Garage

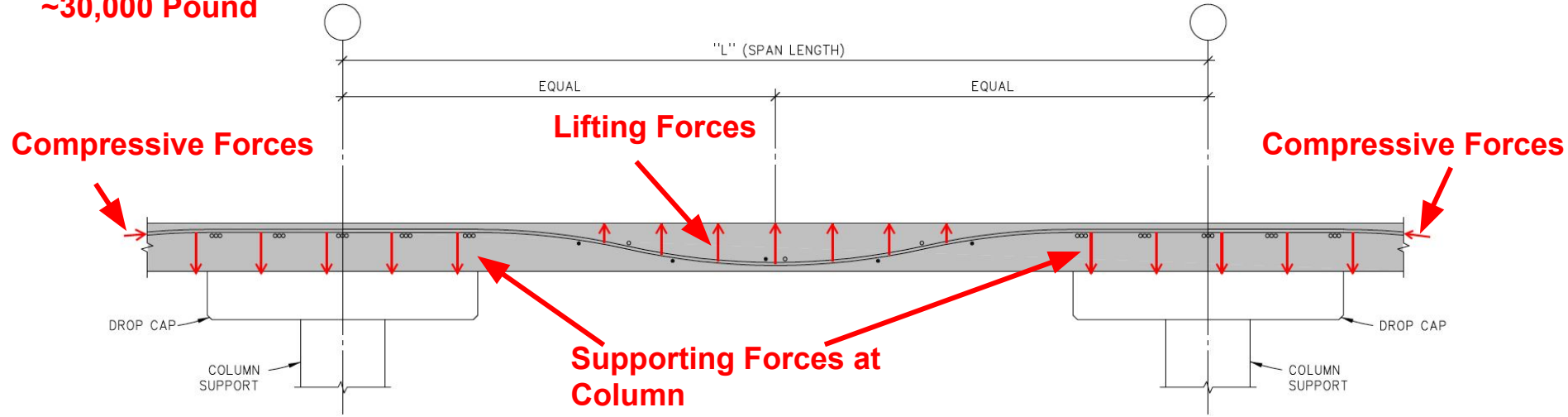
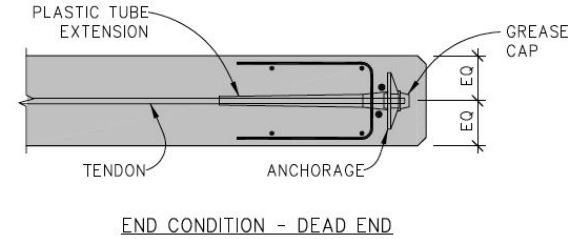
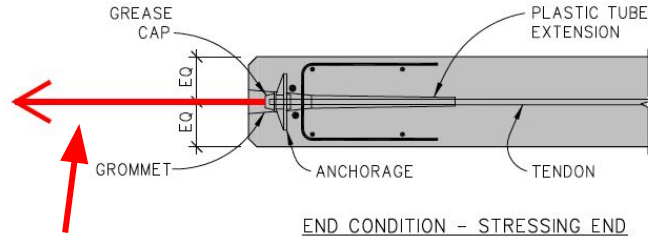
Footprint of building
(shaded area)

RAVENSWOOD AVENUE



Post-Tensioned Cable Structural System

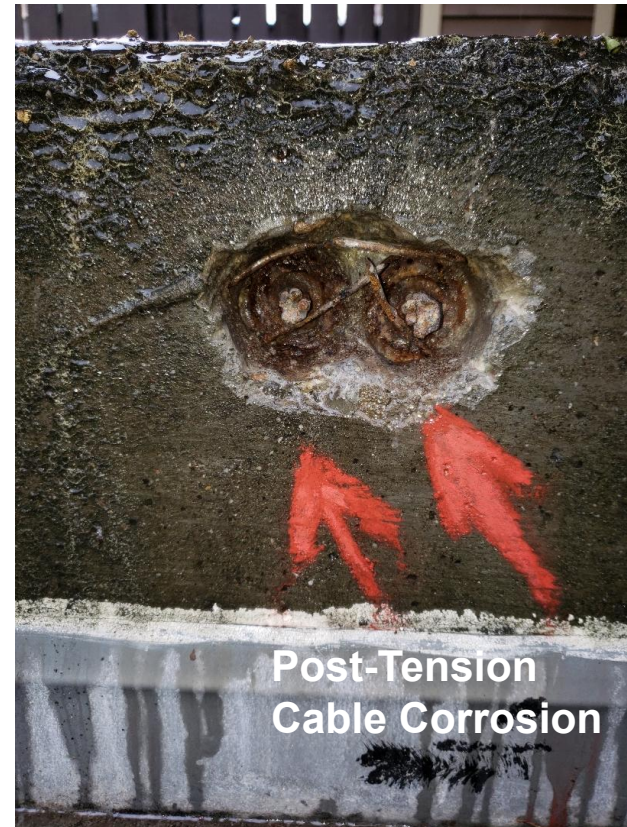
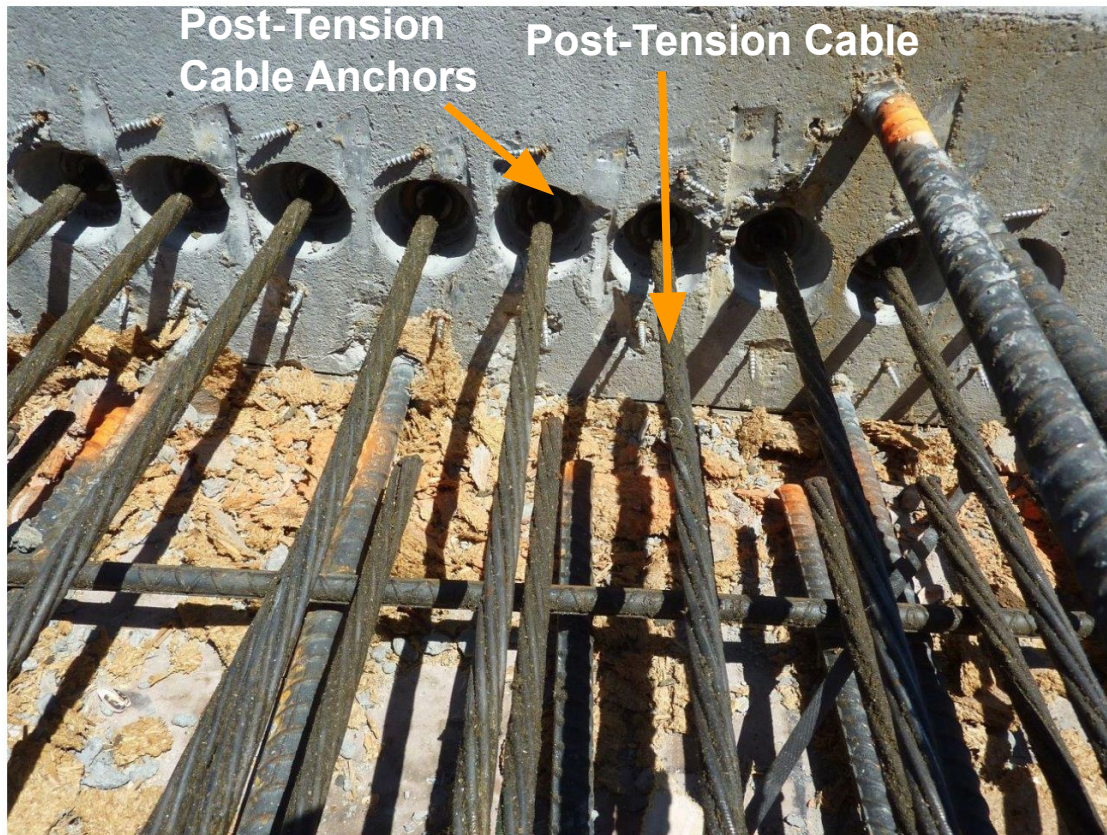
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POST-TENSIONED TENDON PROFILE

