COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: February 4, 2021

TO: Zoning Hearing Officer

FROM: Planning Staff

SUBJECT: Consideration of a Minor Subdivision, pursuant to Section 7002 of the County Subdivision Regulations to subdivide a 11,780 sq. ft. parcel into four townhouse units and one common interest parcel at 20 Dexter Avenue in the unincorporated North Fair Oaks area of San Mateo County. The project includes the removal of one 30-inch dbh (diameter at breast height) redwood tree.

County File Number: PLN 2020-00097 (Ryan Lai)

PROPOSAL

The applicant proposes to subdivide an 11,780 sq. ft. legal parcel into four townhouse units and the airspace above and one common interest parcel as shows in table 1. The purpose of the subdivision is to construct 4 townhomes to be sold off separately. The townhomes would be 3 stories and all units would have a shared access off of Dexter Avenue. One 30-inch (DBH) redwood tree is proposed for removal due to poor health and proximity to the proposed structures.

Table 1
Tentative Parcel Map Proposal

	Square Footage
Parcel A, Common Interest Parcel	6,544
Unit 1	1,155
Unit 2	1,175
Unit 3	1,175
Unit 4	1,372

RECOMMENDATION

Staff recommends approval of the Minor Subdivision, County File Number PLN 2020-00097, based on the required findings and subject to the conditions of approval listed in Attachment A.

BACKGROUND

Report Prepared By: Kanoa Kelley, Project Planner, kkelley@smcgov.org

Applicant/Owner: Ryan Lai

Location: 20 Dexter Avenue, North Fair Oaks. At the intersection of E. Selby Lane and Dexter Avenue

APN: 060-273-140

Parcel Size: 11,780 sq. ft.

Existing Zoning: R-3, S-5 (Multiple Family Residential, Minimum Lot size 5,000 sq. ft.)

General Plan Designation: Medium High Density Residential, Urban (8.8-17.4 dwelling units/acre)

Parcel Legality: The parcel was developed with a single family residence constructed in 1929.

Sphere-of-Influence: Redwood City

Existing Land Use: Single-Family Residential

Water Service: California Water Service, Bear Gulch

Sewage Disposal: Fair Oaks Sewer Maintenance District

Fire Authority: Menlo Park Fire Protection District

Flood Zone: FEMA Designation: Flood Zone X (Areas of Minimal Flooding), FEMA Panel No. 06081C0302E and 06081C0304E, effective October 16, 2012.

Environmental Evaluation: The project is categorically exempt, pursuant to the California Environmental Quality Act (CEQA) Guidelines, Section 15315 (Class 15), related to minor division of land (into four or fewer parcels), as the division is in conformance with the General Plan and zoning, no variances or exceptions are required, all services and access to the proposed parcels to local standards are available, the parcel was not involved in a division of a larger parcel within the previous 2 years, and the parcel does not have an average slope greater than 20 percent.

Setting: The subject parcel is located at 20 Dexter Avenue in the unincorporated North Fair Oaks area of San Mateo County. The 11,780 sq. ft. parcel is currently developed with a 2,799 square foot triplex, the building remains vacant with no tenants living on site. A building permit to demolish the existing building is currently under review (BLD

2020-00297). The parcel is surrounded by single-family homes in the NMU-1 and R-1 zones (Attachment B- Vicinity Map and Aerial Photo).

DISCUSSION

A. KEY ISSUES

1. Conformance with the General Plan

The County General Plan designates this area for Medium High Density Residential, which allows for residential development at the density of 8.8-17.4 dwelling units per acre. Based on the allowed density range, 2.37-4.7 units are permitted on the 11,780 (.27 acres) square foot parcel. Therefore, the proposed 4 units are consistent with the general plan density. All public services and infrastructure are available to serve the proposed parcels.

General Plan Policy 8.30 (*Infilling*) encourages the infilling of urban areas where infrastructure and services are available. The project was reviewed by the applicable water and sanitary districts; both districts stated that there is adequate capacity to provide respective service to the additional units. Additionally, the General Plan encourages increasing urban densities by redeveloping underutilized parcels, such as proposed with this project, as it is more cost effective than building new communities and their related infrastructure.

