

ARBORIST TREE ASSESSMENT and APPRAISAL REPORT v2

482-486 Hamilton Avenue Palo Alto, California

Submitted to:

Mr. Khoi Le Le Architecture 120 Bloomfield Road Burlingame, CA 94010

Completed by:

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March 29, 2019 v1 December 3, 2019 v2

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Contents

Introduction Background. Assignment Survey Methods Appraisal Method Observations and Discussion

Conclusions _ Recommendations... Literature Referenced Evaluation Factors for Determining

Overall Tree Condition Suitability Factors for Tree Preservation

Tree Appraisal Worksheet Appendix 1

Appendix 2 Tree Protection Plan Street Tree Protection Specifications

Detail 605 - Tree Protection During Construction...

Appendix 3 Tree Location Map

Attachments Certification of Performance Terms and Conditions...

482 - 486 Hamilton Avenue

Palo Alto

Consulting Arborist Narrative

ART SCIENCE - CRAFT

Fujiitrees Consulting, LLC (FTC) last visited 482-486 Hamilton Avenue on March 18, 2019. The consultant has no knowledge of current site and tree conditions, but was informed by the Client that all trees covered in this report remain and the surrounding conditions are unchanged. This updated report was revised to only address possible construction impacts to an existing tree located near a redesigned garage entrance.

Introduction

<u>Background</u> Le Architecture (Client) requested Fujiitrees Consulting, LLC (FTC), to assess four trees located on the property known as 482-486 Hamilton Avenue in the city of Palo Alto (City). Future development plans require submittal of an arborist tree report, including a tree appraisal and a tree protection plan to the City Planning and Community Environment

FTC completed a tree report dated March 29, 2019 that was accepted by the Client. It was agreed that FTC completed the requested assignment.

In an email dated November 21, 2019, the Client informed FTC that the original design for a garage entry on Hamilton Ave. was not received well by the Palo Alto Architecture Review Board.

In response to the Palo Alto Review Board's concern over the garage entry, the Client proposed entry to the parking garage along Cowper Street and forwarded updated plans to FTC. The curb cut for the garage entry is very close to an existing street tree that FTC assessed in the aforementioned report.

<u>Assignment</u>

To satisfy a request from the City, FTC was asked to identify the subject tree, state the Tree Protection Zone (TPZ) of the subject tree and describe possible construction impacts to the subject tree as a result of the proposed curb cut. The Client asked that the report of March 29, 2019 be properly updated to reflect the new garage entrance design.

Survey Methods

A visual assessment of the trees was made from the ground. No samples were collected for laboratory analysis, the trees were not entered and root collar examinations were not completed as none of these tasks were part of the assignment. Trees assessed in this report were limited to those trees specified by the Client.



Arborist Tree Report v2 482-486 Hamilton Avenue Palo Alto, California

Blue aluminum numerical tags were affixed on the north facing side of the trunk approximately six feet above grade when physically possible. The numerical sequence of tag numbers was one through four.

Trunk diameters of trees were measured with a diameter tape at the height of 54 inches (4 feet 6 inches) above grade. The height of trunk measurement was specified in the Palo Alto Tree Technical Manual.

Tree height and crown radius were approximated and are accurate within five feet. A laser range finder was used to sample trees in order to gauge the accuracy of the approximated height and crown widths.

<u>Appraisal Method</u>

In order to determine the value of the trees located on the property, the City of Palo Alto required submittal of an appropriate tree appraisal. An appraisal using the Trunk Formula Method as specified in the <u>Guide for Plant Appraisal</u> 9th Edition (Guide) prepared by the Council of Tree and Landscape Appraisers (CTLA) and published by the International Society of Arboriculture (ISA) was completed.

Although a newly released 10th Edition of the guide is available, FTC has decided that the newly introduced concepts should be tested in the real world prior to use with FTC clients. That said, FTC was deposed and testified as an expert witness for tree appraisals employing the 9th Edition of the Guide.

Observations and Discussion

On March 18, 2019, FTC visited the project site, 482-486 Hamilton Avenue. An existing commercial building housed a cleaners and restaurant with one store front up for lease.

The tree species and (occurrence) of the five assessed trees contained in this report include: flowering pear, Pyrus calleryana (2) and holly oak, Quercus ilex (2) and Chinese pistache Pistacia chinensis (1).

All five trees are located between the sidewalk and curb. It is FTC's understanding that these are publicly owned trees (street trees).

<u>Tree 1</u> is a mature flowering pear located in a planter strip shared with utility vaults. (Photos 1&2) The planter strip is approximately 4.5 feet by 23.5 feet. Vegetation and debris prevented an accurate measurement. Ivy covering the trunk obstructed a measurement of the trunk diameter. (Photos 1 & 2) Cocoons were observed on the trunk.



FTC | 2 of 26

Arborist Tree Report v2 482-486 Hamilton Avenue Palo Alto, California

Warning Sign_

Tree Assessment Chart

In November 2019, FTC was informed that a curb cut was proposed within two feet of the trunk as part of installing a new driveway entrance for the proposed structure. FTC was also informed that an earlier plan to install the driveway on the Hamilton side of the property was not received well by the Palo Alto Architecture Review Board.

According to the site plans, an existing water service and backflow prevention device are located in the area of the proposed driveway.

(Photo 3) This tree was installed in a 3 foot by 3 foot tree well and covered with a tree grate. (Photo 4) Cocoons were also observed on the trunk. <u>Tree 3</u>, a mature holly oak displays a high canopy that was pruned to be clear of the

store front signs. (Photo 5) Much of the foliage is covered with black sooty mold. The

planter strip measures approximately 3 feet 11 inches by 7.5 feet. At one point the

Tree 2 is a younger flowering pear located on the Hamilton Avenue side of the property.

planter narrows to 2 feet 11 inches. (Photo 6) <u>Tree 4</u> is a younger holly oak also afflicted with black sooty mold. The planter strip

its canopy overhangs the property. Its planting strip was not measured.

measures approximately 3 feet 11 inches by 5 feet 3 inches. <u>Tree 5</u> is a mature Chinese pistache. This off-site tree was assessed for the report because

Excavation for the proposed curb cut and driveway next to Tree 1 is well within the Tree Protection Zone (TPZ) of six times the trunk diameter as recommended by the Best Management Practices, (BMP) Root Management (2017) published by the International Society of Arboriculture (ISA). As per ISA BMP's, the minimum TPZ radius for Tree 1 is 10.5

The Excavation will require damaging approximately 40 percent of the root system for Tree 1. Removal of the water service will contribute to this damage. In order to properly install the driveway, this root damage cannot be avoided. The callery pear species is not known to be tolerant of soil disturbances. (Matheny and Clark 1998)

The cocoons observed on the trunks of trees 1 and 2 were left by the western tussock moth (Orgyia vetusta). This pest is most often associated with oaks and is known to defoliate trees when they attack in great numbers. Healthy trees are able to leaf out after the larvae become moths. Biological controls have been used to manage these



FTC | 3 of 26

Arborist Tree Report v2 482-486 Hamilton Avenue Palo Alto, California

Trees 3 and 4 were infested with aphid which excrete a honeydew that drops on leaves, or any flat surface beneath the canopy. Black sooty mold develops on the honeydew but is more unattractive than harmful. Frequent washing of leaves with a high pressure volume of water on a regular basis is one method to manage aphids.

Nothing remarkable was observed on the trunk, limbs and branches of tree 5.

The subject trees were assessed for structure, health and overall condition. Evaluation Factors for Determining Overall Tree Condition – Table 1, defines the characteristics for each rating.

Suitability Factors for Tree Preservation – Table 2, explains the method behind the rating system. This qualitative rating is a contributing factor when deciding the reasonableness of whether to accommodate a tree by design.

The Tree Assessment Chart – Table 3, contains the collected tree data from the subject trees. Data includes tag number, tree measurements, and ratings for structure, health and overall condition with a separate suitability rating for preservation. Entries include the Arborist's comments and recommendations.

The Tree Appraisal Worksheet – Table 4, presents the collected data and trunk formula calculations used to determine tree value.

The anticipated root damage to Tree 1 will jeopardize the health and stability of the tree. The original plan for an entrance from Hamilton Avenue was not received well by the Palo Alto Architecture Review Board. FTC was informed that under the circumstances this was the next best option for a driveway entrance.

In light of this tree species low tolerance of soil disturbances relocating the tree is not a viable option. That said, in order to construct the necessary driveway, Tree 1 should be removed for reasons of safety.

The subject street trees 1 through 5 were determined to be in overall fair condition. Properly applied maintenance practices performed on a regular basis will extend the useful life of the trees. Obviously such tasks are within the purview of the city of Palo Alto.

If future plans involve sidewalk improvements, accepted arboricultural practices encourage larger planting strips or tree wells for street trees 2 and 4.



FTC | 4 of 26

Arborist Tree Report v2 482-486 Hamilton Avenue Palo Alto, California

> The total appraised value for the four trees was determined to be \$16,090. Appraised value of Tree 1 is \$3650. Please refer to Table 4 – Tree Appraisal Worksheet

When the Tree Protection Plan is properly implemented, construction impacts to the subject trees are expected to be greatly minimized.

Recommendations

1. To remove a street tree, authorization is required from the City of Palo Alto prior to scheduling removal operations. Replacement tree requirements and other conditions may apply. It is the responsibility of the Owner to understand and comply with those conditions. Options for consideration:

- i. Upon approval from the City, plant a replacement street tree approximately six feet from the proposed driveway. Possible tree species to consider are the crepe myrtle (Lagerstroemia
- 'Muskogee') or the Eastern redbud (Cercis canadensis).
- ii. Upon approval from the City, plant a replacement tree at an offsite location such as a municipal park.
- 2. The final grading, improvement and construction plans should be reviewed by the Project Arborist prior to the commencement of construction activities in order to update tree protection plans if necessary.
- 3. Authorization is required from the city of Palo Alto prior to scheduling any necessary tree work on the subject trees. Other conditions may apply and it is the responsibility of the Owner to understand and comply with those conditions.
- 4. The Tree Protection Plan (Appendix 2) is to be properly implemented before, during and after construction.
- 5. Questions regarding the information contained in this report are to be addressed to Fujiitrees Consulting, LLC.

Report 2 contains updated findings and recommendations based on what was observable to FTC at the time of the initial site visit and on information currently made available to FTC. This report is provided for the Client to make informed decisions regarding the subject trees contained in this report.



FTC | 5 of 26

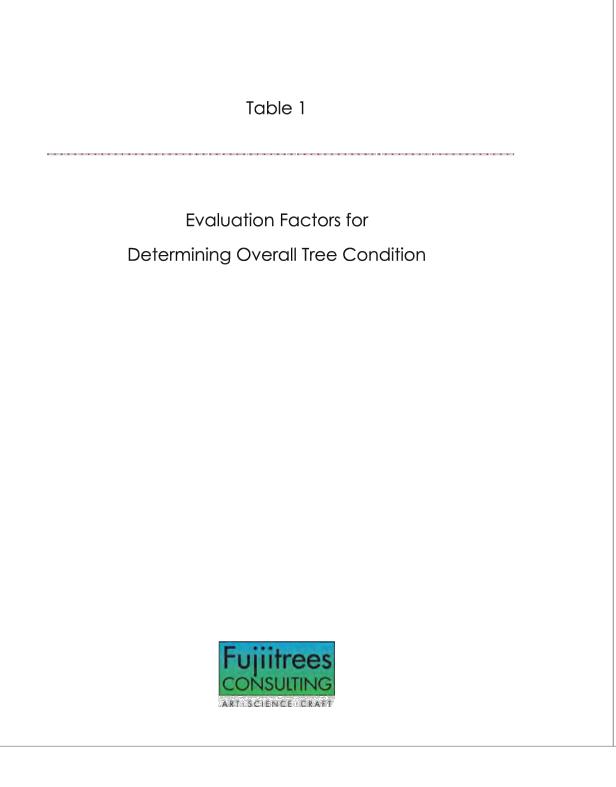
ARBORIST REPORT

486 HAMILTON AVE PALO ALTO, CALIFORNIA

March 10, 2020







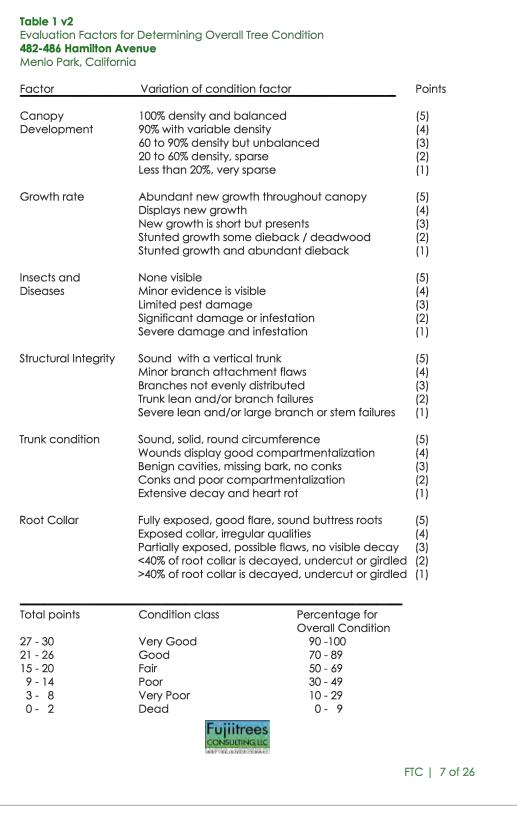


Table 2 Suitability Factors for Tree Preservation

Table 2 v2 Suitability Factors for Tree Preservation 482-486 Hamilton Avenue Mountain View, California

Suitability Factors

To assist in the design process assessed trees have been rated as to suitability for preservation. Factors that influence suitability include:

Health: Overall tree vigor, extension of new growth, proper closing of wounds and the presence of plant pathogens.

Structure: The overall tree architecture, including roots, trunk, limbs, and branches are visually assessed for defects. A defect that can be corrected by proper arboricultural practices may allow a tree to be preserved.

<u>Useful Life Expectancy:</u> The life of a tree is much like a bell-shaped curve; where aging accentuates tree vigor until a point at the top of the curve where aging now reduces tree vigor and decline begins. A species may be long lived but have a poor structure that is prone to fail and should not be considered suitable.

<u>Tree Species:</u> The factors described above are predicated on the tree species. Certain species grow slowly and decline slowly. Other species grow quickly and decline quickly. Tree species that are invasive, or a nuisance or have an inherently poor structure are to

Suitability Ratings

be avoided.

When the above factors are considered, assessed trees were rated as HIGH, MODERATE or LOW in suitability for preservation. An explanation for each rating is provided below.

HIGH: Trees which are significant and expected to provide long-term contributions to the site. They display fair or better health and fair or better structural condition. On-going suitability may require typical maintenance practices commonly associated with the tree species. These trees are the most suitable for retention measures and are worthy of consideration during the design process or design revision.

MODERATE: Trees which contribute to the site but provide less than significant contributions for reasons of health, structural condition or appearance. On-going suitability will require properly implemented maintenance practices. Design revisions to preserve these trees may not be warranted.

LOW: Trees which provide minor contributions to the property for reasons of poor health, structural condition or appearance. A tree species that is a nuisance due to litter, will grow too large for the area or is known to develop a structure prone to failure is also rated low in suitability. Generally speaking, trees in this category are not expected to benefit or respond to acceptable corrective measures. Removal of these trees will often allow the safe, useful and aesthetic enjoyment of the property. Preservation of low rated trees is not recommended.

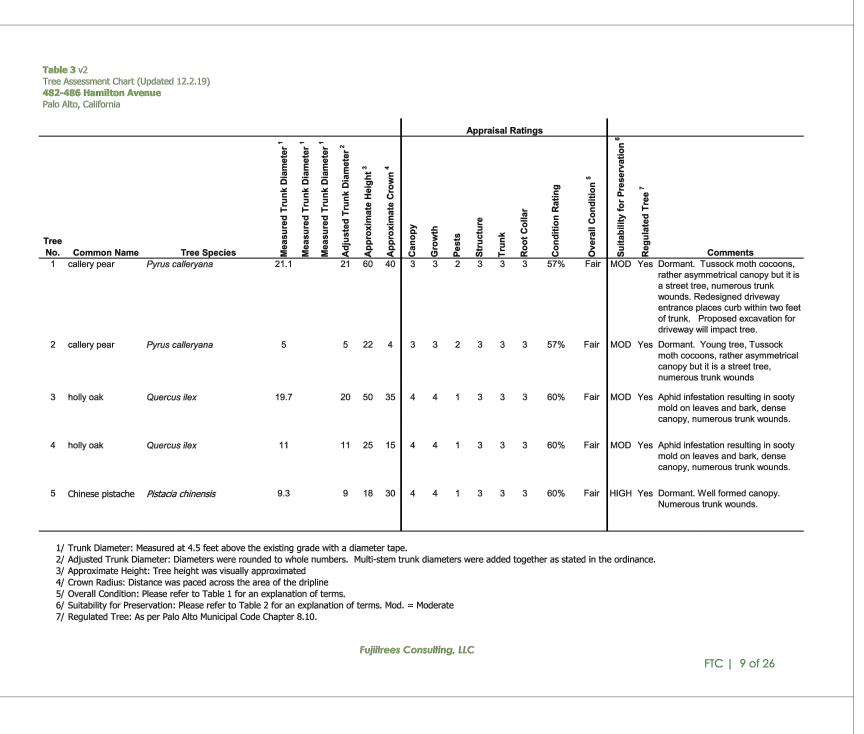
*Preservation is referred to as "Conservation" in ANSI A300 (Part 5) – 2005 Management