SCALE: NONE
SK

Post-Tensioned Cables and Corrosion

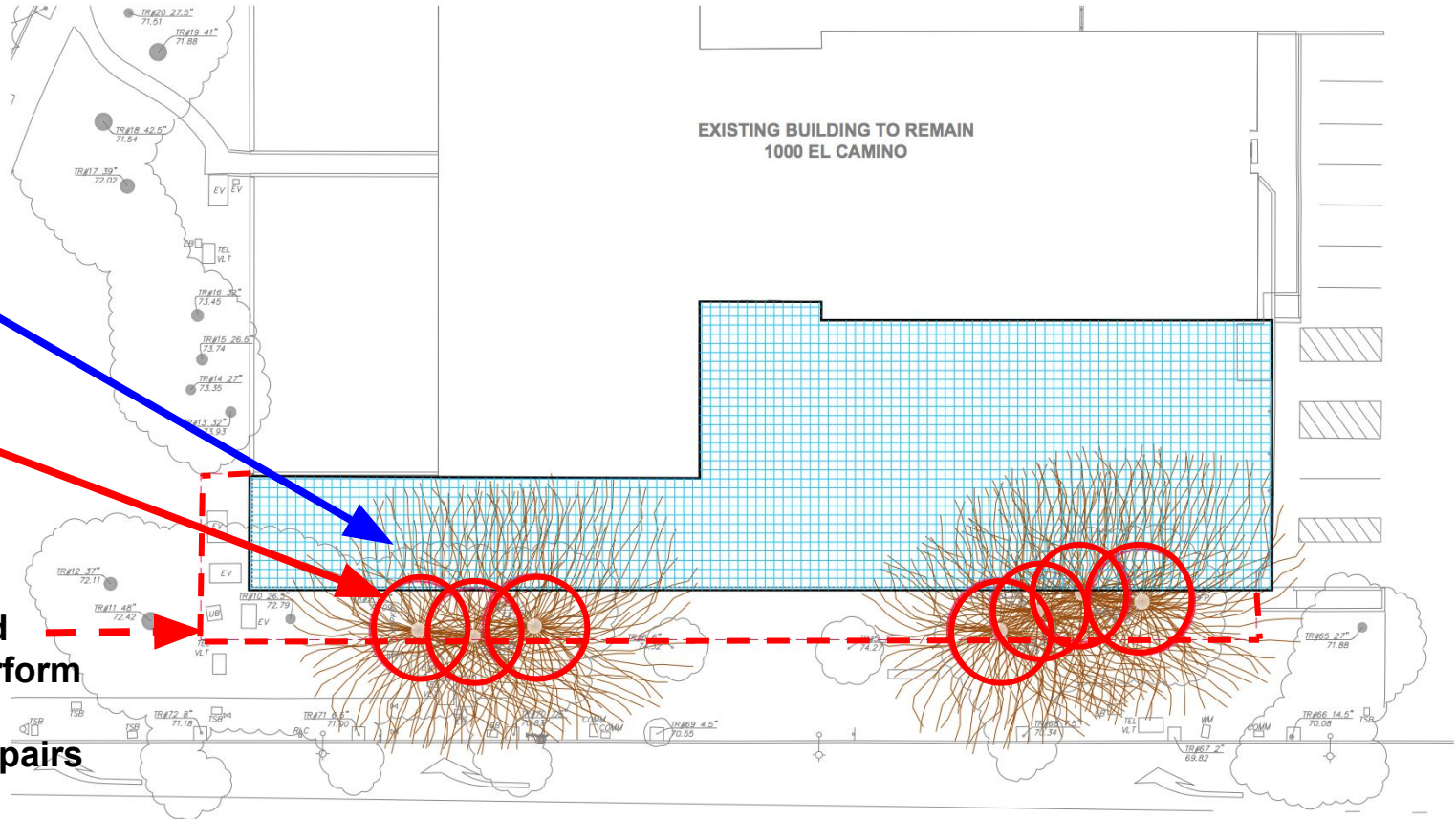


Why Water Is A Problem For Post-Tension Slab And Retaining Walls

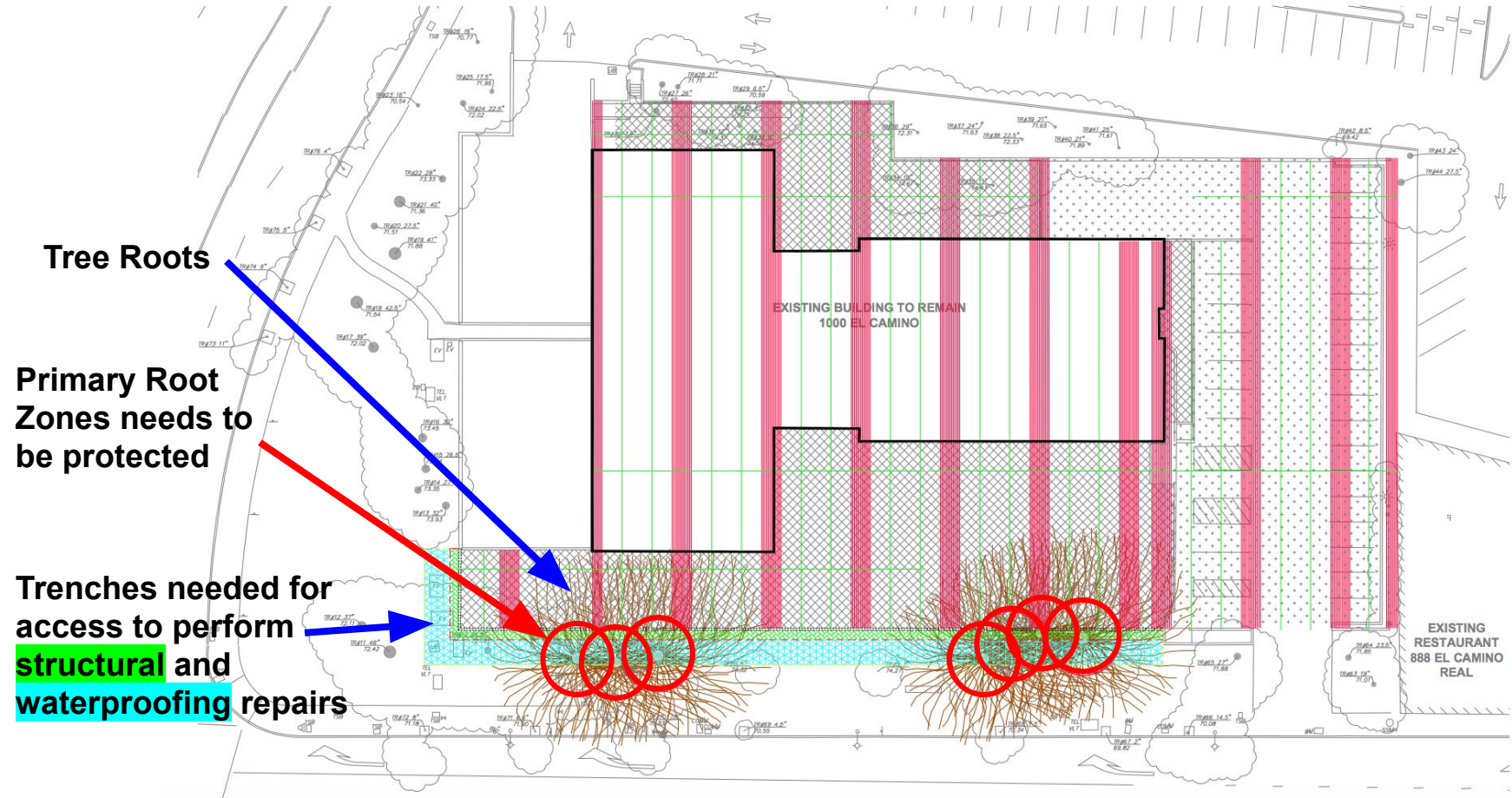
Tree Roots