2. Conformance with the North Fair Oaks Community Plan

The North Fair Oaks (NFO) Community Plan identifies the parcel with a Multi-family Residential land use designation. The multi-family residential designation requires 24-60 dwelling units per acre. While the 0.27-acre parcel would need to supply a minimum of 6.5 units to comply with the NFO Community Plan designation, the project otherwise conforms with General Plan and zoning densities. The NFO Community Plan designation was intended to consolidate the medium-high and high density general plan land use designations. Therefore, while the project does not conform with the specified minimum Community Plan density of 24 units per acre, staff finds that the project is in substantial conformance with the intent of the Community Plan's Multi-family Residential land use designation as the project will result in an increase in the number of entry level housing units available.

3. Compliance with Zoning Regulations

The subject parcel is zoned R-3/S-5 (Multiple Family Residential/S-5 Combining District). The applicant submitted a footprint analysis that includes the building envelope of the 4 townhouse units (shown in

Attachment C); the building envelope is compliant with R-3/S-5 Zoning Standards as shows in Table 2 below.

The project is exempt from the minimum lot size requirements per Section 7020.2.b of the County Subdivision Regulations which exempts single-family attached residential from these provisions.

Table 2
S-5 Combining District Standards

	S-5 Development Standards	**Proposed**
Minimum Site Area	5,000 sq. ft.	11,780 sq. ft. (legal parcel)
Average Width	50 feet	67.49 feet
Minimum Lot Area Per Dwelling Unit	2,500 sq. ft.	2,945 sq. ft.
Minimum Front Setback	20 ft.	20 ft.
Minimum Rear Setback	20 ft.	20 ft.
Minimum Right Side Setback	5 ft.	5 ft.
Minimum Left Side Setback	5 ft.	24 ft.
Maximum Building Height	36 feet/3 stories	34 Feet 3 inches, 3 stories
Maximum Coverage Permitted	50%	35%

Parking Compliance

The townhome development plans show each townhome unit with a two (2) car garage. Per the San Mateo County Zoning Regulations, Chapter 3, Section 6119 (Parking Spaces Required), two (2) spaces are required for each dwelling unit having 2 or more bedrooms. Each of the townhome units will have 3 bedrooms requiring a total of 8 parking spaces. The townhome development will provide 2 covered parking spaces per unit within individual private garages. The anticipated townhome development would conform with County parking requirements.

4. Conformance with Subdivision Regulations

The proposed tentative parcel map (Attachment C) for the minor subdivision has been reviewed by staff under the provisions of the County Subdivision Regulations which implement the Subdivision Map Act (Section 66410, et seq., of the Government Code of the State of California). The County's

Building Inspection and Drainage Section, Department of Public Works, and the Menlo Park Fire Protection District, Fair Oaks Sewer Maintenance District, and California Water Service have also reviewed the proposed project and found that, as conditioned, it complies with their respective standards.

A preliminary soils report was reviewed and approved by the Planning and Building Department's Geotechnical Section, with a condition that additional analysis would be required during the building permit phase for the residential structures. Additionally, a conceptual drainage plan has been reviewed and approved with conditions by the Drainage Section included in Attachment A to require submittal of a drainage analysis by a registered civil engineer along with the building permit application for the townhomes.

In order to approve this subdivision, the Zoning Hearing Officer must make the following findings as defined in Section 7013.3.b. of the Subdivision Regulations:

Subdivision Findings:

1-2. That the proposed map and the design and improvement of the proposed subdivision is consistent with applicable general and specific plans. As discussed in Section A.2 and A.3, the County General Plan designates this area as Medium High Density Residential, 8.8-17.4 dwelling units per acre. The proposed density, after subdivision, would be 14.8 dwelling units per acre, which is within the allowed General Plan range. The North Fair Oaks Community Plan designates the parcel as Multi-family Residential, 24 – 60 dwelling units per acre, however, this community plan designation was intended to consolidate the General Plan land use designations of Medium-High and High Density Residential. Therefore, while the project does not conform with the minimum Community Plan density of 24 units per acre, the project results in an increase in the number of housing units on site and is in substantial conformance with the General Plan and the intent of the NFO Community Plan's Multi-Family Residential land use designation. Additionally, all public services and infrastructure are available to serve the proposed lots.