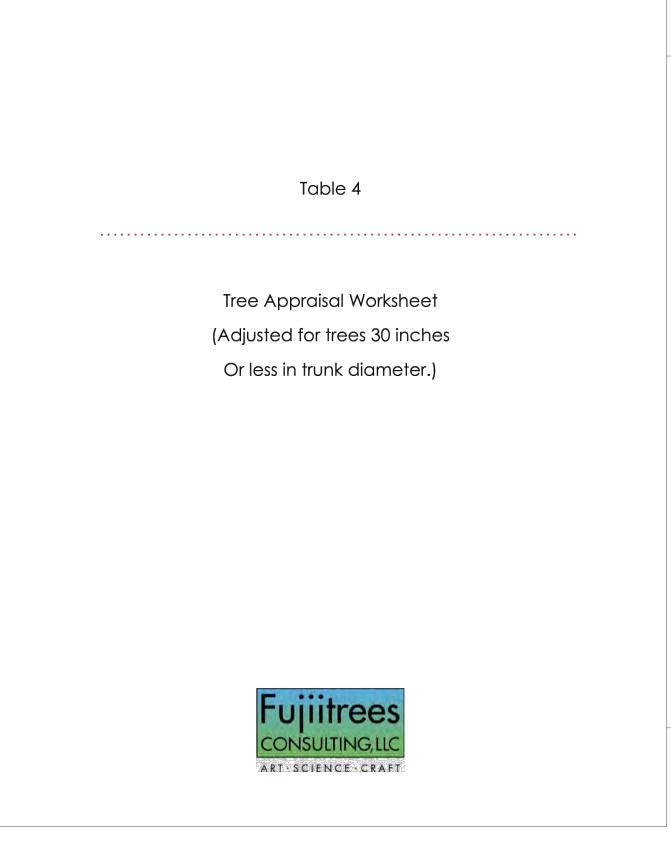


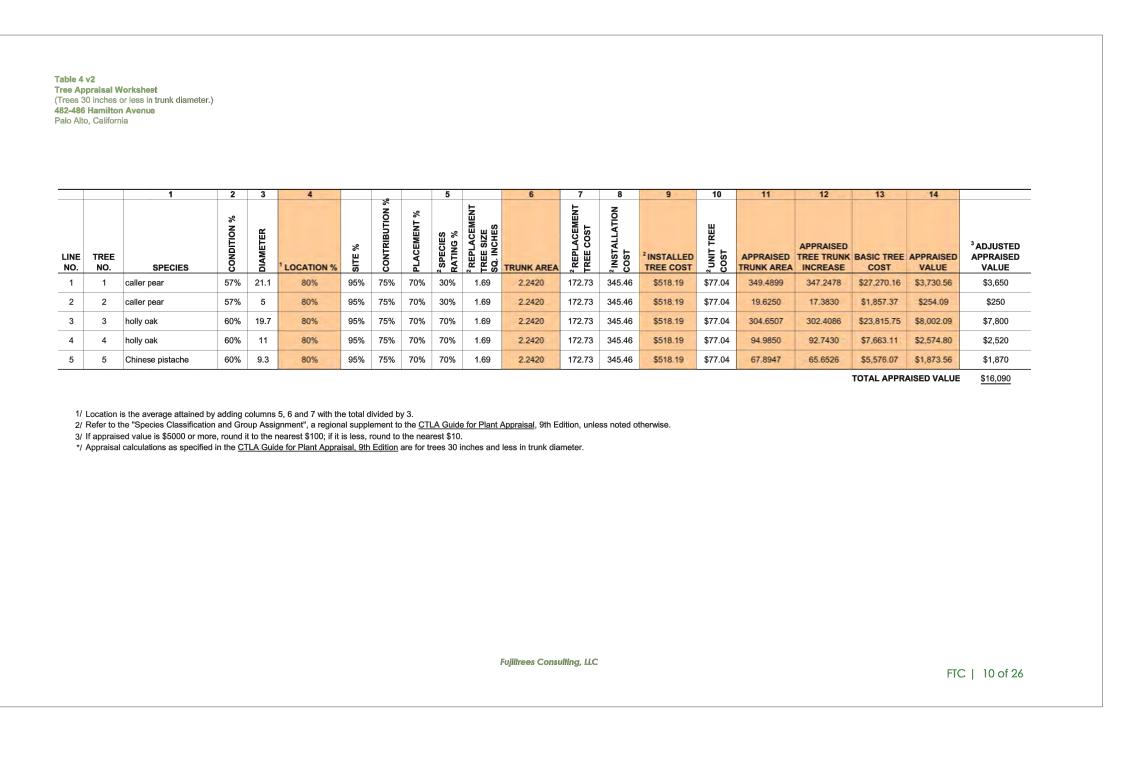
FTC | 8 of 26

Table 3 Tree Assessment Chart





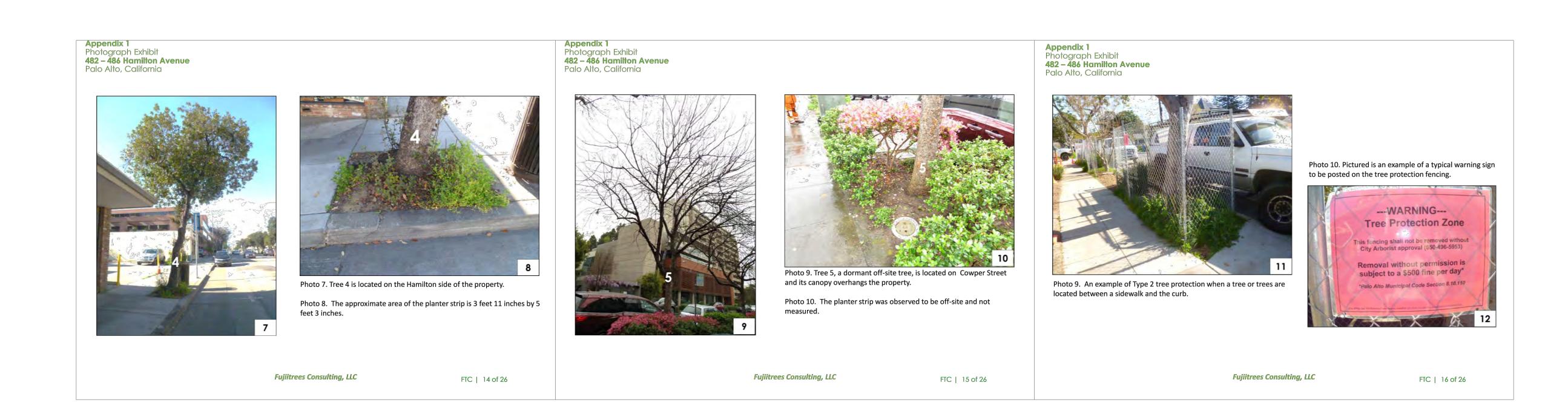




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March 10, 2020

FTC | 13 of 26

Appendix 2

Tree Protection Plan

ART SCIENCE - CRAFT

Appendix 2 v2 Tree Protection Plan 482 – 486 Hamilton Avenue Palo Alto, California

- 1 This Tree Protection Plan is to be included as a detail on the final site plan used for
- 2 A Consulting Arborist who is a member of the American Society of Consulting Arborists (ASCA) or is certified by the International Society of Arboriculture (ISA) is to be retained to act as the <u>Project Arborist</u> to monitor any construction activities that may impact the health of protected trees at the site.
- 3 Supplemental Water
- 3.1 Prior to construction operations, soil surrounding the trees should be checked for
- 3.2 Supplemental watering is to be provided by the contractor as determined by the Project Arborist.
- 4 Prior to the start of grading and construction, all regulated trees are to be checked for equipment and building clearance and professionally pruned. (Refer to item 16 - Tree Contractors.) Have written authorization in-hand from the City, prior to scheduling any such tree work.
- 5 Prior to the start of grading and construction and when approved by the City, **Tree 1** should be properly removed by a qualified tree contractor. The stump is to be entirely removed to prevent interference with proposed excavation. (Refer to item 16 - Tree Contractors.) Have written authorization in-hand from the City, prior to scheduling any such tree removal.
- 6 Prior to the start of grading and construction, a minimum six inch layer of clean wood chips is to be installed within the dripline of protected trees where possible.
- Prior to the start of grading and construction activities, **Trees 3, 4 and 5** require TYPE 2 temporary protective barriers consisting of chain link fencing six feet high, attached to two inch diameter metal posts, eight feet long, driven two feet into the ground and spaced no more than 10 feet apart are to be placed along the edge of sidewalk, along the back of the parking lot curb and closed at both ends at limits specified by the Project Arborist.
- 8 See photos 9 & 10, Detail 605 and Section 31 Information sheet following this plan.
- 9 Prior to the start of grading and construction activities, **Tree 2** requires TYPE 3 tree protection consisting of a trunk wrap described below:



FTC | 17 of 26

- 9.1 Trunk Wrap
- 9.1.1 The trunk is to be wrapped with a 2-inch layer of orange plastic construction fencing as padding from the ground up to the first branch.
- 9.1.2 Wooden slats 2-inches thick are to be bound securely, edge to edge, on the outside of the plastic fencing.
- 9.1.3 A single layer of orange plastic construction fencing is to be wrapped and secured around the outside of the wooden slats.
- 9.1.4 Major scaffold limbs may require protection as determined by the Project
- 10 A means of access to the protected tree is to be a component of the tree protection fencing to allow examination and watering of the trees.
- 11 A warning sign, minimize size 8.5" x 11" is to be secured to each fence. The warning sign should be made weather proof. (See photo 10 and the example following this plan.)
- 12 Chain link panels five to six feet high may be used when approved by the City of Palo Alto and the Project Arborist.
- 13 The tree protection fencing is not to be moved without approval from the Project Arborist.
- 14 The area within the fencing is the Tree Protection Zone (TPZ).
- 15 Tree Protection Zone (TPZ) Restrictions
- 15.1 All work within the TPZ is to be approved by the City or Project Arborist prior to the commencement of the task.
- 15.2 The Project Arborist or designee is to be present to monitor work performed within the TPZ.
- 15.3 No vehicles or equipment are allowed within the dripline or TPZ of any
- 15.4 No storage or dumping of construction materials, equipment, supplies, chemicals, paints, concrete or spoils is permitted within the TPZ,
- 15.5 No exhaust is permitted to be discharged into the canopy of trees. 15.6 All work within the TPZ is to be performed by hand held equipment.
- 15.7 Boring under tree roots or trenching by use of pneumatic equipment
- such as an Air Spade® is recommended.



FTC | 18 of 26

15.8 Grade changes or excavations within the TPZ are to be first authorized and later supervised by the Project Arborist.

16 Tree Contractors

- 16.1 All tree work (pruning, tree removal and stump grinding) is to be performed by a
- State of California Licensed Tree Contractor. (C61 and D49) 16.2 All pruning is to be performed or directed by a Certified Arborist or a Certified Tree Worker in accordance with the Best Management Practices for Pruning (International Society of Arboriculture) and adhere to the most recent editions of the American National Standards Institute (ANSI) for Tree Care Operations (Z133.1) and Pruning (A300 – Part 1).
- 17 Post Construction Care
 - 17.1 Post Construction Care will require authorization (permit) from the City of Palo Alto prior to beginning any work on the subject trees.
 - 17.2 Trees preserved at the construction site will experience a physical environment different from that of pre-development. As a result, tree health and structural stability should be monitored. Occasional pruning, fertilization, mulch, pest management and irrigation may be required. These trees may require pruning on a 5 to 7 year cycle.
 - 17.3 All tree work (pruning and removals) is to be performed by a State of California Licensed Tree Contractor. All pruning is to be performed or directed by a Certified Arborist or a Certified Tree Worker.

STREET TREE PROTECTION SPECIFICATIONS

31-1 General – Tree protection has three primary functions, 1) to keep the foliage canopy and branching structure clear from contact by equipment, materials and activities; 2) to preserve roots and soil conditions in an intact and non-compacted state and 3) to identify the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved.

31-2 Reference Documents

- **a. Detail 505** Illustration of situations described below.
- b. Tree Technical Manual (www.cityofpaloalto.org/trees/) 1. Trenching Restriction Zone s (Section 2.20(C)) **2.** Arborist Reporting Protocol (Section 6.30) 3. Site Plan Requirements (Section 6.35)

- a. The Tree Protection Zone (TPZ) is an restricted area around the base of the tree with a radius of 10 times the diameter of the tree's trunk or ten feet, whichever is greater, enclosed by fencing.
- **b. Type I Tree Protection:** The fence shall enclose the entire area under the canopy dripline or TPZ (whichever is greater) of the tree(s) to be protected throughout the life of the construction project. In some parking areas, if fencing is located on paving or concrete that will not be demolished, then the posts may be supported by an appropriate grade level concrete base, if approved.
- **c. Type II Tree Protection:** For trees situated within a planting strip, only the planting strip and yard side of the TPZ shall be enclosed with the required chain link protective fencing in order to keep the sidewalk and street open for public
- **d.** Type III Tree Protection: Trees situated in a tree well or sidewalk planter pit, shall be wrapped with 2-inches of orange plastic fencing from the ground to the first branch and overlaid with 2-inch thick wooden slats bound securely (slats shall not be allowed to dig into the bark). During installation of the plastic fencing, caution shall be used to avoid damaging any branches. Major scaffold limbs may also require plastic fencing as directed by the City Arborist.
- e. Size, type and area to be fenced. All trees to be preserved shall be protected with six (6') foot high chain link fences. Fences are to be mounted on two-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing.

2004 Standard Drawings and Specifications

Street Tree Protection, Section 31

Page 1 of 2 FTC | 20 of 26

'Warning' sign. A warning sign shall be prominently displayed on each fence at 20-foot intervals. The sign shall be a minimum 8.5-inches x 11-inches and clearly state: "WARNING - Tree Protection Zone - This fence shall not be removed and is subject to a fine according to PAMC Section 8.10.110."

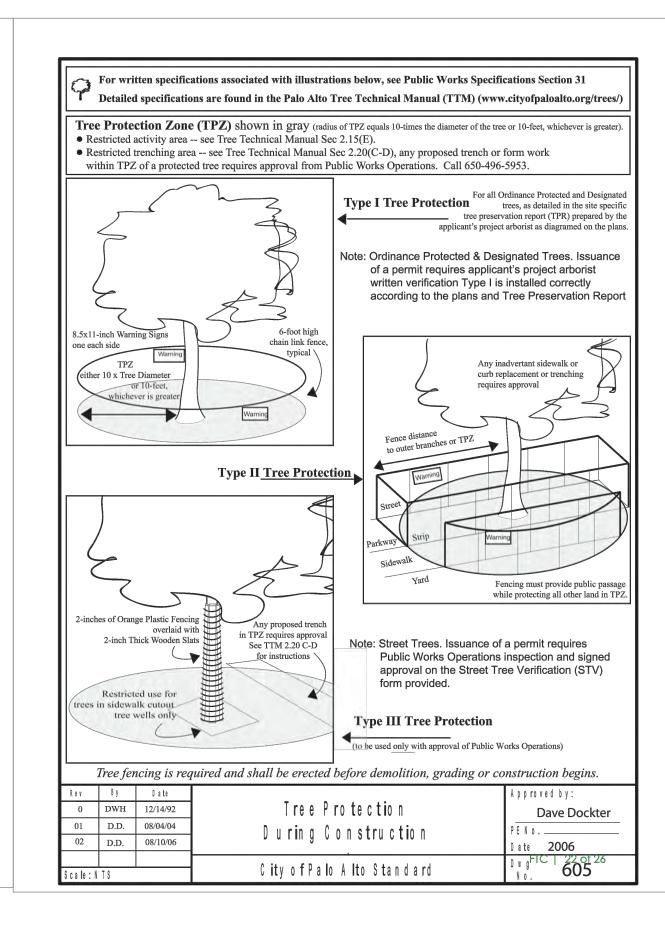
31-4 Execution

- **Duration**. Tree fencing shall be erected before demolition, grading or construction begins and remain in place until final inspection of the project, except for work specifically allowed in the TPZ. Work or soil desturbance in the TPZ requires approval by the project arborist or City Arborist (in the case of work around Street Trees). Excavations within the public ROW require a Street Work Permit from Public Works.
- During construction
- 1. All neighbors' trees that overhang the project site shall be protected from
- impact of any kind. 2. The applicant shall be responsible for the repair or replacement plus penalty of any publicly owned trees that are damaged during the course of construction, pursuant to Section 8.04.070 of the Palo Alto Municipal Code.
- 3. The following tree preservation measures apply to all trees to be retained: **a.** No storage of material, topsoil, vehicles or equipment shall be
 - permitted within the TPZ. **b.** The ground under and around the tree canopy area shall not be altered. **c.** Trees to be retained shall be irrigated, aerated and maintained as necessary to ensure survival.

END OF SECTION

2004 Standard Drawings and Specifications Street Tree Protection, Section 31

Page 2 of 2



WARNING-Tree Protection Zone

This fencing shall not be removed without City Arborist approval (650-496-5953). Removal without permission is subject to a \$500 fine per day*.

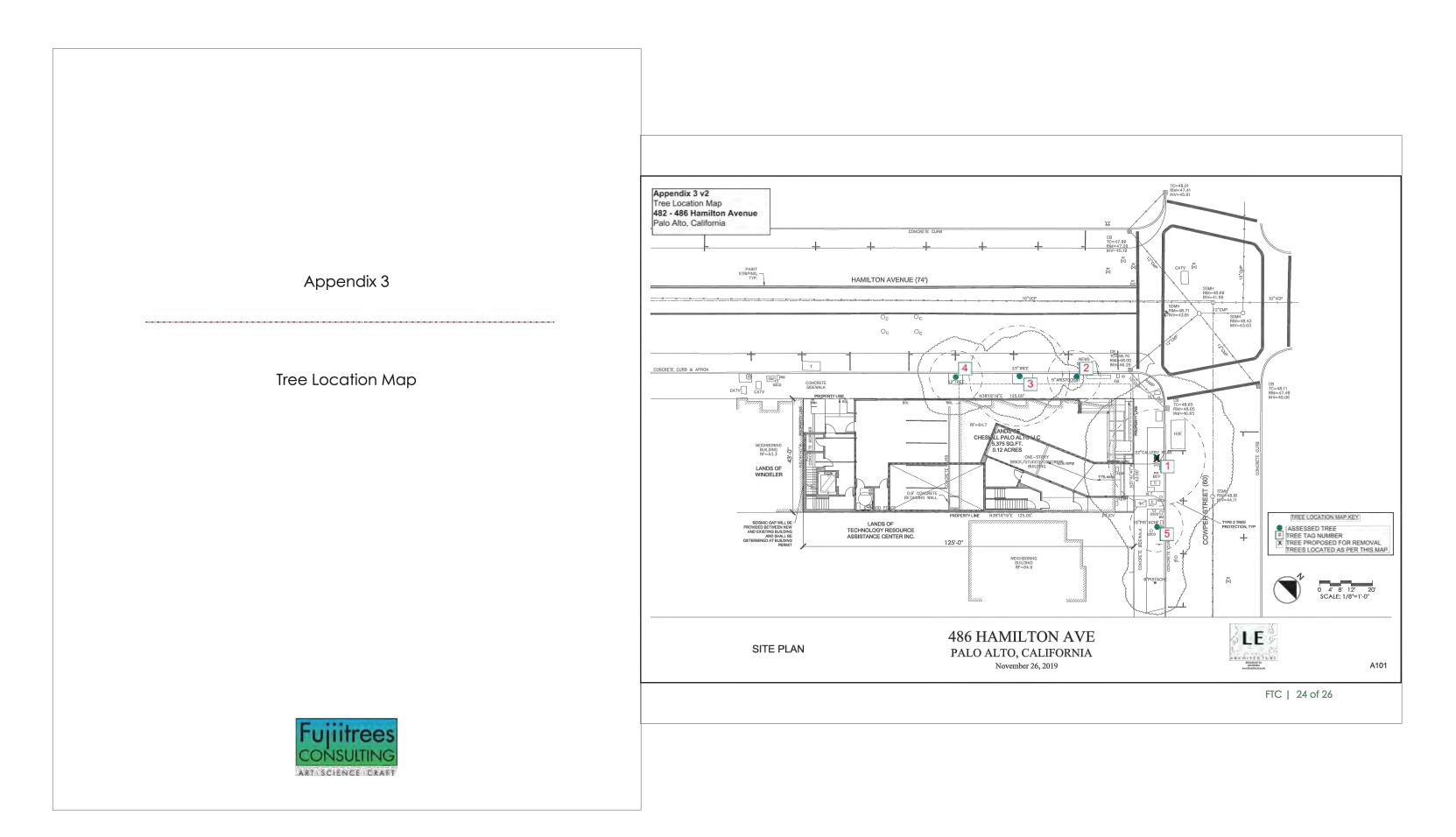
*Palo Alto Municipal Code Section 8.10.110

FTC | 23 of 26

FTC | 19 of 26

486 HAMILTON AVE PALO ALTO, CALIFORNIA







486 HAMILTON AVENUE STATEMENT OF DESIGN INTENT: CREATE A LANDSCAPE AESTHETIC WHICH COMPLIMENTS THE CONTEMPORARY ARCHITECTURAL STYLE WHILE CREATING INVITING ENTRIES, PEDESTRIAN CORRIDORS AND COURTYARDS. TO ACCOMPLISH THESE GOALS, LANDSCAPED AREAS AND POTTERY HAVE BEEN STRATEGICALLY LEVEL ONE INCOPORATES PEDESTRIAN ENTRIES WHICH ARE FLANKED BY RAISED PLANTERS UTILIZING A COMBINATION OF SUCCULENTS, PALO ALTO, CA LANDSCAPE CONCEPT LEVEL THREE UTILIZES A MIX OF SUCCULENTS AND SHRUBS WITH THE ADDITION OF POTTERY STRATEGICALLY LOCATED TO PROVIDE CLIMBING - EXISTING STREET TREE, TYPICAL VINES INTENDED TO ENHANCE THE ARCHITECTURAL FACADE OFFERING TEXTURE AND COLOR TO THE ARCHITECTURAL TRELLISES. EXISTING NEWS STAND HAMILTON AVE. — VEGETATED STEPS HAMILTON AVE. – PAVED WALKWAY - PEDESTRIAN ACCESS (STEPS) — RAISED LANDSCAPE PLANTER — ADA RAMP RAISED LANDSCAPE PLANTER – LANDSCAPE AREA — (2) LONG TERM BIKE LOCKERS — PAVED DECK ——— PAVED DECK – BIKE RACK - PEDESTRIAN RAMP — STAIRWELL – STAIRWELL — RAISED LANDSCAPE PEANTER — CONCRETE SIDEWALK — ELEVATOR — UPDATED PARKWAY PLANTER – (E) PYRUS CALLERYANA RELOCATED W/ CITY APPROVAL – VEHICULAR ACCESS ⋈ ICV STAINLESS STEEL CABLE SCREEN W/ ALUMINUM SQUARE POSTS LEVEL 02 LEVEL 01 (STREET LEVEL) KNOX KEY SWITCH BOX-SCALE: 1"=10' SCALE: 1"=10' \circ_{C} PLANTED TRELLIS HAMILTON AVE. — PAVED DECK — LIGHT WEIGH CONCRETE PLANTERS — PAVED DECK — PLANTED TRELLIS – PAVED DECK – STAIRWELL ELEVATOR – PAVED DECK PLANTER IRRIGATION LIGHT WEIGHT PLANTER AND RAISED PLANTERS —— PAVED DECK ⋈ ICV

VEGETATED TRELLIS

SCALE: 1"=10'

1'' = 10'

SHEET 1 of 4

12/11/19

landscape architecture, inc 25 CRESCENT DR. #A714 PLEASANT HILL CA 94523

phone: 925 822 3085

www.thnorton.com

VEGETATED STEPS

NOTES:

LEVEL 03

- THE LANDSCAPE SHALL COMPLY WITH THE CRITERIA OF THE WATER EFFICIENT
- LANDSCAPE ORDINANCE (WELO)

– RAISED LANDSCAPE PLANTER

A WEATHER BASED AUTOMATIC IRRIGATION CONTROLLER SHALL BE UTILIZED.
 ALL PLANTER AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED BARK MULCH.