Primary Root Zones needs to be protected

Trenches needed for access to perform structural and waterproofing repairs



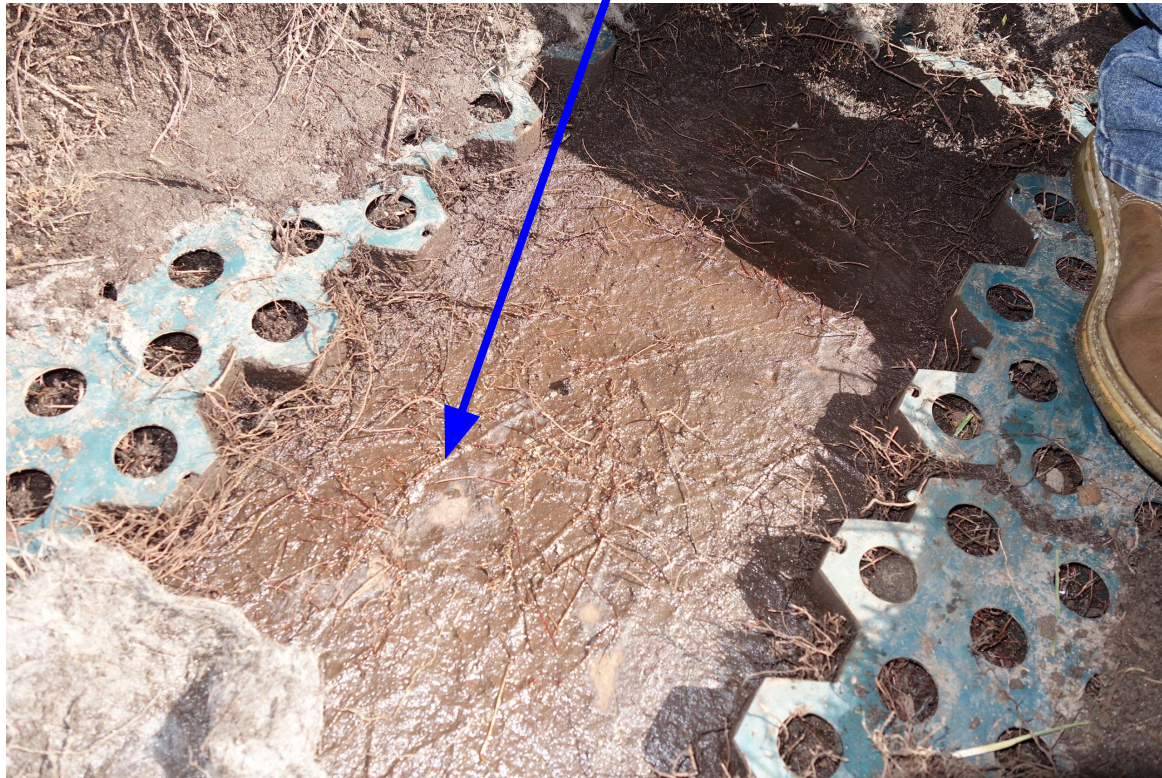
Why Water Is A Problem For Post-Tension Slab And Retaining Walls