3-4. That the site is physically suitable for the type and proposed density of development. The proposed subdivision is in an established residential neighborhood and complies with zoning and general plan density requirements. The site is therefore physically suitable for the type and the proposed density of development. Utility connections are also available to serve future development. The applicant is required to confirm the availability of sewer and water connections for both parcels prior to recordation of the parcel map.

5. That the design of the subdivision or type of improvements is not likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

   The design of the subdivision and the proposed improvements would not substantially injure fish or wildlife or their habitat, as the site is not located within 100 feet of any water bodies or sensitive habitat areas. Additionally, planning staff has included conditions of approval in Attachment A to require that the project minimize the transport and discharge of pollutants from the project site into local storm drain systems and water bodies by adhering to the San Mateo Countywide Stormwater Prevention Programs and General Construction and Site Supervision Guidelines throughout the duration of subdivision improvements.

6. That the design of the subdivision or type of improvements is not likely to cause serious public health problems. There is no evidence to suggest that the project would create a public health problem or cause substantial environmental damage.

7-8. That the design of the subdivision or the type of improvements will not conflict with easements acquired by the public-at-large for access through or use of property within the proposed subdivision. There are no existing access easements on the parcel.

9. That the discharge of waste from the proposed subdivision into an existing community sewer system would not result in violation of existing requirements prescribed by a State Regional Water Quality Control Board pursuant to Division 7 (commencing with Section 13000) of the State Water Code. The Fair Oaks Sewer Maintenance District has indicated that sewer capacity is available.

10. That, since the land is not subject to a Williamson Act Contract, the finding regarding Williamson Act Contract compliance related to sustaining agricultural use is not applicable.

11. That, since the land is not located in a very high fire hazard severity zone or state responsibility area, as defined in Section 51177 of the California Government Code, the project is not subject to the fire safety provisions of Section 7013.3.c.(11)(a-c) of the County Subdivision Regulations.

12. That, since the proposed subdivision does not include land designated in the County General Plan as open space and is not located in a state responsibility area or a very high fire hazard severity zone, the finding regarding consistency with open space purposes and the requirement

for a recorded restriction prohibiting the development of a habitable, industrial or commercial building or structure is not applicable.

13. That pursuant to Section 7005 of the Subdivision Regulations, in carrying out the provisions of the Subdivision Regulations, the County has considered the effect of actions taken pursuant to these regulations on the housing needs of the region and the housing needs of the County as expressed in the Housing Chapter of the County's General Plan and has balanced these needs against the public service needs of residents. The proposed subdivision will support an increase in housing supply in the North Fair Oaks area that is expected to be more affordable as townhome units than individual detached single-family residences.

5. Compliance with In-Lieu Park Fees

Section 7055.3 (Fees In-Lieu of Land Dedication) of the County Subdivision Regulations requires that, as a condition of approval of the tentative map, the sub divider pay an in-lieu fee prior to recordation of the Final Parcel Map. This fee is for acquisition, development or rehabilitation of County parks and recreation facilities, and/or to assist other providers of park and recreation facilities to acquire, develop or rehabilitate facilities that will serve the proposed subdivision. The section further defines the formula for calculating this fee. The fee for this subdivision is $147,033; however, fees are based on the current land value provided by the County Assessor's Office at the time of payment and are subject to change. A worksheet showing the prescribed calculation is shown in Attachment E.

6. Tree Removal Protection and Replacement

Section 12,2012 of the County Significant Tree Ordinance define a "Significant Tree" as a live woody plan rising above the ground with a single stem or trunk of a circumference of 38 inches or more or 12 inches in diameter measure and 4 1/2 feet vertical above ground. All significant trees require a permit for removal.

The applicant proposes to remove one 30-inch (DBH) redwood tree due to the proximity to the project and the poor health as documented by the arborist report prepared by Kielty Arborist Services, dated November 18, 2019 (Attachment D-Arborist Report). In order to maximize the use of the parcel and remove risk of property damage, tree removal is requested.