486 HAMILTON AVENUE PALO ALTO, CA LANDSCAPE CONCEPT





1. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF SITE CONDITIONS WHICH PREVENT INSTALLATION PER PLANS AND SPECIFICATIONS. CONTRACTOR SHALL NOT PROCEED WITH WORK PRIOR TO CLARIFICATION BY LANDSCAPE ARCHITECT OR CITY INSPECTOR.

2. CONTRACTOR SHALL BE LIABLE FOR REMOVING AND RE-INSTALLING IRRIGATION EQUIPMENT, AND REPLANTING AREAS WHICH ARE NOT INSTALLED PER PLAN AND SPECIFICATIONS.

3. REFER TO PLANTING SPECIFICATIONS FOR INSPECTION/CERTIFICATION SCHEDULE

4. IRRIGATION SYSTEM SHALL BE INSTALLED PRIOR TO PLANT MATERIALS. 5. TREES AND SHRUBS SHALL BE PLANTED AFTER CONCRETE PLACEMENT BUT NOT BEFORE IRRIGATION COVERAGE TEST No. 1 HAS BEEN APPROVED (SEE SPECIFICATIONS).

6. PLACE TREES BETWEEN IRRIGATION HEADS WHEREVER POSSIBLE. 7. LANDSCAPE CONTRACTOR SHALL TAKE FOUR (4) SOIL SAMPLES FROM THE SITE AT LOCATIONS APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REP. THESE SAMPLES SHALL BE TAKEN AT A DEPTH OF 12" AFTER ROUGH GRADING AND SUBMITTED TO AN APPROVED SOIL AND PLANT LABORATORY FOR AGRICULTURAL SUITABILITY TESTING. THE COST OF TESTING SHALL BE INCLUDED IN THE CONTRACTOR'S BID. 8. THE RECOMMENDATIONS OF THE SOIL REPORT SHALL SUPERSEDE THE SOIL PREPARATION AND BACKFILL MIX SPECIFICATIONS (SEE SPECIFICATIONS). THE CONTRACTOR SHALL SUBMIT A COPY OF ALL SOILS REPORTS TO THE LANDSCAPE ARCHITECT PRIOR TO MODIFICATION OF THESE SPECIFICATIONS. 9. CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS AND/OR REPLACEMENT OF ANY DAMAGED LANDSCAPE AREAS BEYOND THE LIMIT OF WORK, THAT IS A DIRECT RESULT OF THE LANDSCAPE CONSTRUCTION AND/OR HIS SUB- CONTRACTOR. REPLACEMENT ITEMS SHALL BE EXACT DUPLICATES OF ORIGINAL WORK OR PLANTS, UNLESS OTHERWISE APPROVED BY LANDSCAPE ARCHITECT 10. CLEAN-UP SHALL TAKE PLACE ON A DAILY BASIS UNLESS

OTHERWISE APPROVED BY OWNER'S REP.

11. WEED ABATEMENT: AFTER EARTHWORK, INSTALLATION OF IRRIGATION SYSTEM, AND SOIL PREPARATION, BUT PRIOR TO PLANTING, PERFORM WEED ABATEMENT PROGRAM TO ALL PLANTING AREAS AS FOLLOWS:

- A. APPLY SULFATE OF AMMONIA AT THE RATE OF 5 LBS. PER 1,000 SQ. FT. TO ALL AREAS TO BE PLANTED.

 B. KEEP AREA MOIST BY REGULAR IRRIGATION FOR A PERIOD
- OF TWO (2) WEEKS TO GERMINATE EXISTING WEED SEEDS.
 C. AT THE END OF TWO WEEKS, APPLY 'ROUND UP' OR EQUAL SYSTEMIC HERBICIDE. DO NOT IRRIGATE WITHIN SIX (6) HOURS AFTER APPLICATION. REFER TO MFG. SPECIFICATIONS FOR PERIOD OF TIME REQUIRED FROM TIME OF APPLICATION TO

TIME OF PLANTING. AFTER COMPLETE WEED KILL, REMOVE ALL WEED RESIDUE AND TOP GROWTH AND DISPOSE OF IN A LEGAL MANNER.

ALL HERBICIDES SHALL BE APPLIED ONLY BY A

14. SOIL MANAGEMENT SHALL BE PER SOILS REPORT, PROVIDED BY OWNER

CALIFORNIA LICENSED APPLICATOR.

12. CONTRACTOR SHALL BE RESPONSIBLE FOR THE
INSTALLATION OF ALL PLANT MATERIAL INDICATED ON PLANS.
QUANTITIES INDICATED ON PLAN ARE FOR ESTIMATION PURPOSES
13. TREES WITHIN 5' OF PAVING SHALL HAVE ROOT BARRIERS
INSTALLED PER MANUF. SPECIFICATIONS. ROOT BARRIER
SHALL BE AMERICAN DRAINAGE 'ROOT BARICADE' MODEL RB-24
AVAILABLE THRU: NDS (800) 726-1994

IRRIGATION NOTES

- 1. INSTALL ALL IRRIGATION COMPONENTS ACCORDING TO LOCAL CODES AND ORDINANCES.
- 2. THE CONTRACTOR SHALL OBTAIN, COORDINATE AND PAY FOR ANY AND ALL PERMITS AND ALL INSPECTIONS AS REQUIRED.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE AND LIABLE FOR ANY ENCROACHMENT INTO ADJACENT PROPERTY, R.O.W.'S, EASEMENTS, SETTRACIZE OF ANY OTHER LEGAL PROPERTY RESTRICTIONS FITTING.
- 4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL UNDERGROUND UTILITIES. CONTRACTOR SHALL REPAIR/REPLACE AT NO ADDITIONAL COST TO THE OWNER, ANY DAMAGE TO UNDERGROUND UTILITIES THAT MAY
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE AND LIABLE FOR ANY AND ALL DAMAGES TO OPERATIONS OR WORK OF OTHER CONTRACTORS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ACTIVITIES WITH ALL AGENCIES AND OTHER TRADES
- 6. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON PLANS AT THE SITE PRIOR TO COMMENCEMENT OF ANY WORK. ALL DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO PROJECT LANDSCAPE ARCHITECT AND CITY INSPECTOR FOR DIRECTION. ANY CONTINUATION OF WORK IS AT THE CONTRACTOR'S RISK AND EXPENSE.
- 7. THE CONTRACTOR SHALL ONLY APPLY SUFFICIENT WATER TO PROMOTE HEALTHY GROWTH OF THE PLANT MATERIAL. AT NO TIME WILL THE CONTRACTOR APPLY WATER AT A RATE OF FREQUENCY WHICH CAUSES RUNOFF OR SOIL SATURATION.
- 8. REFER TO DETAILS AND SPECIFICATIONS FOR INSTALLATION OF ALL COMPONENTS.
- 9. THE WORK SHOWN ON THESE PLANS IS DIAGRAMATIC, ALL ITEMS, IE. CONTROLLERS, VALVES, MAINLINES, SLEEVES, WIRES, IRRIGATION HEADS ETC... ARE SHOWN IN THIER APPROXIMATE LOCATIONS ONLY. DO NOT SCALE DIMENSIONS, DETAIL DRAWINGS MAY CLARIFY LOCATION OF SOME ITEMS. THE CONTRACTOR SHALL NOT LOCATE ANY ITEMS WHERE OVIOUS THAT THEY ARE IN CONFLICT WITH UNDERGROUND UTILITIES, STRUCTURES, OTHER IMPROVEMENTS, OR VEHICULAR OR PEDESTRIAN SAFETYL CONSIDERATIONS.
- 10. ADJUST ALL HEADS FOR MINIMUM OVERSPRAY ON ANY NONPLANTED AREAS AND COMPLETE COVERAGE OF LANDSCAPE AREAS. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING CONDITIONS (USE VARIABLE ARC
- ARC TO FIT THE EXISTING CONDITIONS (USE VARIABLE ARC NOZZLES AS NECESSARY).

 11. LOCATE ALL SHRUB SPRAY HEADS 6" FROM EDGE OF PAVING.
- 12. DO NOT USE FIXED RISERS EXCEPT ON SLOPES. MARKED OR UNMARKED.
- 13. USE 4" POP-UP HEADS IN TURF AREAS, AND 6" POP-UP HEADS IN SHRUB
- 14. USE VARIABLE ARC NOZZLES FOR AREAS OTHER THAN 90, 180, OR 360 DEGREES.
- 15. SLEEVE IRRIGATION WIRING, LATERAL LINES AND MAINLINE UNDER ALL PAVING. ALL SLEEVES TO BE 2x SIZE OF PIPE TO BE SLEEVED
- 16. USE CHECK VALVES AS REQ'D TO ELIMINATE LOW HEAD DRAINAGE.17. USE HUNTER PRESSURE COMPENSATING DEVICES ON ALL NOZZLES.
- 18. WHERE VERTICAL OBSTRUCTIONS IN THE LANDSCAPE AREA INTERFERE WITH THE SPRAY PATTERN OF ANY SPRINKLER RESULTING IN THE IMPROPER COVERAGE OF IRRIGATION, THE IRRIGATION CONTRACTOR SHALL RECTIFY THE COVERAGE OF IRRIGATION, THE IRRIGATION CONTRACTOR SHALL RECTIFY THE SITUATION BY FIELD ADJUSTMENT TO THE IRRIGATION SYSTEM. THIS MAY REQUIRE THE ADDITION OF QUARTER CIRCLE SPRINKLERS TO EACH SIDE OF THE OBSTRUCTION OR OTHER MEASURES. ALL SUCH ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
- 19. PIPING AND WIRE CONDUIT PENETRATIONS THROUGH WALLS AND INSTALLATION OF ANY IRRIGATION EQUIPMENT UNDER PAVING MUST BE COORDINATED WITH THE GENERAL CONTRACTOR AND CONTRACTORS OF ALL VARIOUS TRADES THAT MAY BE INVOLVED TO ELIMINATE PROBLEMS THAT MAY ARISE FROM INACCESSIBILITY OF DAMAGE TO ANOTHER TRADE'S WORK.

PRELIMINARY IRRIGATION CALCULATIONS

486 HAMILTON, PALO ALTO

 Eto
 43

 Total HA
 1,116

 Special HA
 0

 ETAF Average
 0.49

 ETAF Total
 0.49

FLOOR 2	MOD	0.4	DRIP	0.81	0.5	826	408	10,875
FLOOR 3	MOD	0.4	DRIP	0.81	0.5	140	69	1,843
LS TOTALS						1,116	551	14,693
SLA	WATER USE				ETAF	НА	ETAF*HA	ETWU
N/A	HIGH				1.0	0	0	8
SLA TOTALS						0	0	0

 2,314
 75%

 768
 25%

ETWU=(Eto)(0.62) x [(PFxHA)/ED+SLA]

MAWA = (ETo) $(0.62) [(0.7 \times LA) + 0.3 \times SLA)]$

20,827 Gallons 2,784 HCF

TWU 14,693 Gallons

THNORTON E landscape architecture, inc. 25 CRESCENT DR. #4714

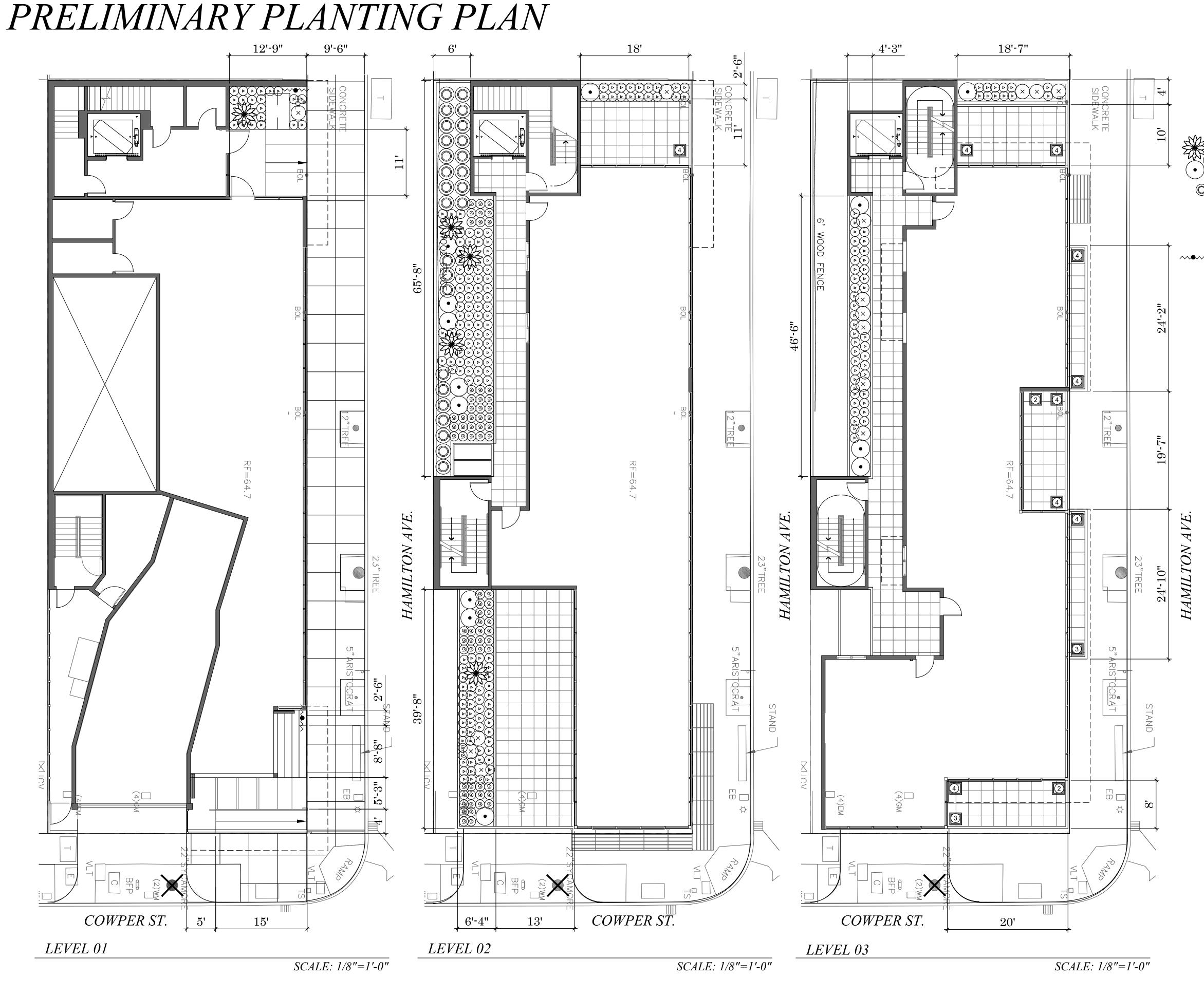
| METHOD | IE | ETAF | HA | ETAF*HA | ETWU

0.81 0.5 150 74

PLEASANT HILL CA 94523 phone: 925 822 3085 www.thnorton.com

SHEET 2 of 4 12/11/19 12

486 HAMILTON AVENUE PALO ALTO, CA



PRELIMINARY PLANT LIST

	GENERAL LANDSCAPE AREAS				
	BOTANICAL NAME	COMMON NAME	EXPOSURE	WUCOLS	NATIVE
·	SHRUBS				
₹	AGAVE VILMORINIANA	OCTOPUS AGAVE	SUN/SHADE	LOW	NO
(\times)	AGAVE NOVA	BLUE FOX AGAVE	SUN/SHADE	LOW	NO
$) \sim$	BERBERIS SPC'S	BARBERRY	SUN/SHADE	LOW	NO
<u> </u>	DIETES BICOLOR	FORTNIGHT LILY	SUN	LOW	NO
	ROSMARINUS O. 'KEN TAYLOR'	DWARF ROSEMARY	SUN	LOW	NO
(A)	CAREX DIVULSA	BERKELEY SEDGE	SUN/SHADE	LOW	YES
	POTTED PLANTS				
(1)	ACACIA 'COUSIN ITT'	COUSIN ITT ACACIA	SUN/SHADE	LOW	NO
(2)	AGAVE NOVA	BLUE FOX AGAVE	SUN/SHADE	LOW	NO
(3)	CASUARA CLAUCA 'COUSIN IT'	COUSIN IT CASUARA	SUN/SHADE	LOW	NO
$ \sqrt{4} $	HARDENBERGIA 'HAPPY WANDERER'	LILAC VINE	SUN/SHADE	MOD	NO
_					

- 1) FENCE OR WALL OR TRELLIS, PER PLAN
- STAKED VINE LEAN AGAINST VERTICAL BACKDROP WITH NURSERY STAKE
- (3) NURSERY STAKE
- 4 VINE ROOTBALL SET 1" ABOVE FINISH
- (5) 3" HIGH TEMPORARY BERM
- 3" SHREDDED BARK MULCH PER SPECIFICATIONS. PULL BACK FROM MAIN STEM OF TREE
- FINISH GRADE
- BACKFILL MIX REFER TO SPECIFICATIONS
- (9) FERTILIZER TABS PER SPECIFICATIONS SCRATCH ROOTBALL AND SIDES OF PLANT PIT TO LOOSEN PRIOR TO PLANTING
- 12 GAUGE GALVANIZED WIRE SECURE VINE TO WIRE WITH NURSERYMAN'S TAPE
- 5/16" DIAMETER EYEBOLTS INSTALL WITH LEAD SHIELDS AT MASONRY WALLS
- (13) EYEBOLTS FOR FUTURE USE

VINE INSTALL / STAKING

2X ROOTBALL



486 HAMILTON AVENUE PALO ALTO, CA HYDROZONE PLAN



HYDROZONE LEGEND

SYMBOL	ZONE #
	HZ 01 - LEVEL 01
	HZ 02 - LEVEL 02
	HZ 03 - LEVEL 03
	HZ 04 - POTS

NOTES:

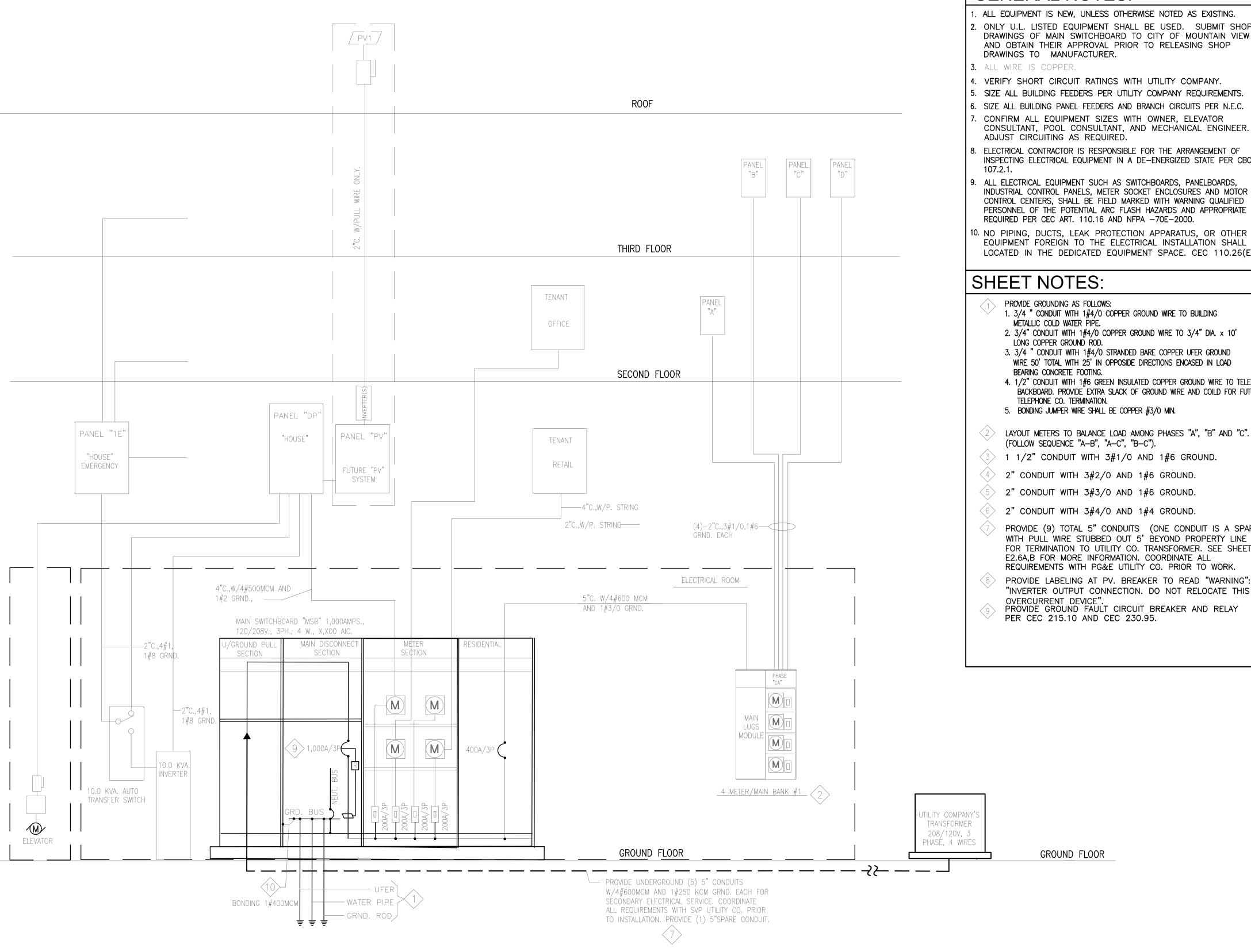
- THE LANDSCAPE SHALL COMPLY WITH THE CRITERIA OF THE WATER EFFICIE LANDSCAPE ORDINANCE (WELO)
- A WEATHER BASED AUTOMATIC IRRIGATION CONTROLLER SHALL BE UTILIZ
 ALL PLANTER AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED BARK MUL



THNO landscape arc

andscape architecture 25 CRESCENT DR. #A714 PLEASANT HILL CA 94523 phone: 925 822 3085 www.thnorton.com

SHEET 4 of 4 12/11/19 12



GENERAL	NOTEC	_
		-
	- 11016	-

- ALL EQUIPMENT IS NEW, UNLESS OTHERWISE NOTED AS EXISTING. ONLY U.L. LISTED EQUIPMENT SHALL BE USED. SUBMIT SHOP DRAWINGS OF MAIN SWITCHBOARD TO CITY OF MOUNTAIN VIEW AND OBTAIN THEIR APPROVAL PRIOR TO RELEASING SHOP
- 5. SIZE ALL BUILDING FEEDERS PER UTILITY COMPANY REQUIREMENTS.
- 3. SIZE ALL BUILDING PANEL FEEDERS AND BRANCH CIRCUITS PER N.E.C. CONFIRM ALL EQUIPMENT SIZES WITH OWNER, ELEVATOR CONSULTANT, POOL CONSULTANT, AND MECHANICAL ENGINEER.
- . ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE ARRANGEMENT OF INSPECTING ELECTRICAL EQUIPMENT IN A DE-ENERGIZED STATE PER CBC
- ALL ELECTRICAL EQUIPMENT SUCH AS SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES AND MOTOR CONTROL CENTERS, SHALL BE FIELD MARKED WITH WARNING QUALIFIED PERSONNEL OF THE POTENTIAL ARC FLASH HAZARDS AND APPROPRIATE PPE
- 10. NO PIPING, DUCTS, LEAK PROTECTION APPARATUS, OR OTHER EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION SHALL BE LOCATED IN THE DEDICATED EQUIPMENT SPACE. CEC 110.26(E).
 - 1. 3/4 " CONDUIT WITH 1#4/0 COPPER GROUND WIRE TO BUILDING

 - 3. 3/4 " CONDUIT WITH 1#4/0 STRANDED BARE COPPER UFER GROUND WIRE 50' TOTAL WITH 25' IN OPPOSIDE DIRECTIONS ENCASED IN LOAD
 - 4. 1/2" CONDUIT WITH 1#6 GREEN INSULATED COPPER GROUND WIRE TO TELEPHONE BACKBOARD. PROVIDE EXTRA SLACK OF GROUND WIRE AND COILD FOR FUTURE
 - 5. BONDING JUMPER WIRE SHALL BE COPPER #3/0 MIN.
- LAYOUT METERS TO BALANCE LOAD AMONG PHASES "A", "B" AND "C".
- (3) 1 1/2" CONDUIT WITH 3#1/0 AND 1#6 GROUND.

- PROVIDE (9) TOTAL 5" CONDUITS (ONE CONDUIT IS A SPARE) WITH PULL WIRE STUBBED OUT 5' BEYOND PROPERTY LINE FOR TERMINATION TO UTILITY CO. TRANSFORMER. SEE SHEET
- E2.6A,B FOR MORE INFORMATION. COORDINATE ALL REQUIREMENTS WITH PG&E UTILITY CO. PRIOR TO WORK. PROVIDE LABELING AT PV. BREAKER TO READ "WARNING":
- OVERCURRENT DEVICE". PROVIDE GROUND FAULT CIRCUIT BREAKER AND RELAY PER CEC 215.10 AND CEC 230.95.

LOAD CALCULATION

BUILDING LOAD CALCULATION

RESIDENTIAL (4 UNITS; 4,265 S.F):

APPLIANCE CIRCUITS 3,000 x 4

LAUNDRY CIRCUITS 1,500 x 4

GARBAGE DISPOSAL 1,000 x 4

1,200 x 4

800 x 4

8,000 x 4

5,000 x 4

1 x 30,000

LIGHTING $4,265 \times 3W/S.F.$

CONNECTED | CONNECTED LOAD VA. LOAD AMPS

12,000

30,000

113,000

54,000

10,000

20,000

259,000

302.4

719.4

840.0

840.0

1,000 AMPS.

LOAD DESCRIPTION

DISHWASHER

REFRIGERATOR

SUB TOTAL RESIDENTIAL:

 $(96,395 \times 0.45) =$

38% PER 2011 NEC ART. 220-84 =

"NON RESIDENTIAL" (5,500 S.F.):

HOUSE PANEL (OFFICE, HVAC AND

ELECTRICAL CHARGERS 2 x 6,000

COMMERCIAL AREA (RETAIL) 2,200 S.F.

COMMERCIAL AREA (OFFICE) 1,900 S.F.

BOOSTER & SEWAGE EJECTOR PUMPS

PLUMBING COMMON AREAS E.T.C.

HEAT PUMP

DRYER

ELEVATOR

EXTERIOR LIGHTING

CAR LIFTS $4 \times 4,000$

SUB TOTAL "NON RESIDENTIAL"

TOTAL KVA. "RESIDENTIAL AND

TOTAL AMPS. @ 120/208V., 3ø, 4W

| 43.4 + 259 = 302.4 KVA |

"NON RESIDENTIAL"

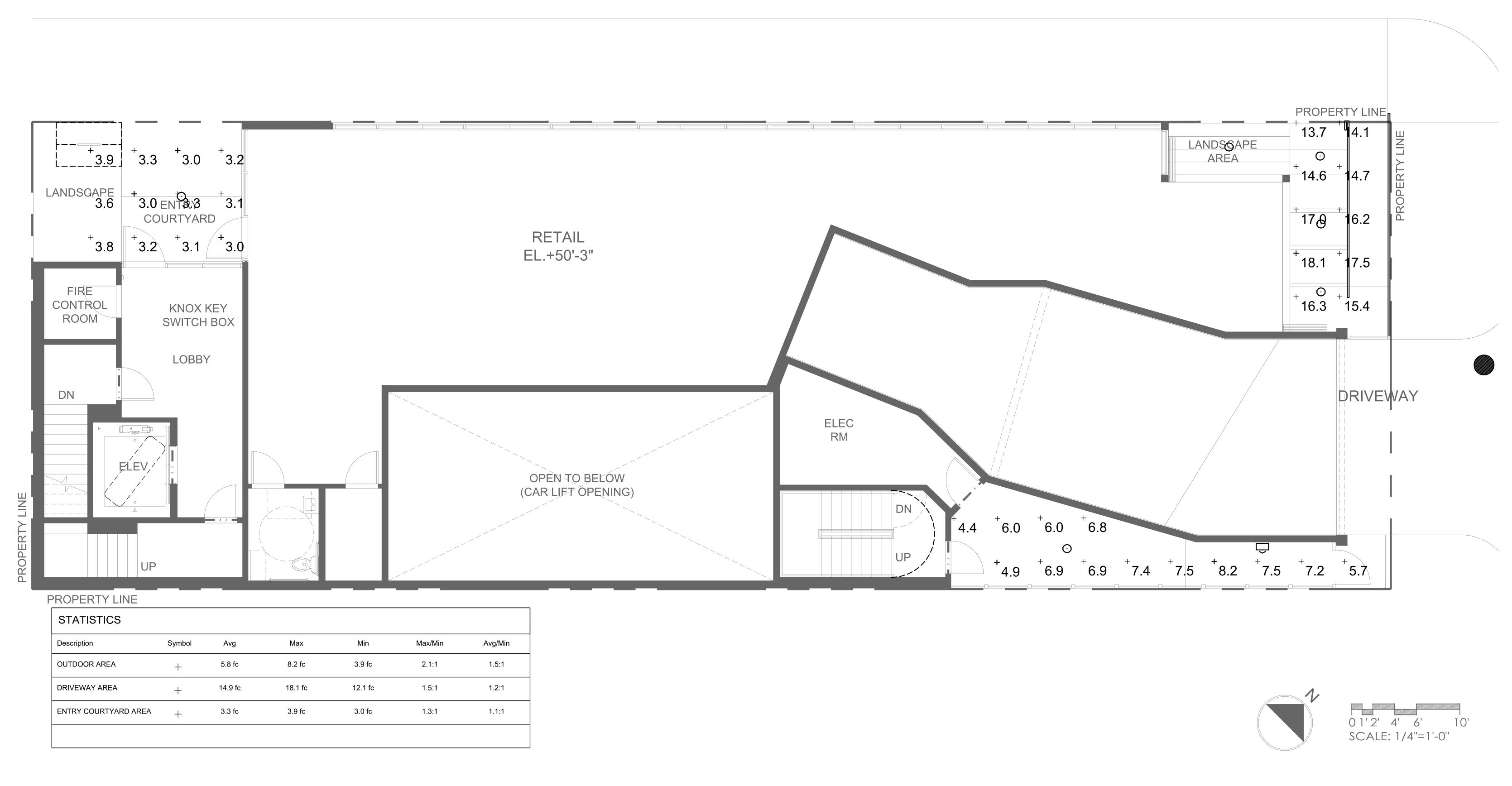
BUILDING SERVICE SIZE

SINGLE LINE DIAGRAM

486 HAMILTON AVE PALO ALTO, CALIFORNIA

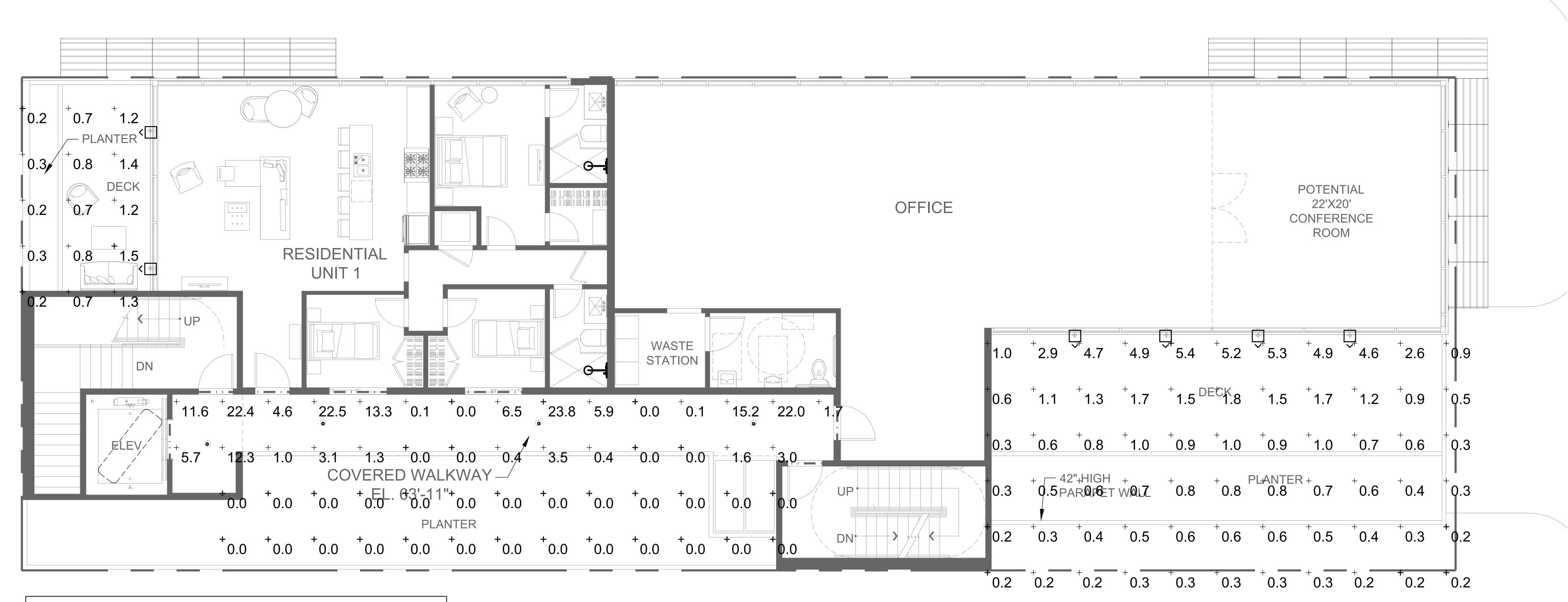
ARCHITECTURE BURLINGAME CA 650.239.9062 www.klearchitecture.com

HAMILTON AVENUE



486 HAMILTON AVE
PALO ALTO, CALIFORNIA
December 16, 2019

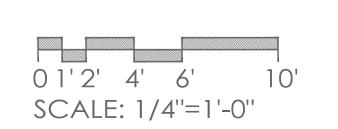




STATISTICS						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
DECK #1 ZONE	+	0.8 fc	1.5 fc	0.2 fc	3.8:1	2.0:1
DECK #2 ZONE	+	1.2 fc	5.4 fc	0.2 fc	27.0:1	6.0:1
COVER WALKWAY ZONE	+	3.4 fc	23.8 fc	0.0 fc	N / A	N / A