Existing Conditions



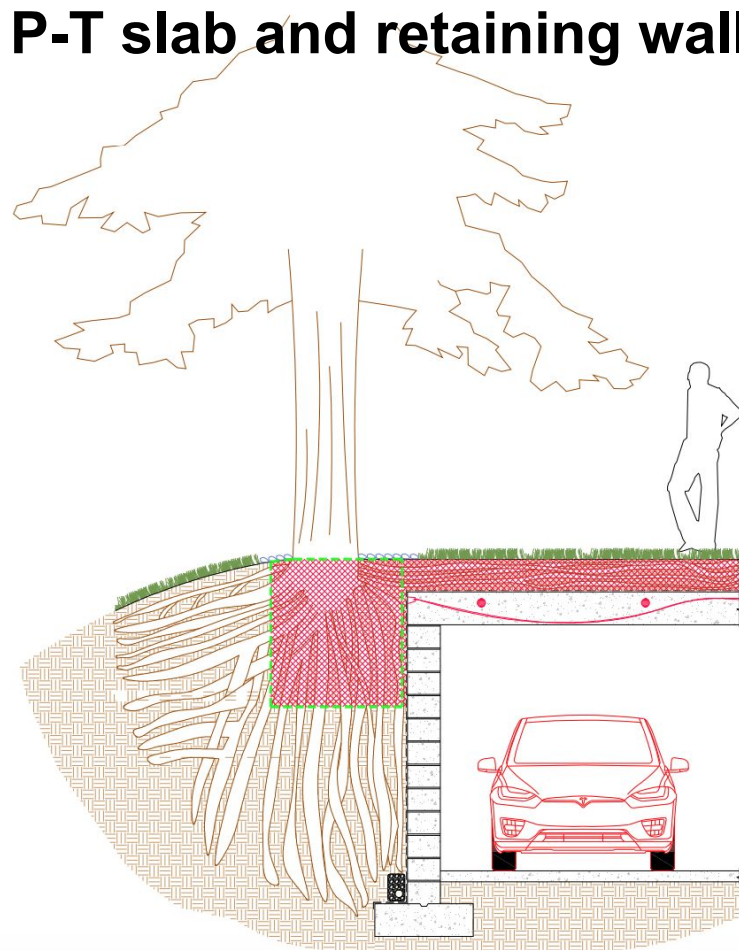
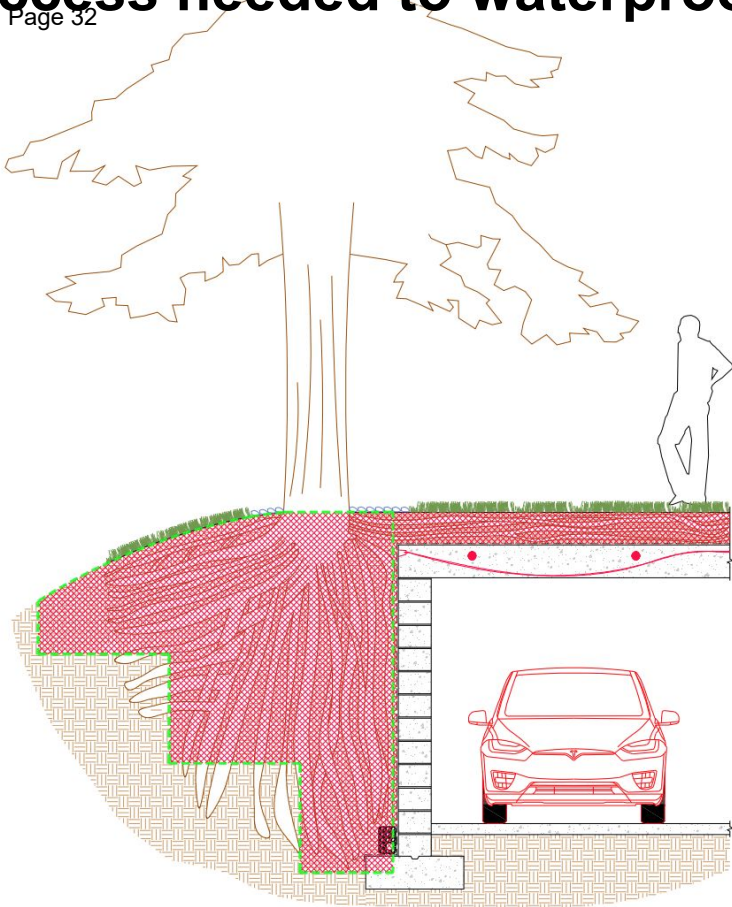
Underground Garage Edge



Roots Under Damaged Waterproofing

WATERPROOFING FAILED

Access needed to waterproof the P-T slab and retaining walls



To be “feasible”, an alternate option must:

- **Allow for the complete inspection and proper repair of the structure as soon as possible**
- **Allow for the comprehensive waterproofing of the structural slab and basement walls to protect the structural components from destructive rust in the future, and**
- **Ensure that any trees that remain are healthy, have a likelihood of remaining so, and are not at significant risk of toppling from weakened root structures and wind forces**

All 8 Alternative Options Reviewed

Option 1 - Building a new parking garage on a neighboring property to replace the 150 parking stalls in the existing underground garage at 1000 El Camino Real. (This requires option 2 as well)

Option 2 - Structurally Retrofit the Podium with Steel Beams (must relocate utilities in ceiling of garage)

Option 3 - Phasing Tree Removal to Incrementally Evaluate Extent of Damage before removing all Trees

Option 4 - Repair New Waterproofing and Structural Systems Without Removing the Trees

Option 5 - Relocating Heritage Redwood Trees

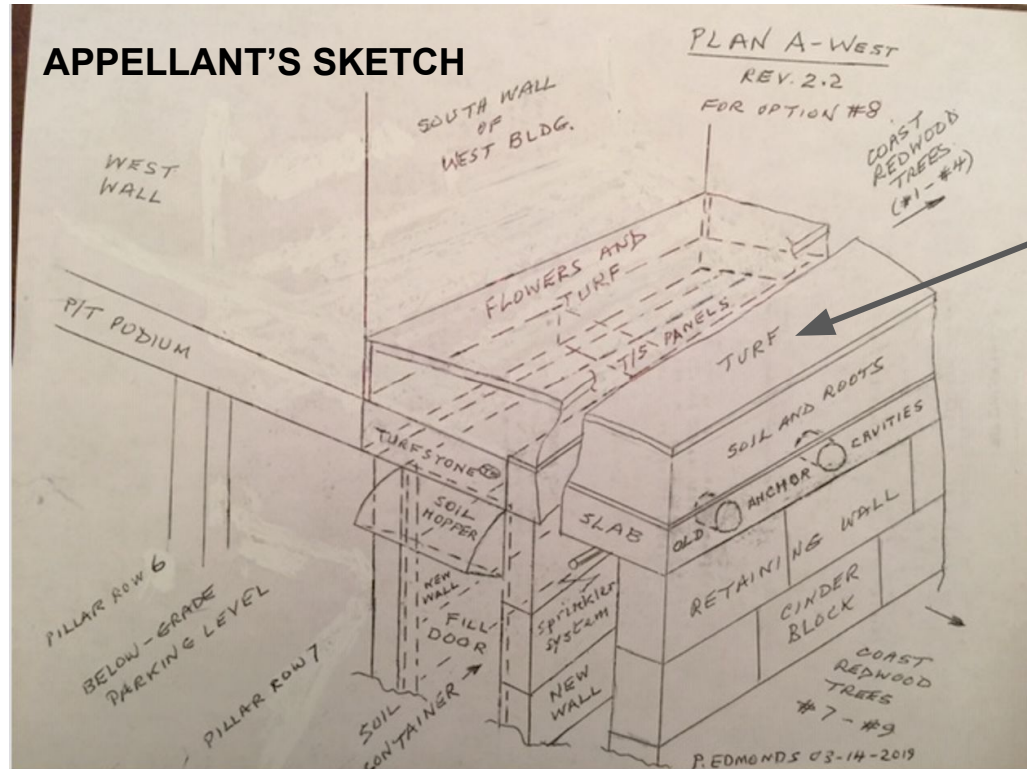
Option 6 - Cutting the Tree Roots, then leaving the Trees in place.