The driveway which will provide access to the townhomes will be in the same area as the current driveway. The current driveway is gravel and will be replaced with a paved driveway. According to the arborist report the driveway may impact the root systems of trees adjacent to the driveway.

The arborist report recommends a maximum excavation depth of 6 inches and the application of a geotextile underneath to reduce compaction and minimize impact to these trees. The recommendations will be implemented in the final driveway design.

Staff recommends approval of proposed tree removal as the poor health and proximity of the redwood would pose a safety risk and would increase the risk of property damage.

B. NORTH FAIR OAKS COMMUNITY COUNCIL

This item has been continued from the December 17, 2020 to February 4th , 2021 to allow the North Fair Oaks Community Council the opportunity to review the project on January 28th , 2021. On January 12, 2021 staff conducted a community meeting to introduce the neighborhood to the project and allow participants to provide feedback. In general, the community was concerned with the preservation of trees and the ability of the 3 story project to fit into the character of the neighborhood. On January 28th the North Fair Oaks Community council voted 3 to 2, with Everardo Rodriquez abstaining, to recommend approval of the project.

C. ENVIRONMENTAL REVIEW

The project is categorically exempt, pursuant to the California Environmental Quality Act (CEQA) Guidelines, Section 15315 (Class 15), related to minor division of land (into four or fewer parcels), as the division is in conformance with the General Plan and zoning, no variances or exceptions are required, all services and access to the proposed parcels to local standards are available, the parcel was not involved in a division of a larger parcel within the previous 2 years, and the parcel does not have an average slope greater than 20 percent.

REVIEWING AGENCIES

Department of Public Works
Building Inspection Section
Geotechnical Section
Drainage Section
Menlo Fark Fire Protection District
Fair Oaks Sewer District
California Water Service- Bear Gulch District

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Vicinity and Aerial Map
C. Proposed Tentative Parcel Map

D. Arborist Report
E. In-Lieu Park Fee Worksheet

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Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2020-00097 Hearing Date: Februrary 4, 2021

Prepared By: Kanoa Kelley, Project Planner For Adoption By: Zoning Hearing Officer

RECOMMENDED FINDINGS

For the Environmental Review, Find:

1. The project is categorically exempt, pursuant to the California Environmental Quality Act (CEQA) Guidelines, Section 15315 (Class 15), related to minor division of land (into four or fewer parcels), as the division is in conformance with the General Plan and zoning, no variances or exceptions are required, all services and access to the proposed parcels to local standards are available, the parcel was not involved in a division of a larger parcel within the previous 2 years, and the parcel does not have an average slope greater than 20 percent.

For the Minor Subdivision, Find:

1-2. That the proposed map and the design and improvement of the proposed subdivision is consistent with applicable general and specific plans. As discussed in Section A.2 and A.3, the County General Plan designates this area as Medium High Density Residential, 8.8-17.4 dwelling units per acre. The proposed density, after subdivision, would be 14.8 dwelling units per acre, which is within the allowed General Plan range. The North Fair Oaks Community Plan designates the parcel as Multi-family Residential, 24 – 60 dwelling units per acre, however, this community plan designation was intended to consolidate the General Plan land use designations of Medium-High and High Density Residential. Therefore, while the project does not conform with the minimum Community Plan density of 24 units per acre, the project results in an increase in the number of housing units on site and is in substantial conformance with the General Plan and the intent of the NFO Community Plan's Multi-Family Residential land use designation. Additionally, all public services and infrastructure are available to serve the proposed lots.

3-4. That the site is physically suitable for the type and proposed density of development. The proposed subdivision is in an established residential neighborhood and complies with zoning and general plan density requirements. The site is therefore physically suitable for the type and the proposed density of development. Utility connections are also available to serve future development. The applicant is required to confirm the availability of sewer and water connections for both parcels prior to recordation of the parcel map.