LEVEL 2 FLOOR PLAN











ARCHITECTURE

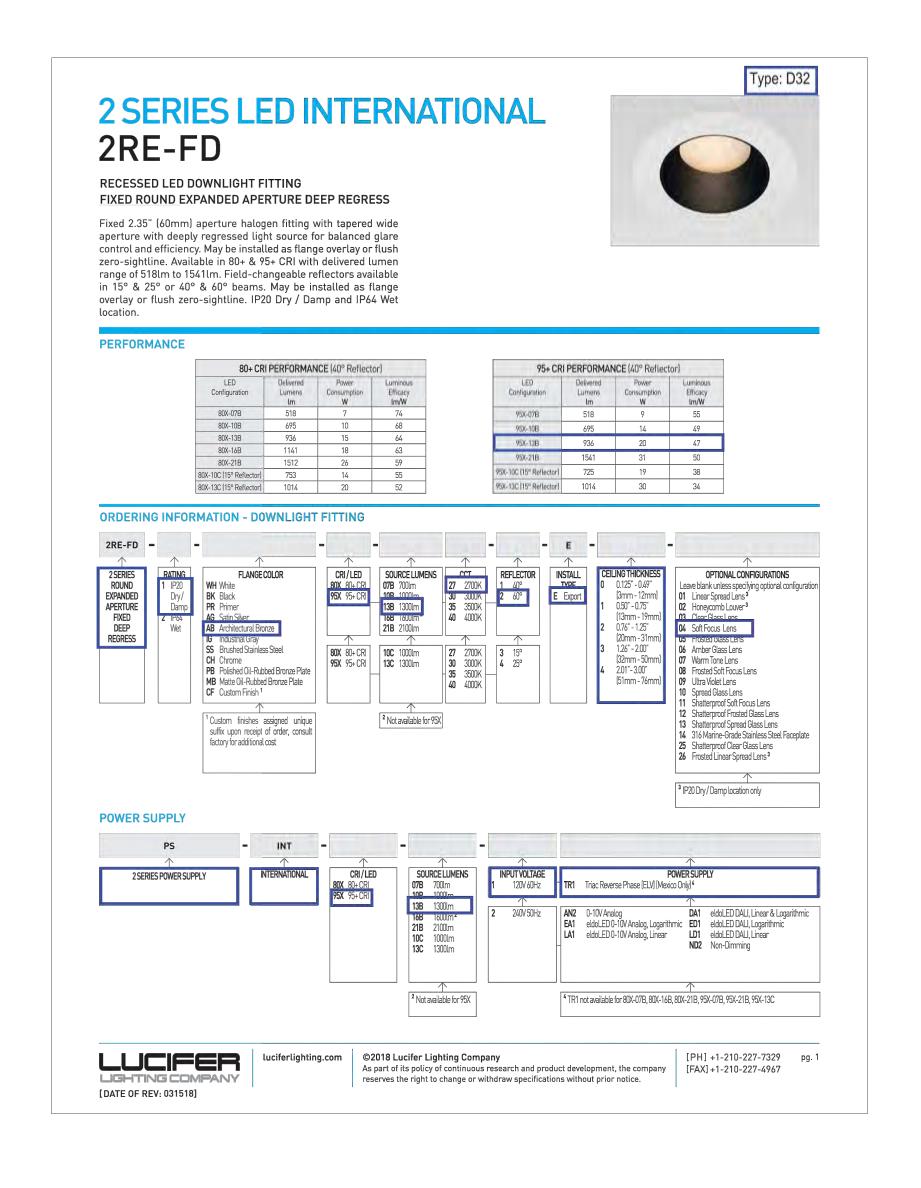
BURLINGAME CA 650.239.9062

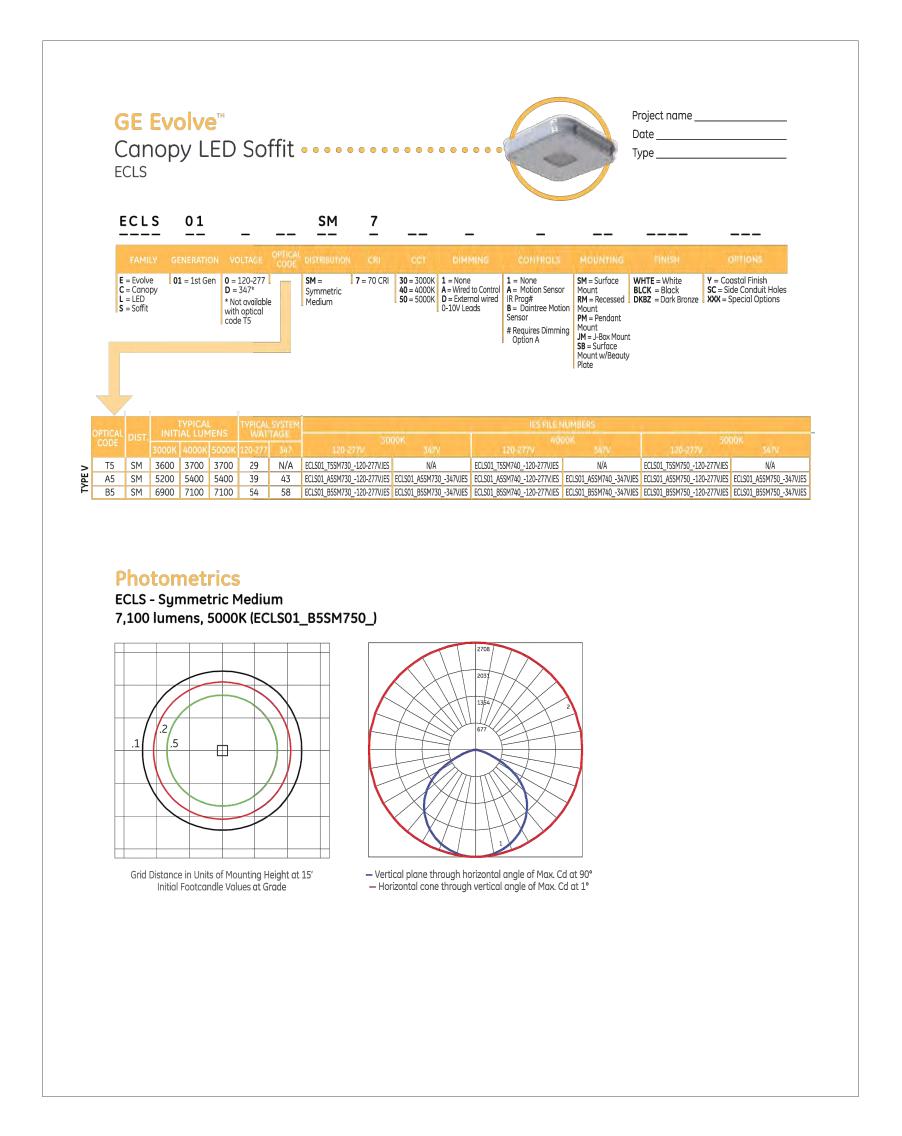


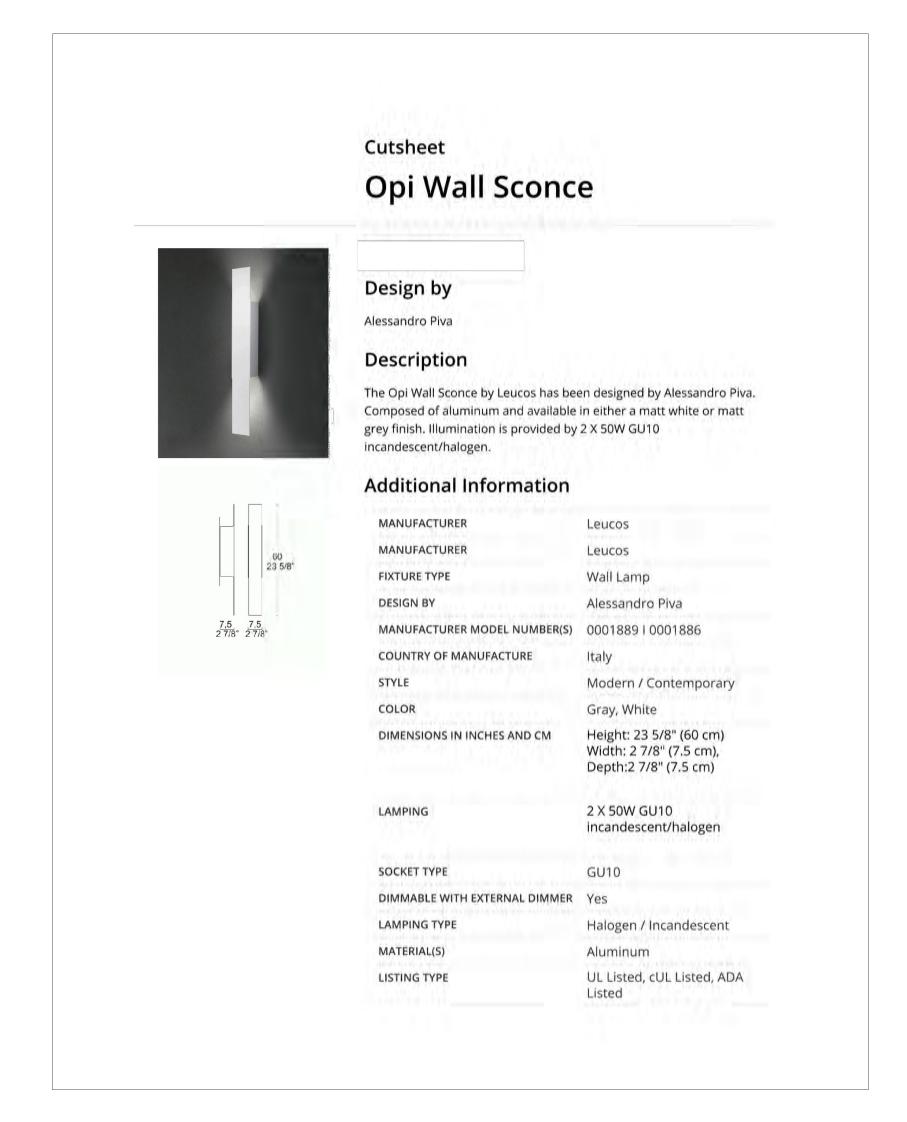
486 HAMILTON AVE PALO ALTO, CALIFORNIA

December 16, 2019







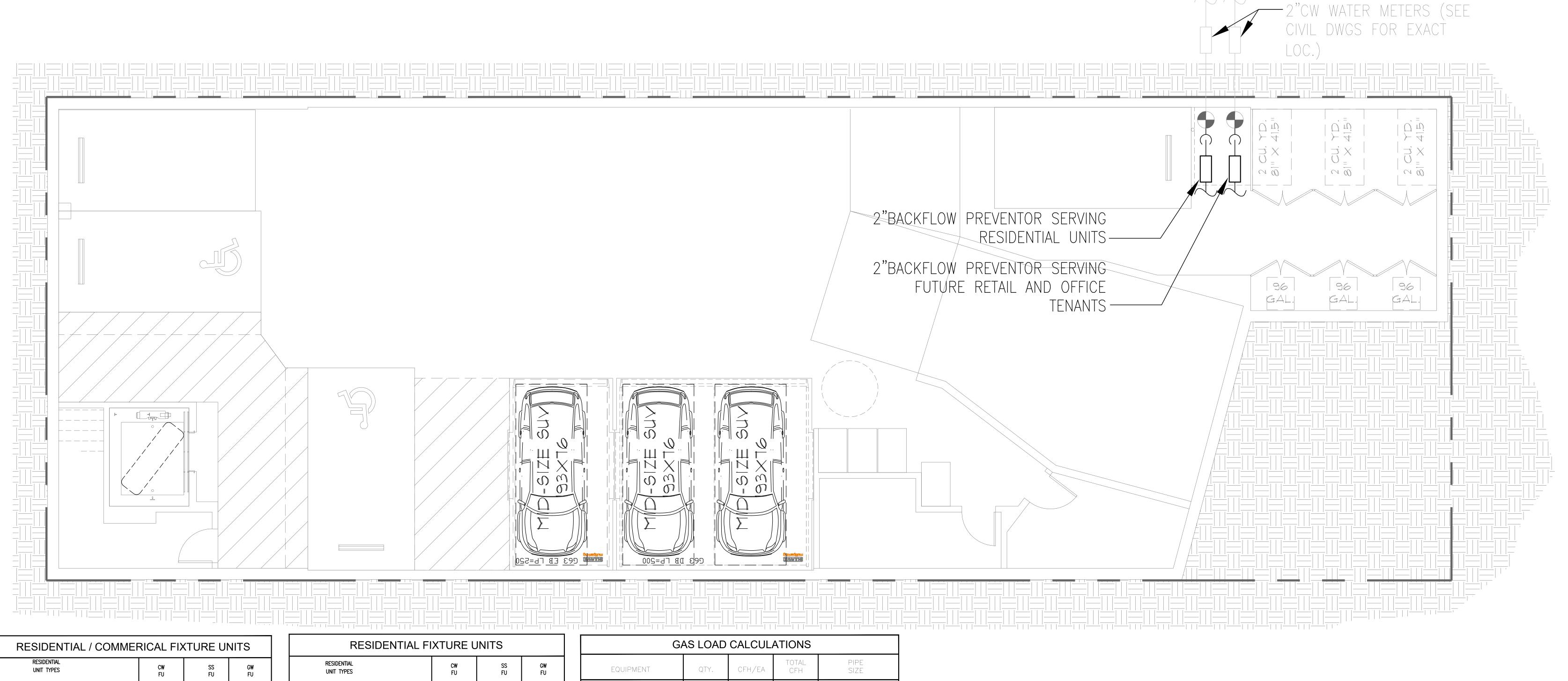


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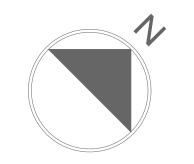
PALO ALTO, CALIFORNIA

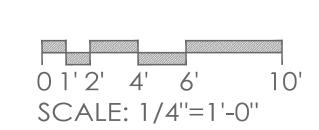


residential Unit Types	CW FU	SS FU	G W FU		
RETAIL SPACE	12 (EST.)	12 (EST.)			
OFFICE SPACE	14 (EST.)	14 (EST.)	_		
COMMERCIAL SUB-TOTAL	26 (EST.)	26 (EST.)	_		
TOTAL COMMERCIICAL		CW-FU = 26			
GPM = 39 TOTAL 2" PIPE @ 39 GPM VELOCITY =4.5 FT/S SS-FU (VELOCITY BASED ON COPPER PIPE)					

RESIDENTIAL FIXTURE UNITS						
residential Unit Types	CW FU	SS FU	GW FU			
UNIT #1	16	-	-			
UNIT #2	16	_	_			
UNIT #3	16	-	_			
UNIT #4	16	-	_			
resid. Sub-total	64	-	_			
TOTAL RESIDENCE		CW-FU = 6 $GPM = 3$				
2" PIPE @ 35 GPM VELOCITY =3.5 FT/S (VELOCITY BASED ON COPPER PIPE)						
CALCULATIONS BASED ON UPC 2019 APP. A, TABLE A-2	2, CHART A-4					

GAS LOAD CALCULATIONS					
EQUIPMENT	QTY.	CFH/EA	TOTAL CFH	PIPE SIZE	
RESIDENTIAL					
RANGE/OVEN	4	80	320	_	
DOMESTIC WATER HEATER	4	40	160	_	
CLOTH DRYER	4	40	160	_	
OUTDOOR BBQ	4	60	240	_	
GAS HEATER	4	45	180	_	
			1,060		
LOW PRESSURE GAS LINE (< 2PS SERVED = 200 FT @ GRAND TOT REQUIRED.					
CALCULATIONS BASED ON CPC 20 ONE-RESIDENTIAL GAS METER	19				





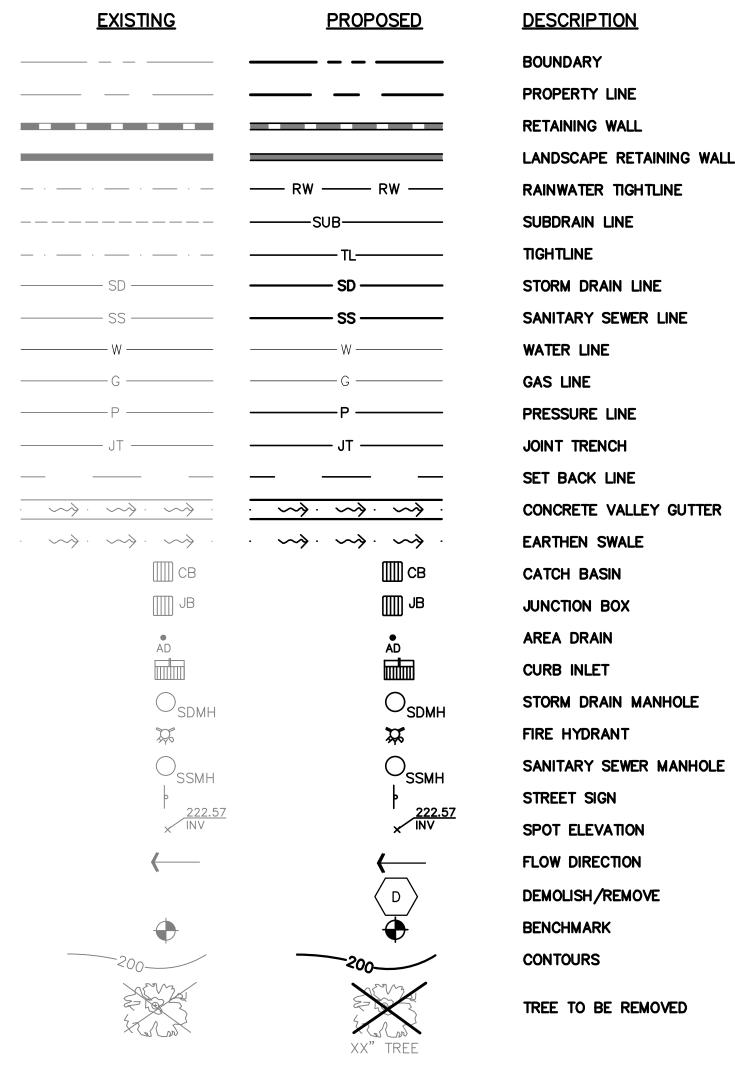
P1 FLOOR PLAN

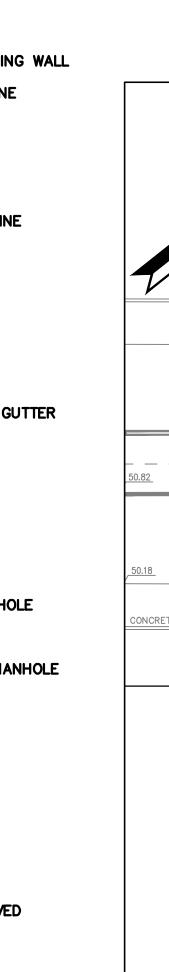
486 HAMILTON AVE
PALO ALTO, CALIFORNIA
March 1, 2020



LEGEND

NEW MIXED USE BUILDING 482-486 HAMILTON AVENUE PALO ALTO, CALIFORNIA





HAMILTON AVENUE (74') ONCRETE CURB & APRON Lands of Lands of TECHNOLOGY RESOURCE ASSISTANCE CENTER INC.

KEY MAP 1" = 10'

ABBREVIATIONS

HUB & TACK

INSIDE DIAMETER

JUNCTION BOX

JOINT TRENCH

LENGTH

LANDING

LNDG

INVERT ELEVATION

JOINT UTILITY POLE

AD	ACCRECATE DACE		LINEAD FEET	
AB	AGGREGATE BASE	LF	LINEAR FEET	
AC	ASPHALT CONCRETE	MAX	MAXIMUM	
ACC	ACCESSIBLE	MH	MANHOLE	
AD	AREA DRAIN	MIN	MINIMUM	
BC	BEGINNING OF CURVE	MON.	MONUMENT	
B & D	BEARING & DISTANCE	MRO	METERED RELEASE OUTLET	
BM	BENCHMARK	(N)	NEW	
BUB	BUBBLER BOX	NO.	NUMBER	
BW/FG		NTS	NOT TO SCALE	
5, 1.0	GRADE	0.C.	ON CENTER	
СВ	CATCH BASIN			
C & G	CURB AND GUTTER	0/	OVER	
		(PA)	PLANTING AREA	
<u>e</u>	CENTER LINE	PED	PEDESTRIAN	
CPP	CORRUGATED PLASTIC PIPE	PIV	POST INDICATOR VALVE	
	(SMOOTH INTERIOR)	PSS	PUBLIC SERVICES EASEMENT	
CO	CLEANOUT	P	PROPERTY LINE	
COTG	CLEANOUT TO GRADE	PP	POWER POLE	
CONC	CONCRETE	PUE	PUBLIC UTILITY EASEMENT	
CONST	CONSTRUCT or -TION	PVC	POLYVINYL CHLORIDE	
CONC COR		R	RADIUS	
CY	CUBIC YARD	RCP	REINFORCED CONCRETE PIPE	
Ď	DIAMETER	RIM	RIM ELEVATION	
DI	DROP INLET	RW	RAINWATER	
DIP	DUCTILE IRON PIPE			
	EACH	R/W	RIGHT OF WAY	
EA		S	SLOPE	
EC	END OF CURVE	S.A.D.	SEE ARCHITECTURAL DRAWING	GS
EG	EXISTING GRADE	SAN	SANITARY	
EL	ELEVATIONS	SD	STORM DRAIN	
EP	EDGE OF PAVEMENT	SDMH	STORM DRAIN MANHOLE	
EQ	EQUIPMENT	SHT	SHEET	
EW	EACH WAY	S.L.D.	SEE LANDSCAPE DRAWINGS	
(E)	EXISTING	SPEC	SPECIFICATION	
řČ	FACE OF CURB	SS	SANITARY SEWER	
FF	FINISHED FLOOR	SSCO	SANITARY SEWER CLEANOUT	
FG	FINISHED GRADE	SSMH	SANITARY SEWER MANHOLE	
FH	FIRE HYDRANT	ST.	STREET	
FL	FLOW LINE	STA	STATION	
FS	FINISHED SURFACE	STD	STANDARD	
G	GAS	STRUCT	STRUCTURAL	
GA	GAGE OR GAUGE			
GB	GRADE BREAK	T	TELEPHONE	
	HIGH DENSITY CORRUGATED	TC	TOP OF CURB	
HDPE		TOW	TOP OF WALL	
LIADIZ	POLYETHYLENE PIPE	TEMP	TEMPORARY	
HORIZ	HORIZONTAL	TP .	TOP OF PAVEMENT	
HI PT	HIGH POINT	TW/FG	TOP OF WALL/FINISH GRADE	

VC VCP

VERT

FEMA NOTE:

18, 2009.

TYPICAL

VERTICAL

WATER LINE

WATER METER

VERTICAL CURVE

VITRIFIED CLAY PIPE

WELDED WIRE FABRIC

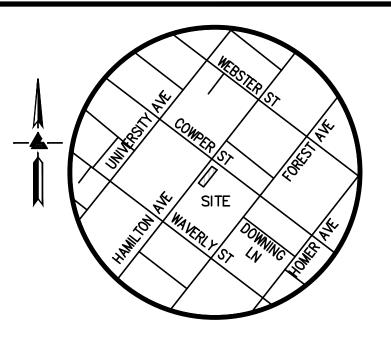
THIS PROJECT IS LOCATED WITHIN FEMA FLOOD ZONE "X". ZONE "X" IS DESIGNATED AS: AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

NO BASE FLOOD ELEVATION FOR SUBJECT SITE WAS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) NO. 06085C0010H, EFFECTIVE DATE MAY

CUT	1,395	5	1,400			
CUBIC YARDS	WITHIN BUILDING FOOTPRINT	OUTSIDE BUILDING FOOTPRINT	TOTAL CUBIC YARDS			
ESTIMATED EARTHWORK QUANTITIES						

1,380

GRADING QUANTITIES REPRESENT BANK YARDAGE. IT DOES NOT INCLUDE ANY SWELLING OR SHRINKAGE FACTORS AND IS INTENDED TO REPRESENT IN-SITU CONDITIONS. QUANTITIES DO NOT INCLUDE OVER-EXCAVATION, TRENCHING, STRUCTURAL FOUNDATIONS OR PIERS, OR POOL EXCAVATION (IF ANY). NOTE ADDITIONAL EARTHWORKS, SUCH AS KEYWAYS OR BENCHING MAY BE REQUIRED BY THE GEOTECHNICAL ENGINEER IN THE FIELD AT TIME OF CONSTRUCTION. CONTRACTOR TO VERIFY QUANTITIES.