Option 7 - Appellant's suggestion of Saw-cutting Podium Slab and relocating the cables with a new retaining wall within the garage

Option 8 - Saw cut but remove cables and structural retrofit garage (which would require option 2)

Alternate Options 7 and 8

Appellant's suggestion of Saw-cutting Podium Slab and relocating the cables with a new retaining wall within the garage

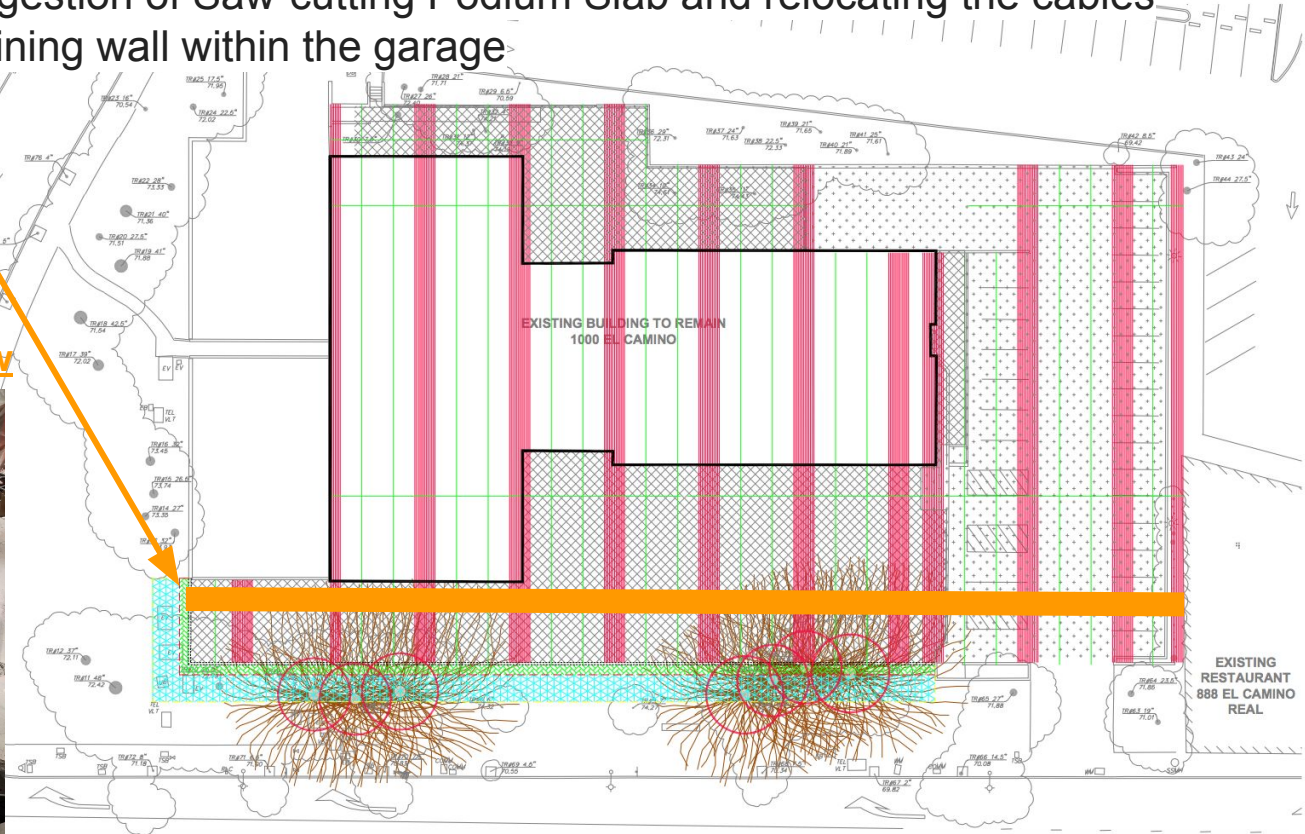


Alternate Options 7 and 8

Appellant's suggestion of Saw-cutting Podium Slab and relocating the cables with a new retaining wall within the garage

Cut podium concrete
and relocate
post-tensioned
structural cables

Example image below



Alternate Option 2

Structurally Retrofit the Podium with Steel Beams

Structural steel throughout garage would block the clearance for cars to enter garage. This would require us to go with option 1 to build a new parking



Significant problems with Options 7 and 8

- **Not industry best practices**
- **Inherently unsafe**
- **Involve extreme risk to the structural integrity of the building**
- **Work is sufficiently dangerous that the tenants must completely vacate the premises for two months**
- **We do not have the legal right to force our tenants to vacate and then move back into the building**
- **Post-Tension cables are each under 30,000 pounds of tension, and the saw cutting process is risky**
- **Difficulty securing contractors with the expertise and reputation who will be willing to design and oversee such work**
- **Importantly, Options 7 and 8 result in the loss of at least 29 parking stalls, a significant portion of the building's parking**
- **In essence, the building becomes unsaleable and unfinanceable.**
- **Cause code compliance issues, including the loss of a code-required emergency stairwell and interference with the building's main utility connections**
- **Fail at least two of the three feasibility requirements outlined above. Structurally, the options are highly complex and risky.**

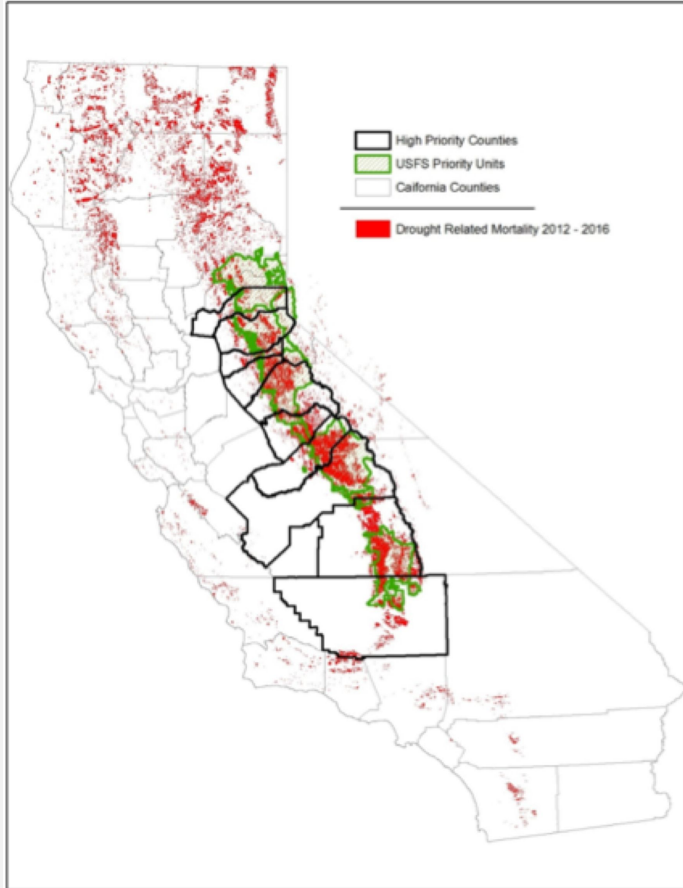
Heritage Tree Preservation in Action

Think of the long haul, don't let the trees fall.