5. That the design of the subdivision or type of improvements is not likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat. The design of the subdivision and the proposed improvements would not substantially injure fish or wildlife or their habitat, as the site is not located within 100 feet of any water bodies or sensitive habitat areas. Additionally, planning staff has included conditions of approval in Attachment A to require that the project minimize the transport and discharge of pollutants from the project site into local storm drain systems and water bodies by adhering to the San Mateo Countywide Stormwater Prevention Programs and General Construction and Site Supervision Guidelines throughout the duration of subdivision improvements.

6. The design of the subdivision or type of improvements is not likely to cause serious public health problems. There is no evidence to suggest that the project would create a public health problem or cause substantial environmental damage.

7-8. That the design of the subdivision or the type of improvements will not conflict with easements acquired by the public-at-large for access through or use of property within the proposed subdivision. There are no existing access easements on the parcel.

9. That the discharge of waste from the proposed subdivision into an existing community sewer system would not result in violation of existing requirements prescribed by a State Regional Water Quality Control Board pursuant to Division 7 (commencing with Section 13000) of the State Water Code. The Fair Oaks Sewer Maintenance District has indicated that sewer capacity is available.

10. That, since the land is not subject to a Williamson Act Contract, the finding regarding Williamson Act Contract compliance related to sustaining agricultural use is not applicable.

11. That, since the land is not located in a very high fire hazard severity zone or state responsibility area, as defined in Section 51177 of the California Government Code, the project is not subject to the fire safety provisions of Section 7013.3.c.(11)(a-c) of the County Subdivision Regulations.

12. That, since the proposed subdivision does not include land designated in the County General Plan as open space and is not located in a state responsibility

area or a very high fire hazard severity zone, the finding regarding consistency with open space purposes and the requirement for a recorded restriction prohibiting the development of a habitable, industrial or commercial building or structure is not applicable.

13. That pursuant to Section 7005 of the Subdivision Regulations, in carrying out the provisions of the Subdivision Regulations, the County has considered the effect of actions taken pursuant to these regulations on the housing needs of the region and the housing needs of the County as expressed in the Housing Chapter of the County's General Plan and has balanced these needs against the public service needs of residents. The proposed subdivision will support an increase in housing supply in the North Fair Oaks area that is expected to be more affordable as townhome units than individual detached single-family residences.

CONDITIONS OF APPROVAL

Current Planning Section

1. This approval applies to the proposal, documents and plans described in this report and approved by the Zoning Hearing Officer on December 17, 2020. Minor modifications to the project may be approved by the Community Development Director if they are consistent with the intent of, and in substantial conformance with, this approval.

2. This subdivision approval is valid for two years, during which time a parcel map shall be recorded. An extension to the time period, pursuant to Section 7013.5 of the County Subdivision Regulations, may be issued by the Planning Department upon written request and payment of any applicable extension fees prior to the expiration date.

3. Prior to the recordation of the parcel map, the applicant shall submit a draft of the development's Home Owners Association (HOA) membership agreement with by-laws and Covenants, Conditions and Restrictions (CC&R's) for review and approval by the Community Development Director.

4. Prior to recordation of the parcel map, the applicant shall pay to the San Mateo County Planning and Building Department in-lieu park fees as required by County Subdivision Regulations Section 7055.3. The fees shall be based upon the assessed value of the project parcel at the time of payment and calculated as shown on the worksheet included as Attachment D of this staff report.

5. Prior to recordation of the parcel map, the applicant shall pay to the San Mateo County Planning and Building Department in-lieu park fees as required by County Subdivision Regulations, Section 7055.3. The fees shall be based upon the assessed value of the project parcel at the time of recordation and calculated as shown on the attached worksheet.

6. Prior to the issuance of a building permit for any demolition or future construction, the applicant shall provide an erosion and sediment control plan, which demonstrates how erosion and sediment transport offsite will be minimized during demolition and construction periods. The approved plan shall be implemented prior to issuance of demolition or construction permits and shall be maintained throughout the duration of permitted activities

7. The applicant shall preserve the significant redwood tree proposed for removal until after: 1) The plans submitted for a building permit for each lot demonstrates the necessity to remove the tree and 2) a building permit for construction of the townhome's construction has been issued.