VICINITY MAP

OWNER'S INFORMATION

THOMAS CHEUNG 160 ISLAND DRIVE PALO ALTO, CA 94301

APN: 120-16-008

REFERENCES

THIS GRADING AND DRAINAGE PLAN IS SUPPLEMENTAL TO: 1. TOPOGRAPHIC SURVEY BY LEA & BRAZE ENGINEERING INC. ENTITLED: "TOPOGRAPHIC SURVEY"
482-486 HAMILTON AVENUE PALO ALTO, CA DATED: 10-12-18 JOB#: 2181118

2. SITE PLAN BY KHOI LE-LE ARCHITECTURE ENTITLED: "NEW MIXED USE BUILDING" 482-486 HAMILTON AVENUE

THE CONTRACTOR SHALL REFER TO THE ABOVE NOTED SURVEY AND PLAN, AND SHALL VERIFY BOTH EXISTING AND

HAMILTON AVENU LTO, CALIFORNIA

 \mathcal{O}

 α

PLAN CHECK 03-08-20 PLAN CHECK 12-18-19 REVISIONS JOB NO: 2190188 DATE: 10-11-19

SCALE: 1" = 10' DESIGN BY: CA DRAWN BY: TB

01 OF 08 SHEETS

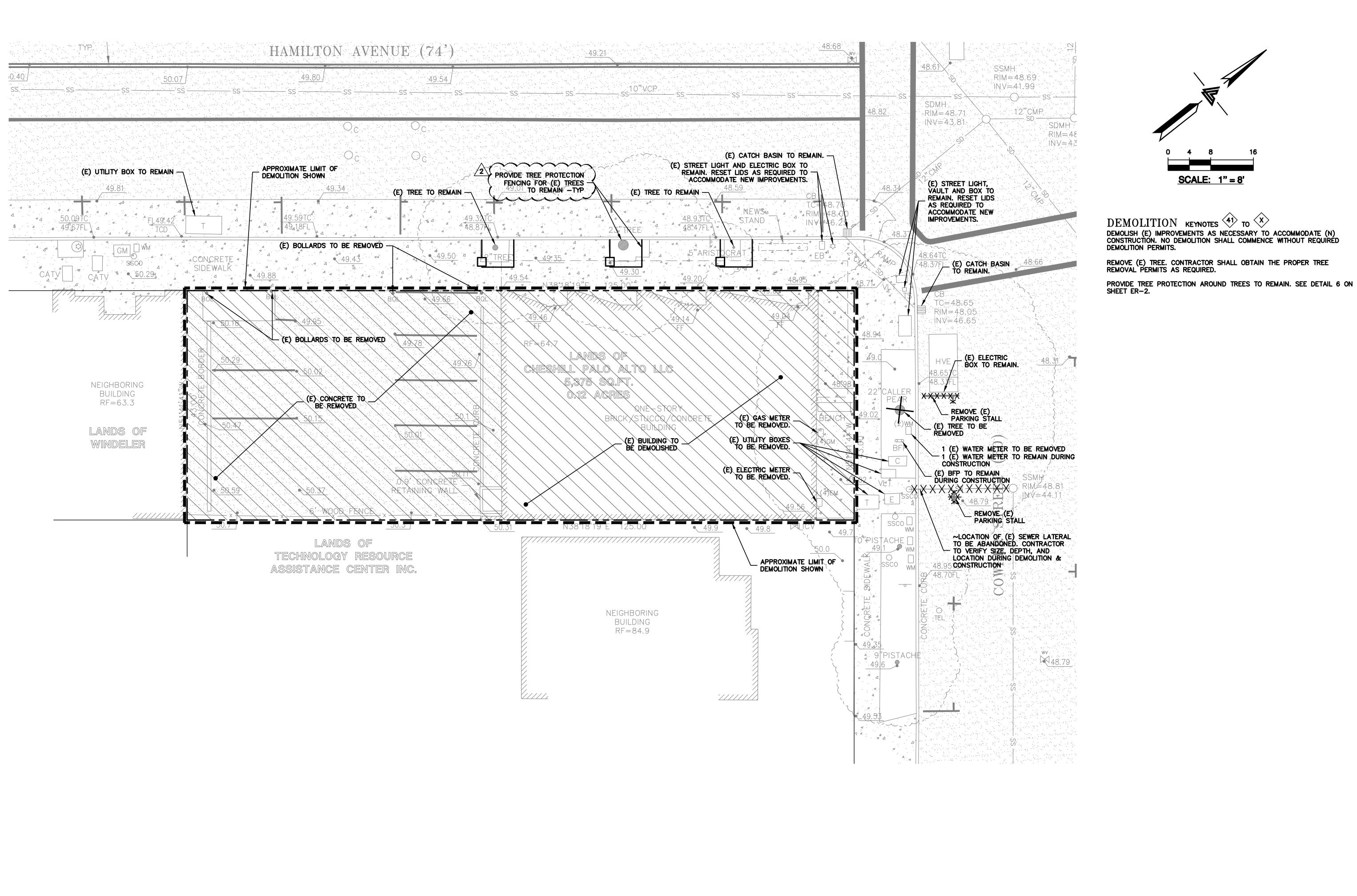
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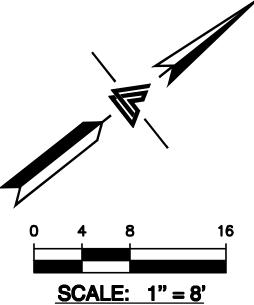
SHEET INDEX

TITLE SHEET DEMOLITION PLAN TM-1TENTATIVE MAP C - 3.0GRADING PLAN UTILITY PLAN C - 4.0

ER-1 **EROSION CONTROL** ER-2 EROSION CONTROL DETAILS

SW-1 STORMWATER POLLUTION PREVENTION PLAN TOPOGRAPHIC SURVEY





DEMOLITION KEYNOTES (41) TO (X) DEMOLISH (E) IMPROVEMENTS AS NECESSARY TO ACCOMMODATE (N) CONSTRUCTION. NO DEMOLITION SHALL COMMENCE WITHOUT REQUIRED DEMOLITION PERMITS.

REMOVE (E) TREE. CONTRACTOR SHALL OBTAIN THE PROPER TREE REMOVAL PERMITS AS REQUIRED.

 \mathbf{E} HAMILTON AVENU LTO, CALIFORNIA

186 0 \mathcal{O}

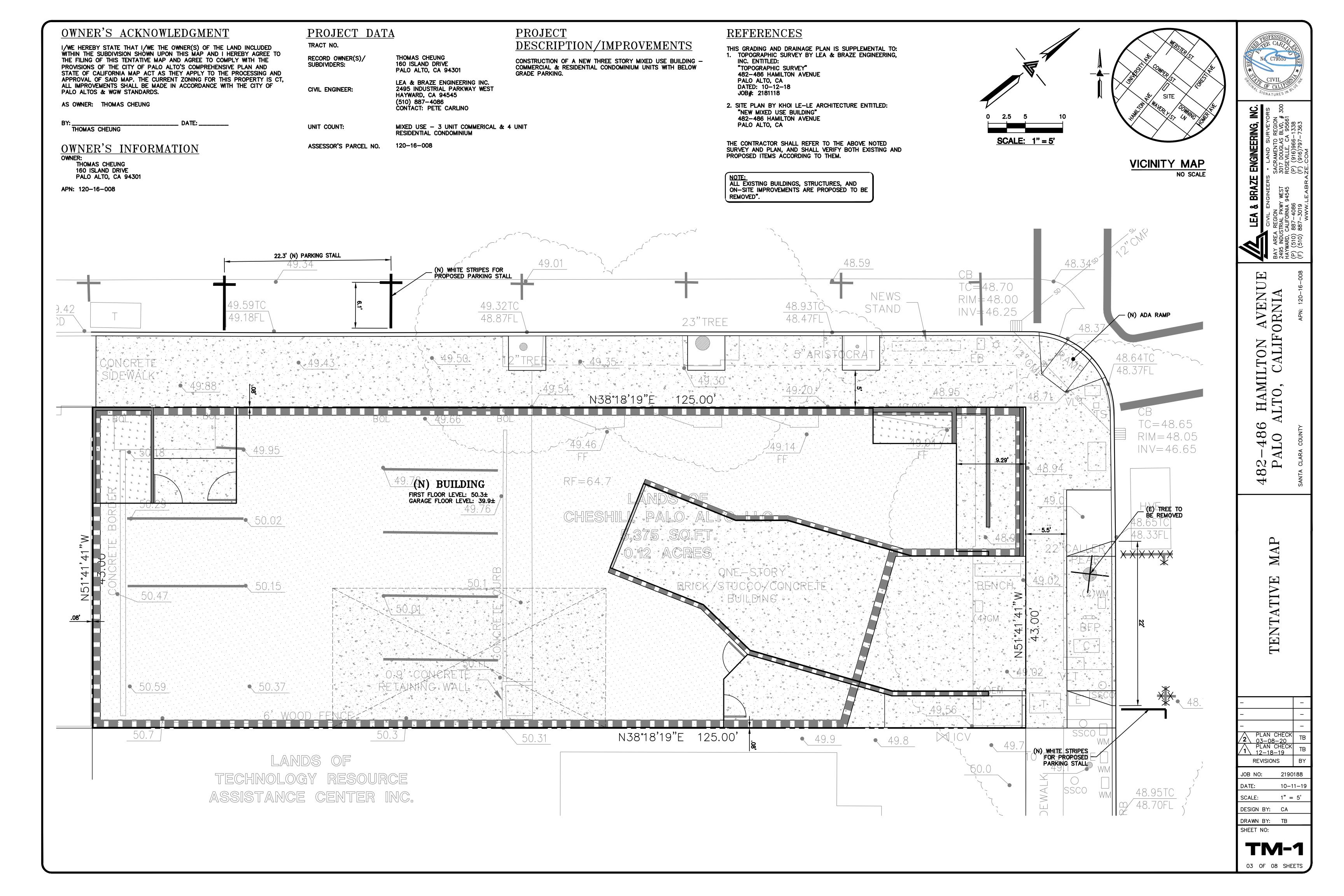
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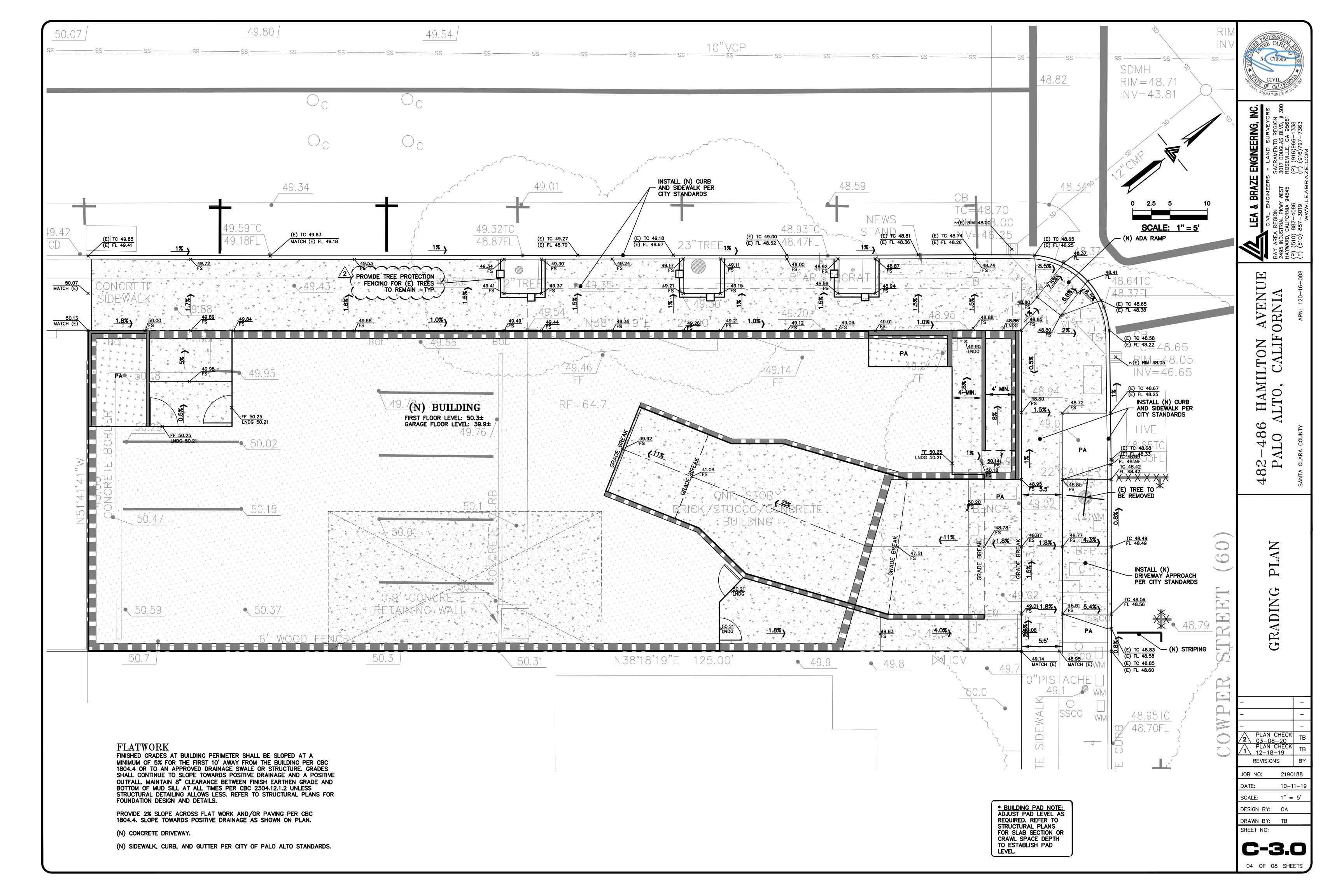
PLAN CHECK 03-08-20 PLAN CHECK 12-18-19 REVISIONS 10-11-19

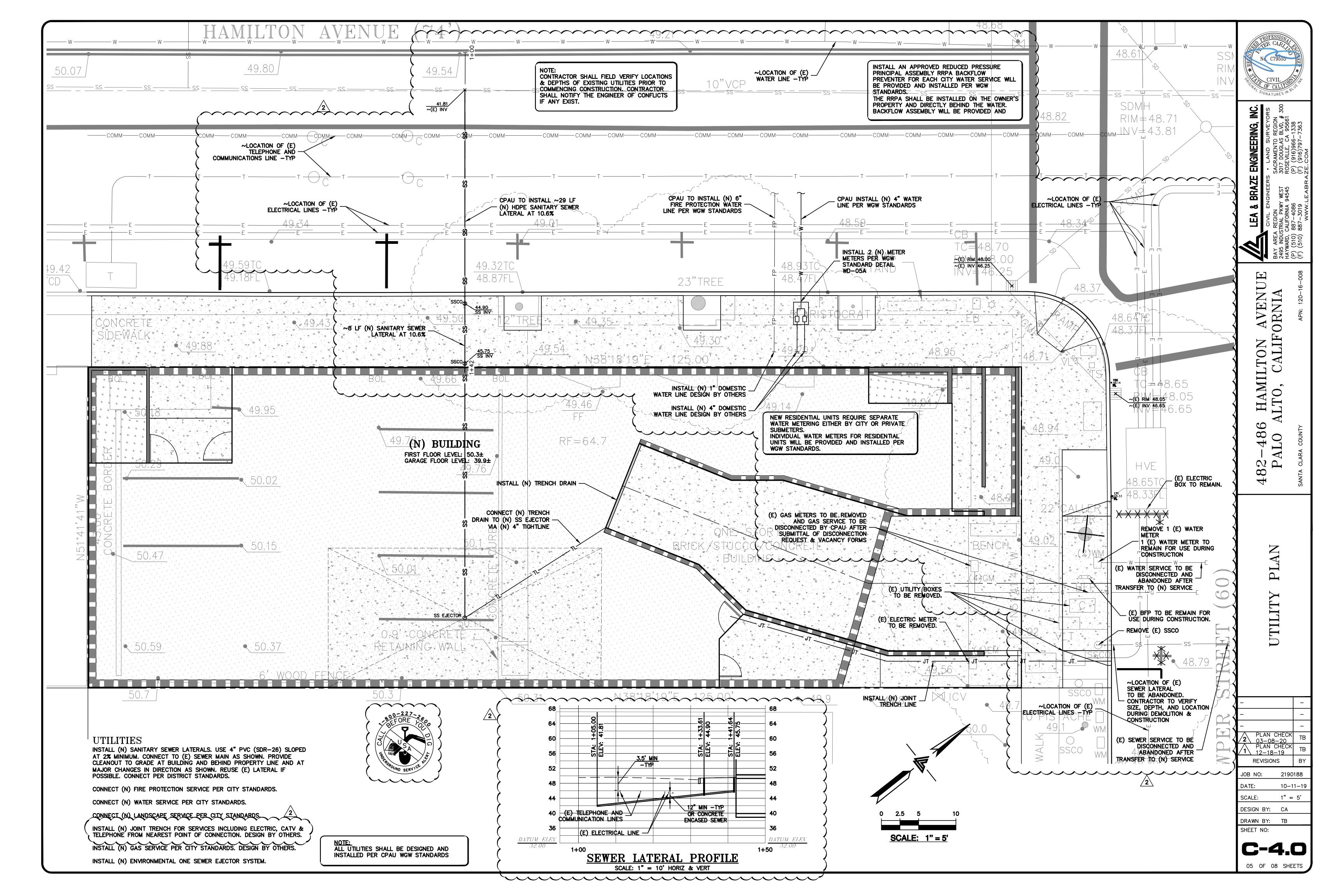
JOB NO: 2190188 DATE: 1" = 8' SCALE: DESIGN BY: CA DRAWN BY: TB

SHEET NO:

02 OF 08 SHEETS







PURPOSE:

THE PURPOSE OF THIS PLAN IS TO STABILIZE THE SITE TO PREVENT EROSION OF GRADED AREAS AND TO PREVENT SEDIMENTATION FROM LEAVING THE CONSTRUCTION AREA AND AFFECTING NEIGHBORING SITES, NATURAL AREAS, PUBLIC FACILITIES OR ANY OTHER AREA THAT MIGHT BE AFFECTED BY SEDIMENTATION. ALL MEASURES SHOWN ON THIS PLAN SHOULD BE CONSIDERED THE MINIMUM REQUIREMENTS NECESSARY. SHOULD FIELD CONDITIONS DICTATE ADDITIONAL MEASURES, SUCH MEASURES SHALL BE PER CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL AND THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION. LEA & BRAZE ENGINEERING SHOULD BE NOTIFIED IMMEDIATELY SHOULD CONDITIONS CHANGE.