March 27, 2019

Millions of trees have died in California since 2010



Per Sierra Nevada Conservancy estimates, California drought-related tree mortality has resulted in **200 million dead trees** since 2010

Image from Tree Mortality Task Force 2017, "Tree Mortality: Facts and Figures"

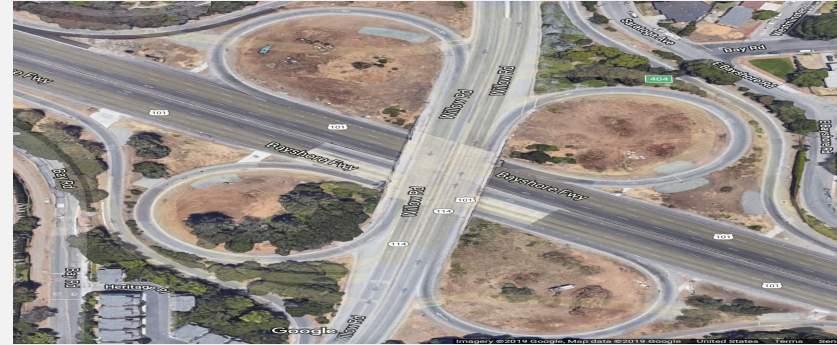
Hundreds of Menlo Park heritage trees are cut down **every year**

Example: Intersection of 101 and Willow Road

Before tree removal (June 2017)



After tree removal (December 2017)



~700 heritage trees were cut down in Menlo Park in 2018

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These 7 heritage trees are special

Facts about these 7 redwoods at the center of Menlo Park (1000 El Camino and Ravenswood):

Species	<i>Sequoia sempervirens</i>
Age	about 40 years
Average Height (max)	85 feet (366')
Average Diameter (max)	35''- 40'' (24')
Average Life Expectancy (max)	500-700 year (2,000 years)
Average Carbon Sequestration Potential	roughly 800 tons CO ² per tree or 5,600 tons

Data source: Sempervirens.org



These 7 heritage trees are **valuable**

Benefits of these 7 redwoods to our community that weigh heavily in favor of preservation:

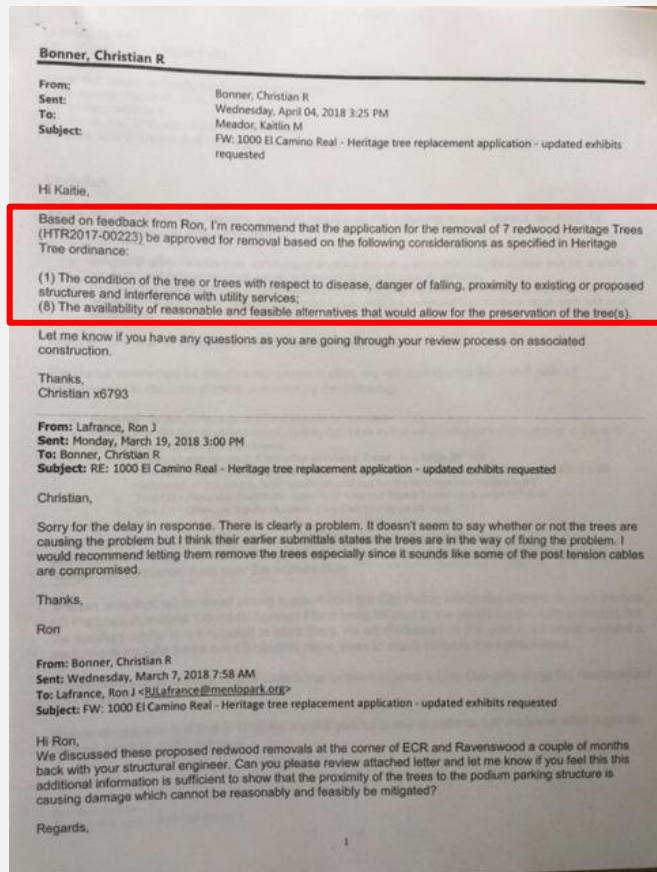
- Carbon sequestration in a climate crisis era
- Downtown and neighborhood beauty
- Air and noise pollution mitigation
- Habitat for numerous species
- Calming effect for a hectic world
- Increased property values
- Vital for a Tree City USA
- Shade in summer



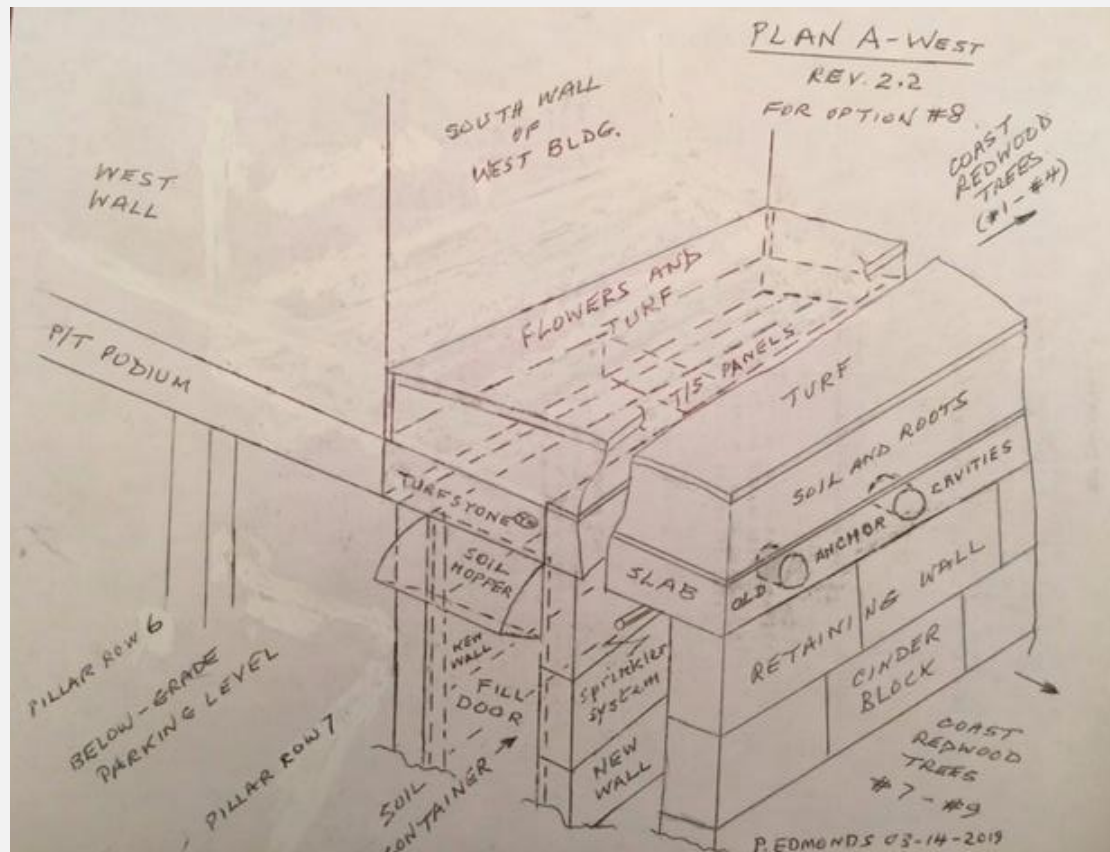
The initial tree removal approval was made on 2 FALSE premises