8. Upon future submittal of building permits for the construction of townhomes, the site plan for such development shall include the location and type of one (1) minimum 15-gallon sized native tree. The trees' planting shall be confirmed prior to final inspection approval of the building permit. The applicant may provide such confirmation by emailing photo verification of the planted replacement tree to the Current Planning Section at planningprojects@smcgov.org.

9. During any demolition or future project construction, the applicant is responsible for ensuring that all contractors minimize the transport and discharge of pollutants from the project site into water bodies by adhering to the San Mateo County-wide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines" below:

    a. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 1 and April 30.

    b. Removing spoils promptly and avoiding stockpiling of fill materials, when rain is forecast. If rain threatens, stockpiled spoils and other materials shall be covered with a tarp or other waterproof material.

    c. Storing, handling, and disposing of construction materials and wastes so as to avoid their entry to the storm drain system or water body.

    d. Avoiding cleaning, fueling or maintaining vehicles on-site, except in an area designated to contain and treat runoff.

    e. Limiting and timing applications of pesticides and fertilizer to avoid polluting runoff.

10. The applicant shall provide for the extension of water, gas, electric, cable and television lines to service the new lots. All new electrical lines for the proposed subdivision shall be installed from the nearest existing utility pole. The extension of water, gas and electrical lines will require the issuance of a building permit.

11. Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property shall be limited to the hours from 7:00 a.m. to 6:00 p.m., weekdays and 9:00 a.m. to 5:00 p.m., Saturdays. Said activities are prohibited on Sundays, Thanksgiving, and Christmas (San Mateo Ordinance Code Section 4.88.360).

12. Prior to issuance of a demolition or construction permit, a tree protection plan shall be submitted for review and approval in accordance with Section 12,020.4 and 12,020.5 of the County's Significant Tree Ordinance. Additionally, a tree pre-site inspection shall be passed prior to the issuance of a demolition or construction permit to ensure approved tree protection measures, including those recommended by a certified arborist as required by the relevant provisions of the County's Significant Tree Ordinance, have been satisfactorily implemented.

Drainage Section

13. The applicant shall have prepared, by a Registered Civil Engineer, a drainage analysis of the proposed subdivision and submit it to the Department of Public Works for review and approval. The drainage analysis shall consist of a written narrative and a plan. The flow of the stormwater onto, over, and off of the property being subdivided shall be detailed on the plan and shall include adjacent lands as appropriate to clearly depict the pattern of flow. The analysis shall detail the measures necessary to certify adequate drainage. Post development flows and velocities shall not exceed those that existed in the predeveloped state. Recommended measures shall be designed and included in the street improvement plans and submitted to the Department of Public Works for review and approval.

Geotechnical Section

14. A Geotechnical Report shall be submitted at the time of building permit submittal

Department of Public Works

15. Prior to the issuance of the building permit or planning permit (if applicable), the applicant shall submit a driveway "Plan and Profile," to the Department of Public Works, showing the driveway access to the parcel (garage slab) complying with County Standards for driveway slopes (not to exceed 20 percent) and to County Standards for driveways (at the property line) being the same elevation as the center of the access roadway. When appropriate, as determined by the Department of Public Works, this plan and profile shall be prepared from elevations and alignment shown on the roadway improvement plans. The driveway plan shall also include and show specific provisions and details for both the existing and the proposed drainage patterns and drainage facilities.

16. Should the access shown on the plans go through neighboring properties, the

applicant shall provide documentation that "ingress and egress" easements exist providing for this access, prior to issuance of building permit or recordation of map (if any).

17. No proposed construction work within the County right-of-way shall begin until County requirements for the issuance of an encroachment permit, including review of the plans, have been met and an encroachment permit issued. Applicant shall contact a Department of Public Works Inspector 48 hours prior to commencing work in the right-of-way.

18. The applicant shall execute and record an agreement in a form approved by the County for maintenance of street trees, walkways and other improvements in the public right of way.

19. Prior to the issuance of the building permit, the applicant will be required to provide payment of "roadway mitigation fees" based on the square footage (assessable space) of the proposed building per Ordinance #3277.