EROSION CONTROL NOTES:

- 1. IT SHALL BE THE OWNER'S/CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THIS EROSION CONTROL PLAN.
- 2. THE INTENTION OF THIS PLAN IS FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY. ALL EROSION CONTROL MEASURES SHALL CONFORM TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL. THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION, AND THE LOCAL GOVERNING AGENCY FOR THIS PROJECT.
- 3. OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SÉDIMENT CONTROL MEASURES PRIOR TO, DURING, AND AFTER STORM EVENTS. PERSON IN CHARGE OF MAINTAINING EROSION CONTROL MEASURES SHOULD WATCH LOCAL WEATHER REPORTS AND ACT APPROPRIATELY TO MAKE SURE ALL NECESSARY MEASURES ARE IN PLACE.
- 4. SANITARY FACILITIES SHALL BE MAINTAINED IN SECONDARY CONTAINMENT ON THE SITE AT ALL TIMES.
- 5. ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS YEAR-ROUND, AS OPPOSED TO ONLY DURING THE RAINY SEASON. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATERCOURSES.
- 6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS CONCERNING POLLUTION SHALL BE MAINTAINED AT ALL TIMES.
- 7. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.
- 8. ALL MATERIALS NECESSARY FOR THE APPROVED EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 15TH.
- 9. EROSION CONTROL SYSTEMS SHALL BE INSTALLED AND MAINTAINED YEAR-ROUND.
- 10. IN THE EVENT OF RAIN, ALL GRADING WORK IS TO CEASE IMMEDIATELY AND THE SITE IS TO BE SEALED IN ACCORDANCE WITH THE APPROVAL EROSION CONTROL MEASURES AND APPROVED EROSION CONTROL PLAN.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND REPAIRING EROSION CONTROL SYSTEMS AFTER EACH STORM. IF ANY EROSION AND SEDIMENT CONTROL MEASURES ARE REMOVED FROM THE RIGHT-OF-WAY BY CITY STAFF DURING A RAIN EVENT. THE CONTRACTOR SHALL REPLACE THE EROSION AND SEDIMENT CONTROL MEASURE BY THE END OF THE FOLLOWING BUSINESS DAY.
- 12. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY LOCAL JURISDICTION'S ENGINEERING DEPARTMENT OR BUILDING OFFICIALS.
- 13. MEASURES SHALL BE TAKEN TO COLLECT OR CLEAN ANY ACCUMULATION OR DEPOSIT OF DIRT, MUD, SAND, ROCKS, GRAVEL OR DEBRIS ON THE SURFACE OF ANY STREET. ALLEY OR PUBLIC PLACE OR IN ANY PUBLIC STORM DRAIN SYSTEMS. THE REMOVAL OF AFORESAID SHALL BE DONE BY STREET SWEEPING OR HAND SWEEPING. WATER SHALL NOT BE USED TO WASH SEDIMENTS INTO PUBLIC OR PRIVATE DRAINAGE FACILITIES.
- 14. EROSION CONTROL MEASURES SHALL BE ON-SITE YEAR-ROUND.
- 15. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED YEAR-ROUND.
- 16. PLANS SHALL BE DESIGNED TO MEET C3 REQUIREMENTS OF THE MUNICIPAL STORMWATER REGIONAL PERMIT("MRP") NPDES PERMIT CAS 612008.
- 17. THE CONTRACTOR TO NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) BEST MANAGEMENT PRACTICES (BMP) FOR SEDIMENTATION PREVENTION AND EROSION CONTROL TO PREVENT DELETERIOUS MATERIALS OR POLLUTANTS FROM ENTERING THE TOWN OR COUNTY STORM DRAIN SYSTEMS.
- 18. THE CONTRACTOR MUST INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO THE INCEPTION OF ANY WORK ONSITE AND MAINTAIN THE MEASURES UNTIL THE COMPLETION OF ALL LANDSCAPING.
- 19. THE CONTRACTOR SHALL MAINTAIN ADJACENT STREETS IN A NEAT, CLEAN DUST FREE AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE TOWN INSPECTOR. THE ADJACENT STREET SHALL AT ALL TIMES BE KEPT CLEAN OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. THE CONTRACTOR BE RESPONSIBLE FOR ANY CLEAN UP ON ADJACENT STREETS AFFECTED BY THE BY THEIR CONSTRUCTION, METHOD OF STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS. NO STOCKPILING OF BUILDING MATERIALS WITHIN THE TOWN RIGHT-OF-WAY.
- 20. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONTRACTOR SHALL INSTALL A STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE INSPECTION OF ANY WORK ONSITE AND MAINTAIN IT FOR THE DURATION OF THE CONSTRUCTION PROCESS SO AS TO NOT INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC RIGHT-OF-WAY UNTIL THE COMPLETION OF ALL LANDSCAPING.
- 21. THE CONTRACTOR SHALL PROTECT DOWN SLOPE DRAINAGE COURSES, STREAMS AND STORM DRAINS WITH ROCK FILLED SAND BAGS. TEMPORARY SWALES, SILT FENCES, AND EARTH PERMS IN CONJUNCTION OF ALL LANDSCAPING.
- 22. STOCKPILED MATERIALS SHALL BE COVERED WITH VISQUEEN OR A TARPAULIN UNTIL THE MATERIAL IS REMOVED FROM THE SITE. ANY REMAINING BARE SOIL THAT EXISTS AFTER THE STOCKPILE HAS BEEN REMOVED SHALL BE COVERED UNTIL A NATURAL GROUND COVER IS ESTABLISHED OR IT IS SEEDED OR PLANTED TO PROVIDE GROUND COVER PRIOR TO THE FALL RAINY SEASON.
- 23. EXCESS OR WASTE CONCRETE MUST NOT BE WASHED INTO THE PUBLIC RIGHT-OF-WAYOR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
- 24. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION AND DISPERSAL BY WND

EROSION CONTROL NOTES CONTINUED:

- 24. FUELS, OILS, SOLVENTS AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MUST NOT BE WASHED INTO THE DRAINAGE SYSTEM,
- 25. DUST CONTROL SHALL BE DONE BY WATERING AND AS OFTEN AS REQUIRED BY THE TOWN INSPECTOR.
- 26. SILT FENCE(S) AND/OR FIBER ROLL(S) SHALL BE INSTALLED PRIOR TO SEPTEMBER 15TH AND SHALL RÉMAIN IN PLACE UNTIL THE LANDSCAPING GROUND COVER IS INSTALLED. CONTRACTOR SHALL CONTINUOUSLY MONITOR THESE MEASURES. FOLLOWING AND DURING ALL RAIN EVENTS, TO PUBLIC OWNED FACILITIES.

EROSION CONTROL MEASURES:

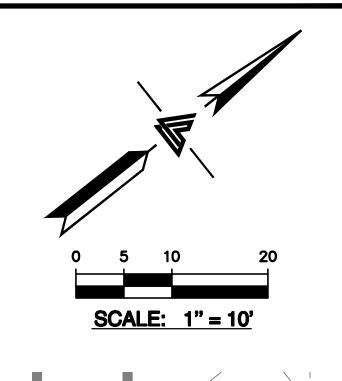
- 1. EROSION CONTROL FACILITIES SHALL BE IN PLACE YEAR-ROUND.
- 2. SITE CONDITIONS AT TIME OF PLACEMENT OF EROSION CONTROL MEASURES WILL VARY. APPROPRIATE ACTION INCLUDING TEMPORARY SWALES. INLETS. HYDROSEEDING, STRAW BALES, ROCK SACKS, ETC. SHALL BE TAKEN TO PREVENT EROSION AND SEDIMENTATION FROM LEAVING SITE. EROSION CONTROL MEASURES SHALL BE ADJUSTED AS THE CONDITIONS CHANGE AND THE NEED OF CONSTRUCTION SHIFT.
- 3. CONSTRUCTION ENTRANCES/EXITS SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCES/EXITS. CONTRACTOR SHALL MAINTAIN STABILIZED ENTRANCE AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE GOVERNING AGENCY.
- 4. ALL EXPOSED SLOPES THAT ARE NOT VEGETATED SHALL BE HYDROSEEDED. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY OCTOBER 15, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED, SUCH AS EROSION CONTROL BLANKETS, OR A THREE-STEP APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) BLOWN STRAW 3) TACKIFIER AND MULCH. HYDROSEEDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF SECTION 20" EROSION CONTROL AND HIGHWAY PLANTING" OF THE STANDARD SPECIFICATION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LAST REVISED. REFER TO THE EROSION CONTROL SECTION OF THE GRADING SPECIFICATIONS THAT ARE A PART OF THIS PLAN SET FOR FURTHER INFORMATION.
- 5. INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT. MINIMUM INLET PROTECTION SHALL CONSIST OF A ROCK SACKS OR AS SHOWN ON THIS PLAN
- 6. THIS EROSION AND SEDIMENT CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN IN THE FIELD. A REPRESENTATIVE OF LEA & BRAZE ENGINEERING SHALL PERFORM A FIELD REVIEW AND MAKE RECOMMENDATIONS AS NEEDED. CONTRACTOR IS RESPONSIBLE TO NOTIFY LEA & BRAZE ENGINEERING AND THE GOVERNING AGENCY OF ANY CHANGES.
- 7. THE EROSION CONTROL MEASURES SHALL CONFORM TO THE LOCAL JURISDICTION'S STANDARDS AND THE APPROVAL OF THE LOCAL JURISDICTION'S ENGINEERING DEPARTMENT.
- 8. STRAW ROLLS SHALL BE PLACED AT THE TOE OF SLOPES AND ALONG THE DOWN SLOPE PERIMETER OF THE PROJECT. THEY SHALL BE PLACED AT 25 FOOT INTERVALS ON GRADED SLOPES. PLACEMENT SHALL RUN WITH THE CONTOURS AND ROLLS SHALL BE TIGHTLY END BUTTED. CONTRACTOR SHALL REFER TO MANUFACTURES SPECIFICATIONS FOR PLACEMENT AND INSTALLATION INSTRUCTIONS.

REFERENCES:

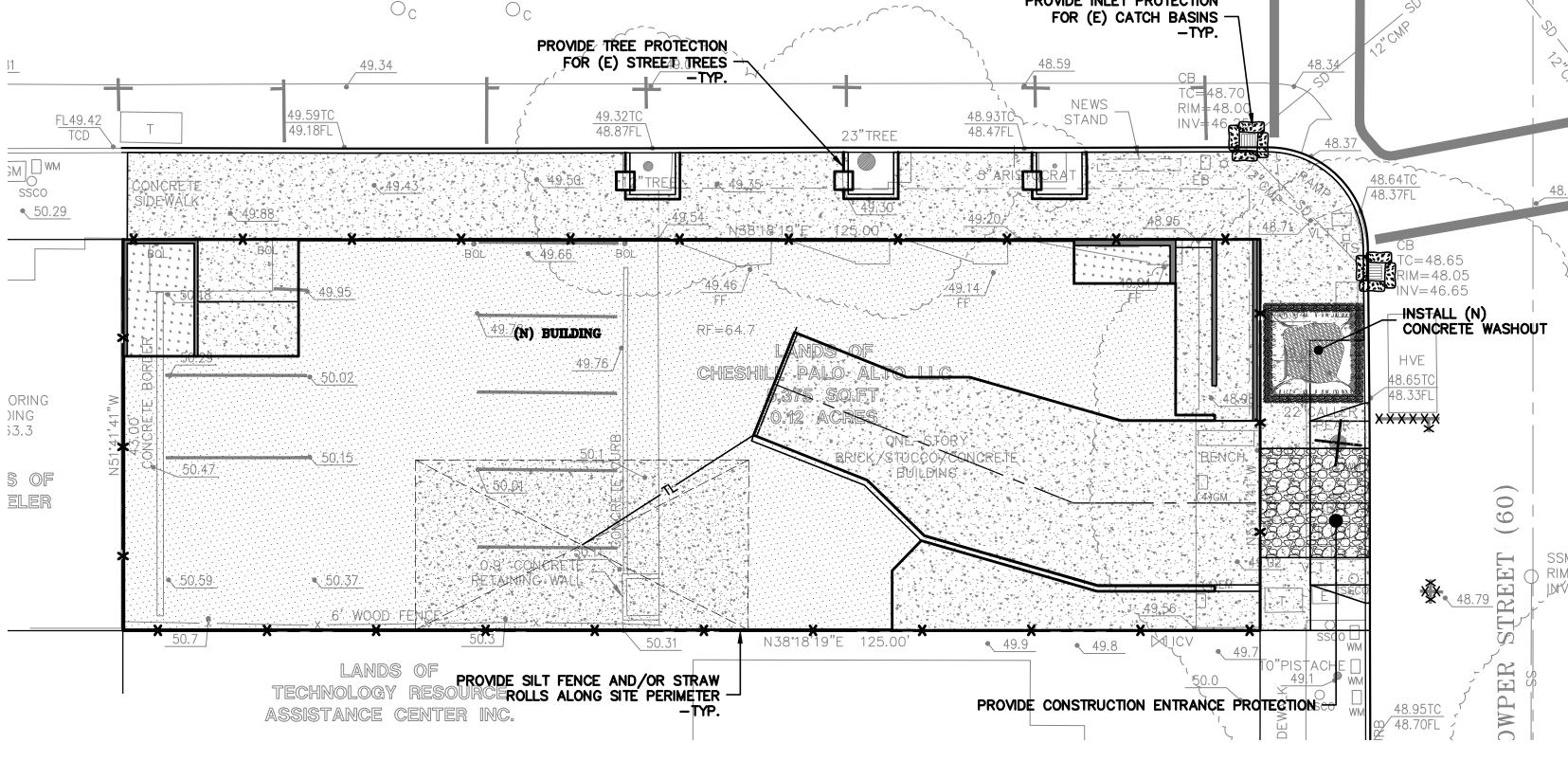
- 1. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL
- 2. CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION

PERIODIC MAINTENANCE:

- 1. MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:
 - A. DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION SHALL BE REPAIRED AT THE END OF EACH WORKING DAY.
 - B. SWALES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED AS
 - C. SEDIMENT TRAPS, BERMS, AND SWALES ARE TO BE INSPECTED AFTER EACH STORM AND REPAIRS MADE AS NEEDED.
 - D. SEDIMENT SHALL BE REMOVED AND SEDIMENT TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1' FOOT.
 - E. SEDIMENT REMOVED FROM TRAP SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
 - F. RILLS AND GULLIES MUST BE REPAIRED.
- 2. GRAVEL BAG INLET PROTECTION SHALL BE CLEANED OUT WHENEVER SEDIMENT DEPTH IS ONE HALF THE HEIGHT OF ONE GRAVEL BAG.
- 3. STRAW ROLLS SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHED HALF THE HEIGHT OF THE ROLL.
- 4. SILT FENCE SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHES ONE FOOT IN HEIGHT.
- 5. CONSTRUCTION ENTRANCE SHALL BE REGRAVELED AS NECESSARY FOLLOWING SILT/SOIL BUILDUP.
- 6. ANY OTHER EROSION CONTROL MEASURES SHOULD BE CHECKED AT REGULAR INTERVALS TO ASSURE PROPER FUNCTION



PROVIDE INLET PROTECTION

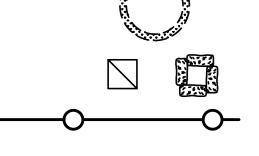


EROSION CONTROL LEGEND

BASIN

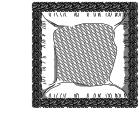
SEDIMENTATION

GRAVEL BAG

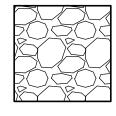


INLET PROTECTION STRAW ROLL





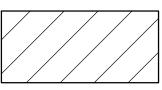
CONCRETE WASHOUT



CONSTRUCTION ENTRANCE



TREE PROTECTION



EROSION CONTROL BLANKET / MATTING

NOTE: SEAL ALL OTHER INLETS NOT INTENDED TO ACCEPT STORM WATER AND DIRECT FLOWS TEMPORARILY TO FUNCTIONAL SEDIMENTATION BASIN INLETS. -TYP



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PLAN CHECK TB 2 03-08-20 PLAN CHECK /**1**\ ₁₂₋₁₈₋₁₉ REVISIONS JOB NO: 2190188 10-11-19 1" = 10'SCALE: DESIGN BY: CA

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SHEET NO:

06 OF 08 SHEETS

NOTES:

RIGHT-OF-WAY

12" MIN. PROVIDE
APPROPRIATE TRANSITION
BETWEEN STABILIZED

CONSTRUCTION ENTRANCE

AND PUBLIC RIGHT-OF-WAY

STRAW ROLL

BUTTED UP —AGAINST

ENTRANCE

4" TO 6"

-ANGULAR

RIP-RAP

CONSTRUCTION

_PUBLIC RIGHT-OF-WAY

PROVIDE DEPRESSION _ TO DIRECT RUN OFF

AWAY FROM PUBLIC RIGHT-OF-WAY

STABILIZED CONSTRUCTION SITE

STONE AGGREGATE.

MINIMUM OF 50'.

ACCESS SHALL BE CONSTRUCTED OF 3" TO 4" WASHED, FRACTURED

MATERIAL SHALL BE PLACED TO A

MINIMUM THICKNESS OF 12". LENGTH OF ENTRANCE SHALL BE A

WIDTH SHALL BE A MIN. OF 15' OR GREATER IF NECESSARY TO COVER ALL VEHICULAR INGRESS AND

EGRESS. PROVIDE AMPLE TURNING RADII.

THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING WITH MATERIAL AS

ACCESSES SHALL BE INSPECTED

WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL

PERIODIC TOP DRESSING SHALL BE

SPECIFIED IN ABOVE NOTE.

USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE

PROVIDED AS NECESSARY.

DONE AS NEEDED.

EXISTING

GROUND

GEOTEXTILE LINER BENEATH

EXISTING GROUND

ER-2

AGGREGATE

<u>SECTION</u>

50' MIN

<u>PLAN</u>

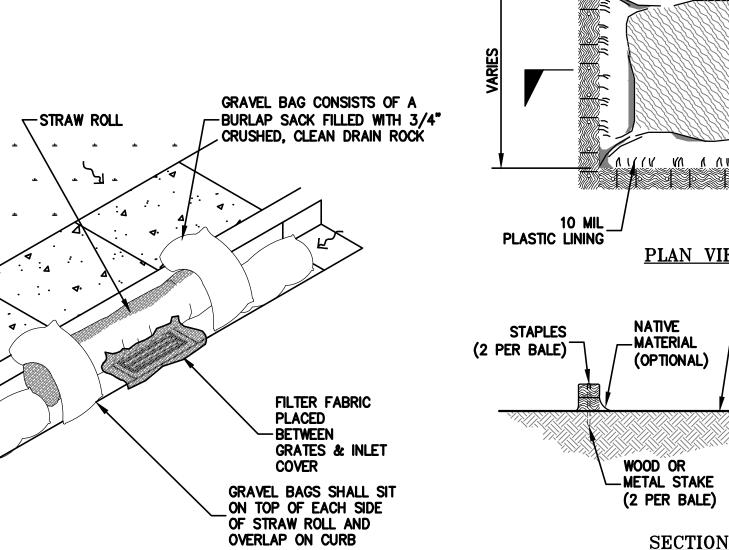
CONSTRUCTION ENTRANCE

ERO

JOB NO: 2190188 DATE: 10-11-19 SCALE: AS NOTED DESIGN BY: CA

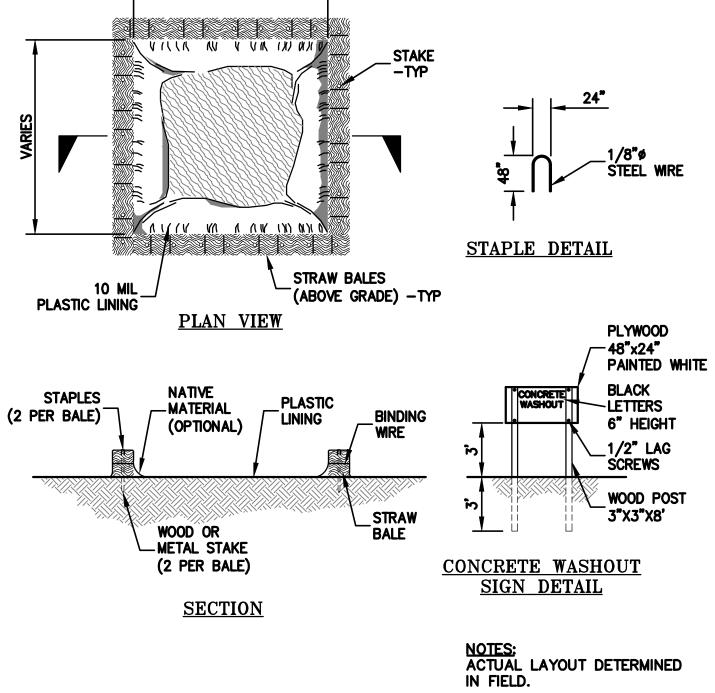
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ER-2 07 OF 08 SHEETS

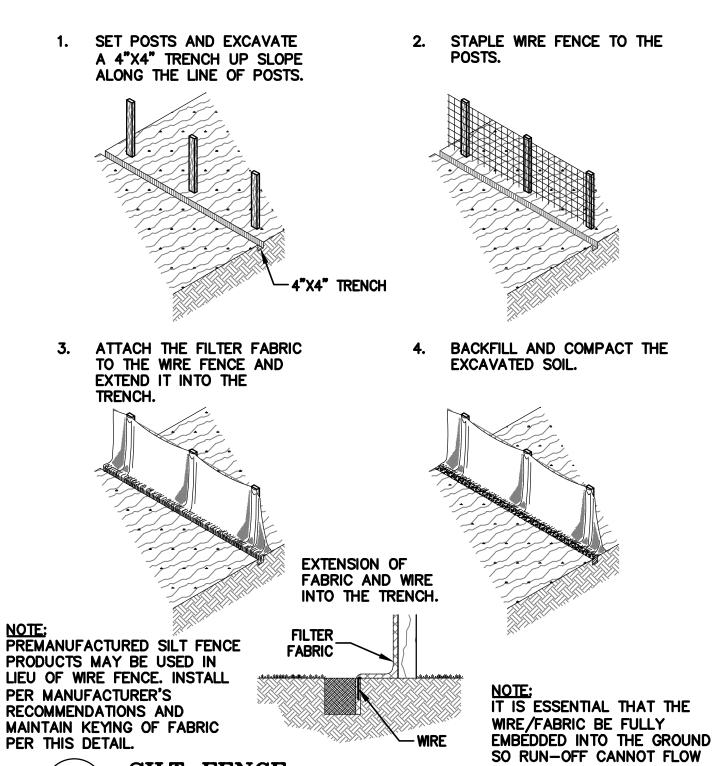




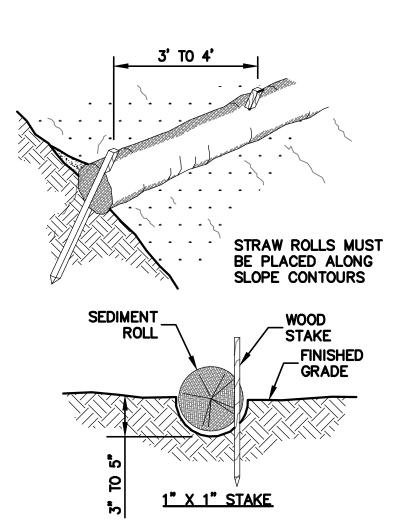
FLOW LINE -







FREELY UNDER FENCE.