Initial approval of the tree removal was based on two assertions that have proved to be incorrect:

- (1) Condition of the trees with respect to; disease, danger of falling, proximity to existing or proposed structures and interference with utility service – **FALSE - The trees are currently not diseased, not in any danger of falling, not within proximity to existing or proposed structures and they do not interfere with utility services.** As a matter of fact, they are healthy and thriving.
- (8) No availability of reasonable and feasible alternatives that would allow for preservation of the trees or feasible alternatives to removing the trees – **FALSE - There are alternatives for repairing the building structure without endangering the trees.**



Viable alternatives are deemed “infeasible” only because they cost \$\$



Options #7-8 would preserve all the trees while resulting in building repair cost increases and parking space reduction in the building's underground parking garage.

The building structure repair solution should be designed around preserving the TREES, not the PARKING SPACES.

These 7 heritage trees are ~~valuable~~ invaluable to our community

Planted on city-owned land 40 years ago in the heart of Menlo Park, these 7 indigenous trees are an invaluable asset to all of us and an invaluable legacy to many future generations.

Please stand with the trees and preserve the Environmental Quality of Menlo Park!



Key considerations for EQC deliberation:

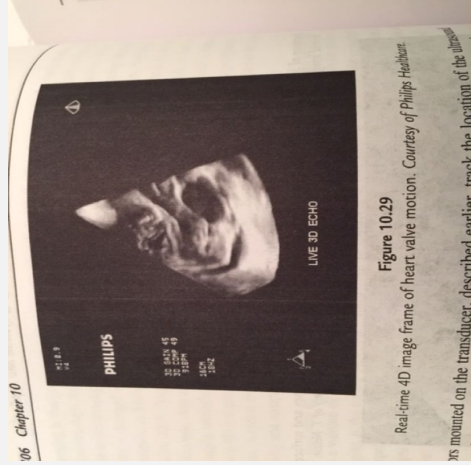
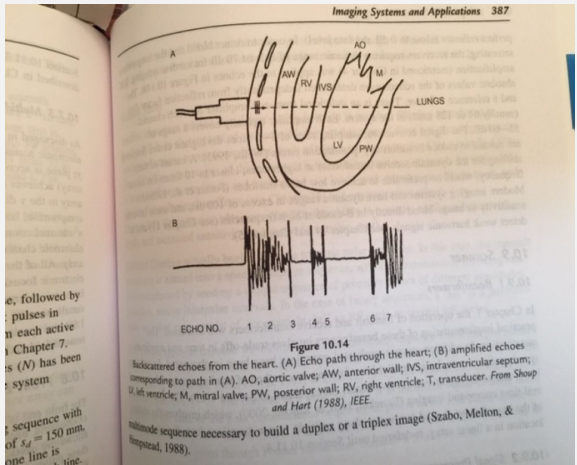
1. About structural engineering
2. Different premises & approaches
3. Principal technical features
4. Economic valuation vs. amenity loss
5. Parking space loss vs. amenity loss
6. Reconsideration of Option 2
7. Transplantation
8. Staff report issues