20. The applicant shall submit a Parcel Map to the Department of Public Works County Surveyor for review, to satisfy the State of California Subdivision Map Act. The final map will be recorded only after all Inter Department conditions have been met.

21. The applicant shall submit written certification from the appropriate utilities to the Department of Public Works and the Planning and Building Department stating that they will provide utility (e.g., sewer, water, energy, communication, etc.) services to the proposed parcels of this subdivision.

Building Inspection Section

22. Prior to recordation of the parcel map, the applicant shall apply for and have finalized a demolition permit to demolish the structures and buildings on the property. No demolition activity may occur until a valid permit is issued.

Menlo Park Fire Protection District

23. Overhead Electrical Obstruction – Overhead Electrical Utility power lines shall not be located over the aerial fire apparatus access road or between the aerial fire apparatus road and the building.

23. All Emergency Vehicle Access (EVA) Roadways shall be “Publicly Recorded with the County of San Mateo Accessors Office”. As Noted on Sheet T-6 item #5.

24. Fire apparatus roadways, including public and private streets and in some cases, driveways used for vehicle access, shall be capable of supporting the imposed weight of a 75,000 pound (34,050 kg) fire apparatus and shall be provided with an all-weather driving surface. CFC 2016, Appendix D.

25. Private Roadways serving 3 or more residential occupancies shall be al-weather roads with a minimum width of 20 feet and a clear height of 13 feet 6 inches. Roadways shall be designed to accommodate the weight of the fire apparatus and the minimum turning radii of 36 feet for fire apparatus. Dead end roads in excess of 150 feet in length shall be provided with a turn-a-round as specified by CFC Appendix D, Table D103.4.

26. NOTE ON FIELD PLAN: All curbing located within the complex that has not been assigned as onsite parking shall be designated as “No Parking Fire Lane”. All fire lanes to comply with Menlo Park Fire Protection District standard for “Designation and Marking of Fire Lane”; since there are only two points of access to the complex.

27. “Entrance Sign B” may be used at each point of access to complex. Provide a complete no parking-fire lane stripping plan with no parking signage in accordance to Menlo Park Fire Protection District standard on subsequent submittal:

    a. Roadway width for project illustrated at 20 feet wide and shall require curb stripping with no parking signage as per Menlo Park Fire Protection District Standard.

    b. Required no parking signage installed at an approved location at entrances.

28. Building is illustrated on provided plans as a 29 feet 6-inch building height. The illustrated 20 foot wide driveway will meet Menlo Park Fire Protection District requirement for fire apparatus access.

29. Traffic Opticom Signal Preemption System required for all traffic intersections controlled with a traffic signal. An encroachment permit shall accompany these installations.

30. Applicant to provide fire flow information through a separate engineered plan showing how this is to be achieved. This document shall be submitted to Menlo Park Fire Protection District for review and approval prior to issuance of grading and building permits. CFC 2016, Sec. 507.5.1 Appendix B Section 105.2 and Table 105.1

31. A Public hydrant is required at driveway entrance on East Selby Lane. All hydrant(s) to comply to the following: (show on all subsequent submittals which shall include Civil Utility Sheets)

a. All fire hydrants shall be wet barrel standard steamer type with 1-4 1/2" (114.3 mm) and 2-2 1/2" (63.5 mm) outlets. Menlo Park Fire Protection District CFC Sec. 507.5.1 Appendix C

32. Fire hydrants and fire appliances (fire department connections and post indicator valves) shall be clearly accessible and free from obstruction. FDC shall be located next to driveway entrance fronting East Selby Lane.

33. For single story buildings or structures with an interior height of up to 18 feet as measured from the finished floor to the underside of ceiling, the minimum sprinkler design shall be 0.18 gpm over the most remote 3,000 sq. ft. area plus 500 gpm hose stream included at the base of the riser. For buildings or structures with an interior height of over 18 feet from finished floor to the underside of the ceiling, the minimum sprinkler design shall be 0.33 gpm over the most remote 3,000 sq. ft. area plus 500 gpm for hose streams included at the base of the riser. With written approval from the fire code official, schools, churches and similar occupancies which have few hazards and are unlikely to change may use lesser sprinkler design densities allowed by NFPA 13 and Chapter 9 of the Fire Code.