NOTE:

1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE PLACEMENT SECURE STAKING SECURE STAKING SECURE STAKING SECURE ROLL IN A TRENCH, 3" TO 5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL. 2. CONTRACTOR IS RESPONSIBLE FOR REGULAR MAINTENANCE AND INSPECTION. THE SILT SHALL BE CLEANED OUT WHEN IT REACHES HALF THE HEIGHT OF THE ROLL.

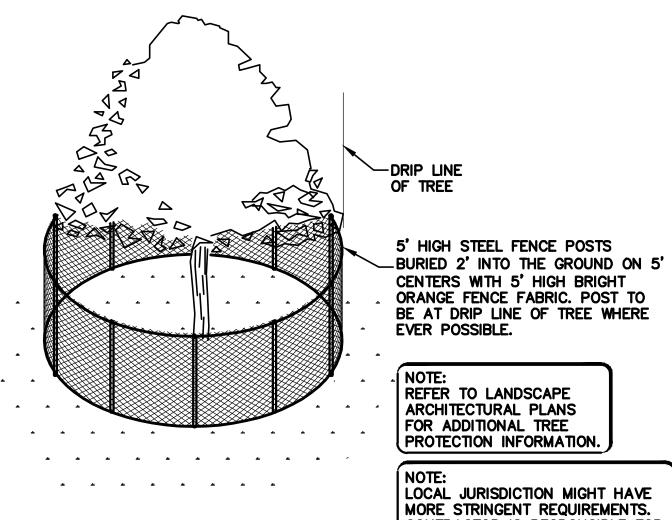


6" COBBLE _ STONE MIN

ER-2

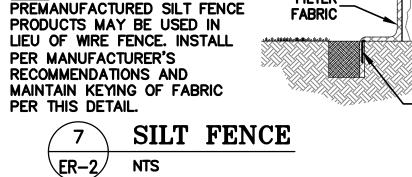
FILTER FABRIC _ TO COVER INLET

INLET PROTECTION



CONTRACTOR IS RESPONSIBLE FOR COORDINATING W/ INSPECTOR TO ENSURE PROPER PROCEDURES ARE BEING FOLLOWED.

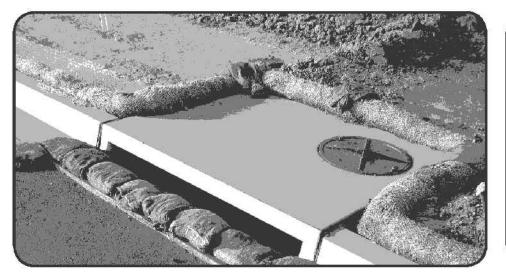




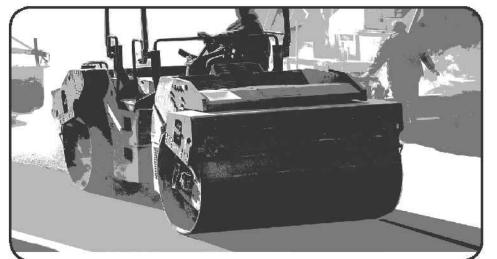
Runoff from streets and other paved areas is a major source of pollution to San Francisco Bay. Construction activities can directly affect the health of the Bay unless contractors and crews plan ahead to keep construction dirt, debris, and other pollutants out of storm drains and local creeks. Following these guidelines will ensure your compliance with City of Palo Alto Ordinance requirements.













MATERIALS & WASTE **MANAGEMENT**

Non-Hazardous Materials

- ☐ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or when they are not in use.
- ☐ Use (but don't overuse) reclaimed water for dust control.
- ☐ Ensure dust control water doesn't leave site or discharge to storm drains.

Hazardous Materials

- ☐ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and
- ☐ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ☐ Follow manufacturer's application instructions for hazardous materials and do not use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ☐ Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- ☐ Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. A plastic liner is recommended to prevent leaks. Never clean out a dumpster by hosing it down on the construction site.
- ☐ Place portable toilets away from storm drains. Make sure they are in good working order. Check frequently for leaks.
- ☐ Dispose of all wastes and demolition debris properly. Recycle materials and wastes that can be recycled, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation.
- ☐ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.
- ☐ Keep site clear of litter (e.g. lunch items, cigarette butts).
- ☐ Prevent litter from uncovered loads by covering loads that are being transported to and from site.

Construction Entrances and Perimeter

- ☐ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ☐ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

EQUIPMENT MANAGEMENT EARTHMOVING & SPILL CONTROL

Maintenance and Parking

- ☐ Designate an area of the construction site, well away from streams or storm drain inlets and fitted with appropriate BMPs, for auto and equipment parking, and storage.
- ☐ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ☐ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ☐ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ☐ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment, and do Contaminated Soils not use diesel oil to lubricate equipment or parts onsite.

Spill Prevention and Control

- ☐ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ☐ Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks. Use drip pans to catch leaks until repairs are made.
- ☐ Clean up leaks, drips and other spills immediately and dispose of cleanup materials properly.
- ☐ Use dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags).
- to "wash them away" with water, or bury them. ☐ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.

☐ Sweep up spilled dry materials immediately. Never attempt

☐ Report any hazardous materials spills immediately! Call City of Palo Alto Communications, (650) 329-2413. If the spill poses a significant hazard to human health and safety, property or the environment, you must report it to the State Office of Emergency Services. (800) 852-7550 (24 hours).

Grading and Earthwork

- ☐ Schedule grading and excavation work during dry weather. ☐ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ☐ Remove existing vegetation only when absolutely necessary, plant temporary vegetation for erosion control on slopes or where construction is not immediately planned.
- ☐ Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses and streams by installing and maintaining appropriate BMPs (e.g., silt fences, gravel bags, fiber rolls, temporary swales, etc.).
- ☐ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

- ☐ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
- Unusual soil conditions, discoloration, or odor.
- Abandoned underground tanks.
- Abandoned wells.
- Buried barrels, debris, or trash.
- ☐ If the above conditions are observed, document any signs of potential contamination and clearly mark them so they are not distrurbed by construction activities.

Landscaping

- ☐ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ☐ Stack bagged material on pallets and under cover.
- ☐ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet

CONCRETE MANAGEMENT & DEWATERING

Concrete Management

- ☐ Store both dry and wet materials under cover, protected from rainfall and runoff and away from storm drains or waterways. Store materials off the ground, on pallets. Protect dry materials from wind.
- ☐ Wash down exposed aggregate concrete only when the wash water can (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) block any storm drain inlets and vacuum washwater from the gutter. If possible, sweep first.
- ☐ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and make sure wash water does not leach into the underlying soil. (See CASQA Construction BMP Handbook for properly designed concrete washouts.)

Dewatering

STORM DRAIN POLLUTERS MAY BE LIABLE FOR FINES OF UP TO \$10,000 PER DAY!

- ☐ Reuse water for dust control, irrigation or another on-site purpose to the greatest extent possible.
- ☐ Be sure to obtain a Permit for Construction in the Public Street from Public Works Engineering before discharging water to a street, gutter, or storm drain. Call the Regional Water Quality Control Plant (RWQCP) at (650) 329-2598 for an inspection prior to commencing discharge. Use filtration or diversion through a basin, tank, or sediment trap as required by the approved dewatering plan. Dewatering is not permitted from October to April.
- ☐ In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the City inspector to determine what testing to do and to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.

PAVING/ASPHALT WORK

Paving

- ☐ Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ☐ Cover storm drain inlets and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- ☐ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into

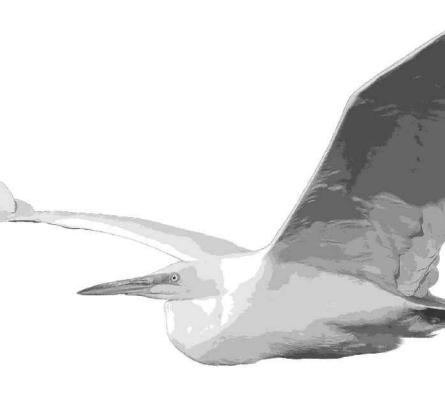
Sawcutting & Asphalt/Concrete Removal

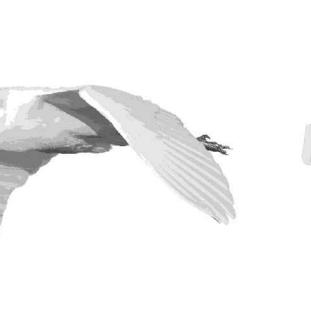
- ☐ Protect storm drain inlets during saw cutting.
- ☐ If saw cut slurry enters a catch basin, clean it up immediately.
- ☐ Shovel or vacuum saw cut slurry deposits and remove from the site. When making saw cuts, use as little water as possible. Sweep up, and properly dispose of all residues.

PAINTING & PAINT REMOVAL

Painting Cleanup and Removal

- □ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ☐ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- ☐ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- □ Sweep up or collect paint chips and dust from nonhazardous dry stripping and sand blasting into plastic drop cloths and dispose of as trash.
- ☐ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state certified contractor.





250 Hamilton Avenue Palo Alto, CA 94301 650.329.2211 cityofpaloalto.org





ALTO

SHEET NO:

PLAN CHECK TB
03-08-20
PLAN CHECK TB
12-18-19

TB

2190188

10-11-19

NO SCALE

REVISIONS

DESIGN BY: CA

DRAWN BY: TB

JOB NO:

DATE:

SCALE:

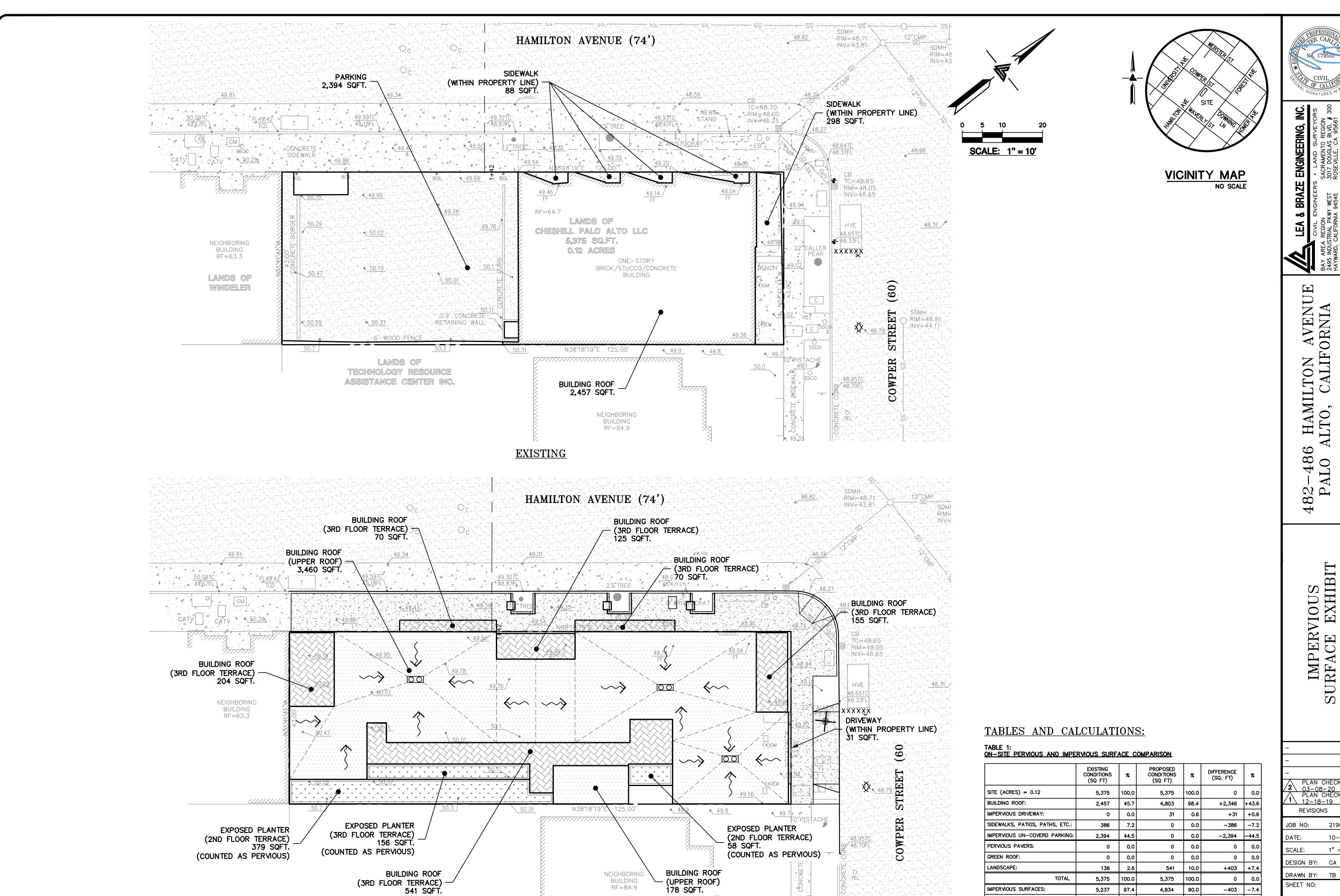
HAMILTON AVENUE LTO, CALIFORNIA

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PROPOSED



PLAN CHECK 03-08-20 PLAN CHECK 12-18-19 REVISIONS JOB NO: 2190188 10-11-19 1" = 10' DESIGN BY: CA DRAWN BY: TB

SHEET NO: SCP-1 09 OF 08 SHEETS

-403 | -7.4

+403 | +7.4

0.0

4,834 90.0

5,375 100.0

541 | 10.0

5,237 | 97.4

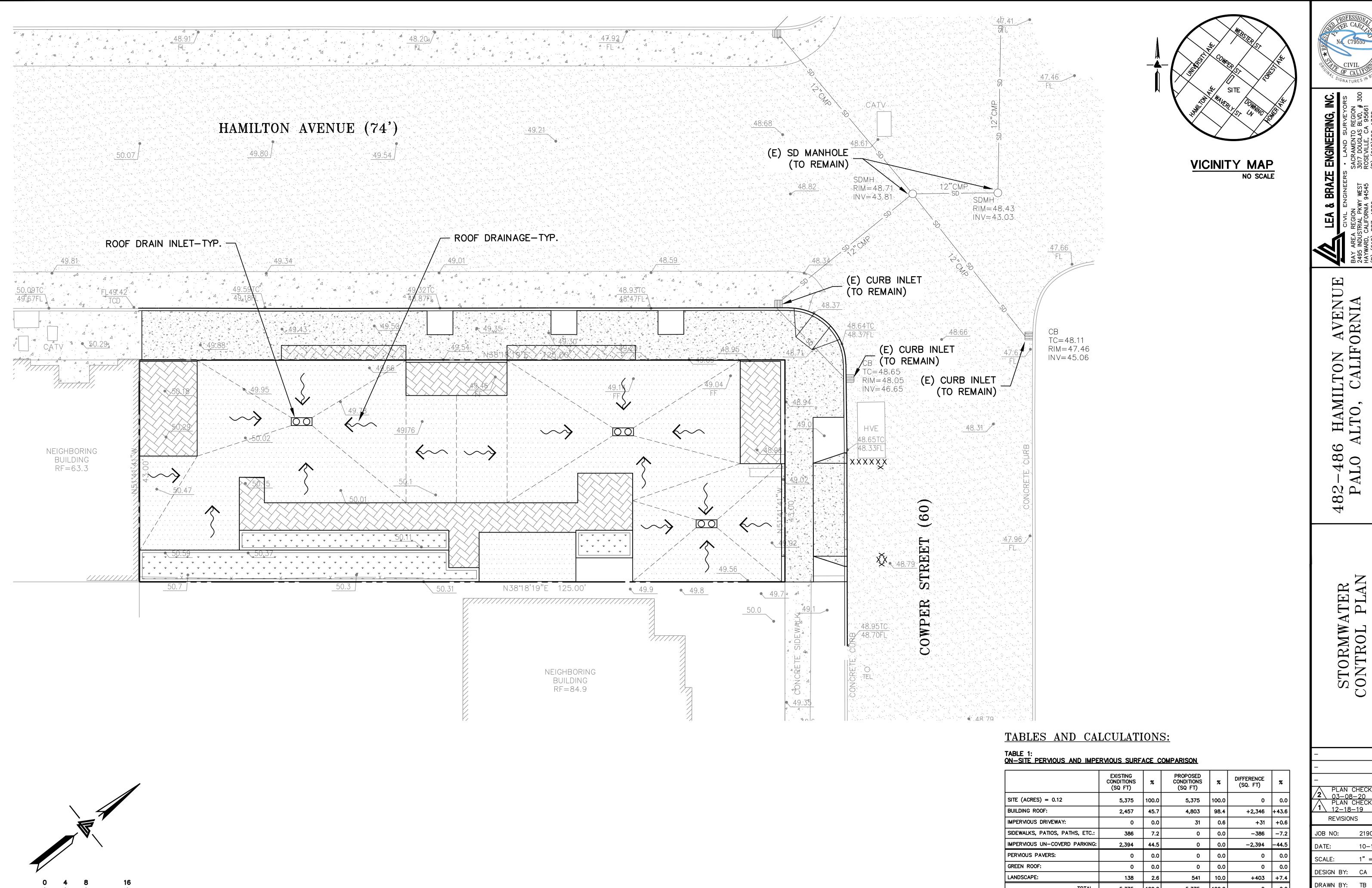
138

5,375

TOTAL

IMPERVIOUS SURFACES:

PERVIOUS SURFACES:



SCALE: 1" = 8'

HAMILTON AVENUE ALTO, CALIFORNIA 32-486 PALO A

STORMWATER ONTROL PLAN

PLAN CHECK 03-08-20 PLAN CHECK 12-18-19 REVISIONS JOB NO: 2190188 10-11-19 1" = 8'



5,375 | 100.0 |

4,834 90.0

5,375 | 100.0

541 10.0

-403 | **-7.4** |

+403 | +7.4

TOTAL

TOTAL

IMPERVIOUS SURFACES:

PERVIOUS SURFACES:

5,375 | 100.0

5,237 97.4

138

5,375