STATICS

- Moduli of Elasticity
- Stress / Strain
- Force / Displacement
- Push / Yield

DYNAMICS





中国中央电视台

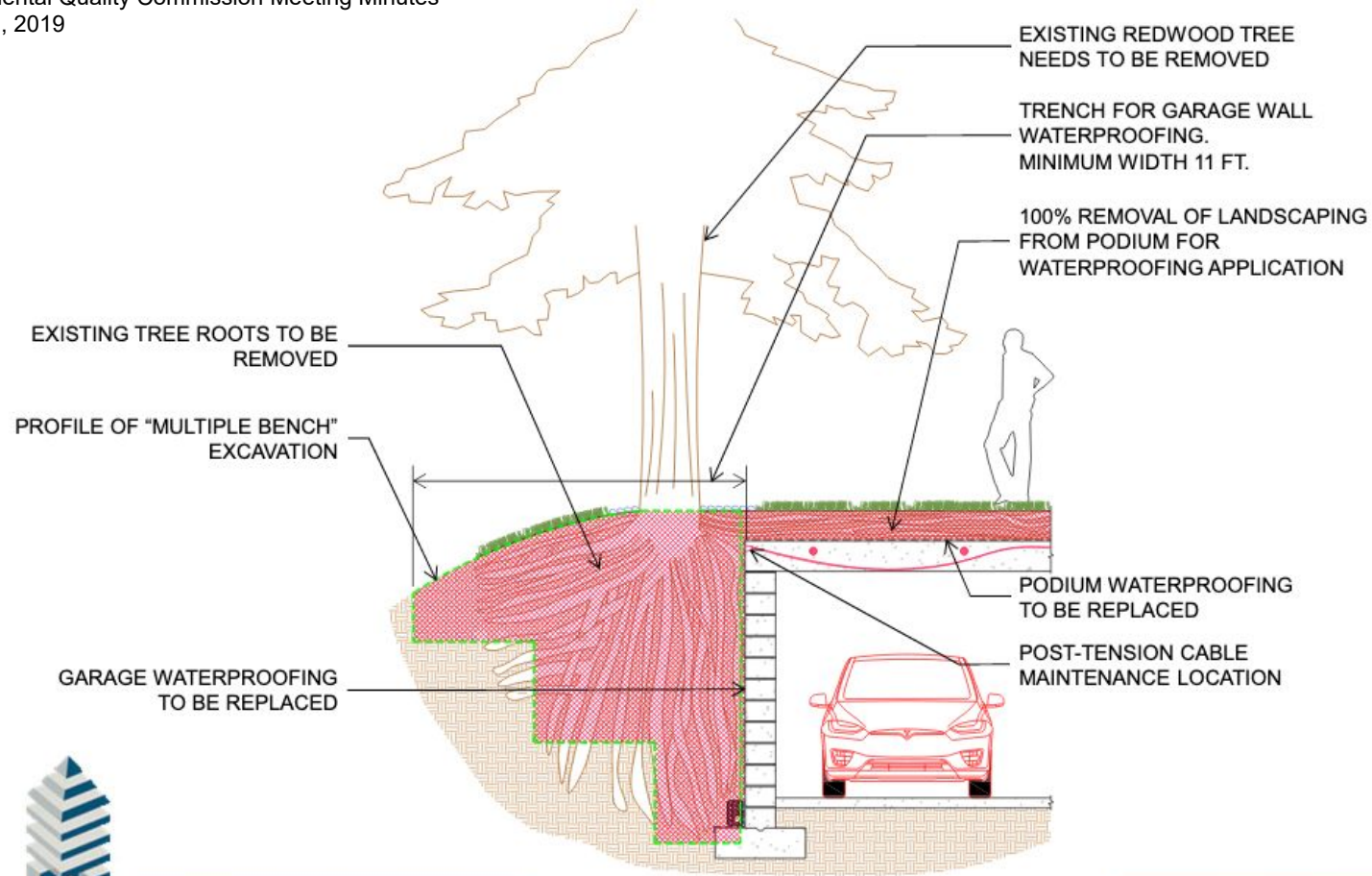


The China Central Television Headquarters

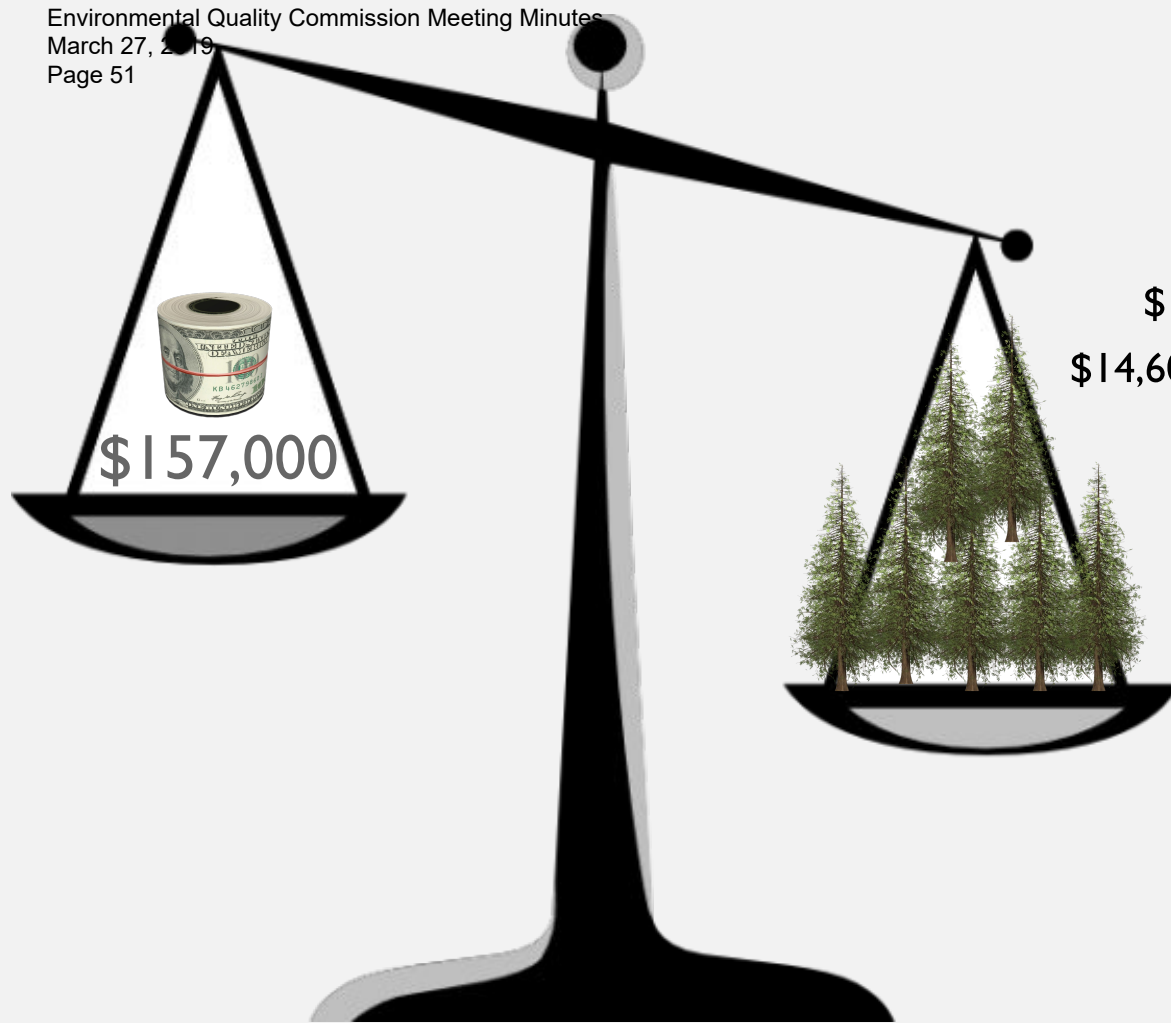
Country	China
First air date	2 September 1958
Headquarters	CCTV Headquarters, Beijing



(T.L.Szabo, 2ndedn. 2014)







\$1 per person per day

\$365 per person per year

\$14,600 per person for 40 years

\$14,600,000 per 1000 people for 40 years

feasible adjective

fea·si·ble | \ 'fē-zə-bəl  \

Definition of *feasible*

- 1 : capable of being done or carried out
// a feasible plan
- 2 : capable of being used or dealt with successfully : SUITABLE
- 3 : REASONABLE, LIKELY
// gave an explanation that seemed feasible enough

reasonable adjective

rea·son·able | \ 'rēz-nə-bəl , 'rē-zən-ə-bəl\

Definition of *reasonable*

- 1
 - a : being in accordance with reason
// a reasonable theory
 - b : not extreme or excessive
// reasonable requests
 - c : MODERATE, FAIR
// a reasonable chance
// a reasonable price
 - d : INEXPENSIVE
- 2
 - a : having the faculty of reason
 - b : possessing sound judgment
// a reasonable man