34. An approved Fire Sprinkler System shall be installed throughout structure. Fire sprinkler system shall be designed to provide 15gpm/ 1,500 sq. ft. of coverage area, plus hose stream allowance. Fire sprinkler system to comply with NFPA 13 2016 edition and Menlo Park Fire Protection District Standards. A separate plan review fee will be collected upon review of these plans:

    a. Each floor level shall have a dedicated sprinkler riser assembly installed enabling fire department personnel direct access. The buildings 1st, 2nd, and 3rd floors sprinkler riser assembly to be located in an approved room of closet.

35. An approved fire alarm system is required. A minimum of two sets of plans, specifications and other information pertinent to the system must be submitted to the Menlo Park Fire Protection District for review and approval prior to installation. A separate plan review fee will be collected upon review of these plans:

    a. Fire alarm systems shall be U.L. Certificated, Certificate of Completion and other documentation listed the National Fire Alarm Code shall be provided for all new fire alarm system installations.

36. The amount of demolition shall not exceed that which is shown on the approved plans. Any additional demolition beyond that which is shown, will require revised plans to be submitted for review and approval by the Building Inspection Section and the Menlo Park Fire Protection District.

37. Approved numbers or addresses shall be placed on all new and existing buildings in such a position as to be plainly visible and legible from the street or road fronting

the property. Said numbers shall contrast with their background. Individual suite numbers shall be permanently posted on the main entrance doors of tenant spaces. If rear outside doors to tenant spaces are installed, they shall include the installation of numerical address numbers corresponding to front addressing. Numbers on new occupancies shall comply with the following:

a. Structures up to 50 feet (15240 mm) in height shall have addresses with a min. 1-inch (25.4 mm) stroke wide by min. 8 inches (203.2 mm) high.

38. CFC Section 510, Emergency Responder Radio Coverage. When required by the fire code official, all new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems within Menlo Park Fire Protection District at the exterior of the building. This section shall not require improvements of the existing public safety communication systems.

39. Provide an emergency power disconnect (EPO) at the building main entrance actuated by a “Knox Key Switch”, location of the EPO to be positioned adjacent to the required Knox Box.

40. A minimum 2A 10BC rated fire extinguisher shall be located at or near exits and shall be placed so that the travel distance to a fire extinguisher shall not to exceed 75 feet. Verify with Fire Inspector at time of rough inspection to assist with placement of extinguisher(s).

41. Exit signs, emergency lighting, address posting, fire lane, marking, fire extinguishers and Knox Box location to be field verified by Fire Inspector.

42. Means of egress components to include exit pathway throughout use, exit stairwells, exit enclosure providing access to exit doors, door hardware, exit signs, exit illumination and emergency lighting shall comply to CFC/CBC Chapter Ten.

43. The single man door providing direct access to the Sprinkler Riser Assembly shall require signage on the door accessing riser stating- “Riser Room” or agreed upon language.

44. Approved plans and approval letter must be on site at the time of inspection.

45. Final acceptance of this project is subject to field inspection.

<u>Fair Oaks Sanitary District</u>

46. The applicant shall purchase an additional 3 sewer connections and obtain all appropriate permits for the installation of the connections. The fees for new sewer connections will be calculated based on the plans submitted prior to final approval of the building plans.

47. Each subdivided parcel must connect to the Sewer District main with an individual 4-inch sewer lateral.

48. The Sewer District will allow the proposed connections providing that all associated fees are paid. The Sewer District may require payment of additional sewer connection fees and sewage treatment capacity fees.

49. The applicant shall submit building plans to the Sewer District for review when the building permit application is submitted. The plans shall indicate the location of the existing and proposed sewer laterals to the Sewer District main.

California Water Service-Bear Gulch District

51. Any improvements to the water system will be at the owners expense including additional services or fire protection needs all storm and sewer lines must have separation from Water of 10 foot horizontal separation and 1 foot vertical separation below the Water main or service line, service lines which go thru one property to another property must have legal easements granted with documentation submitted to Cal Water before installation.

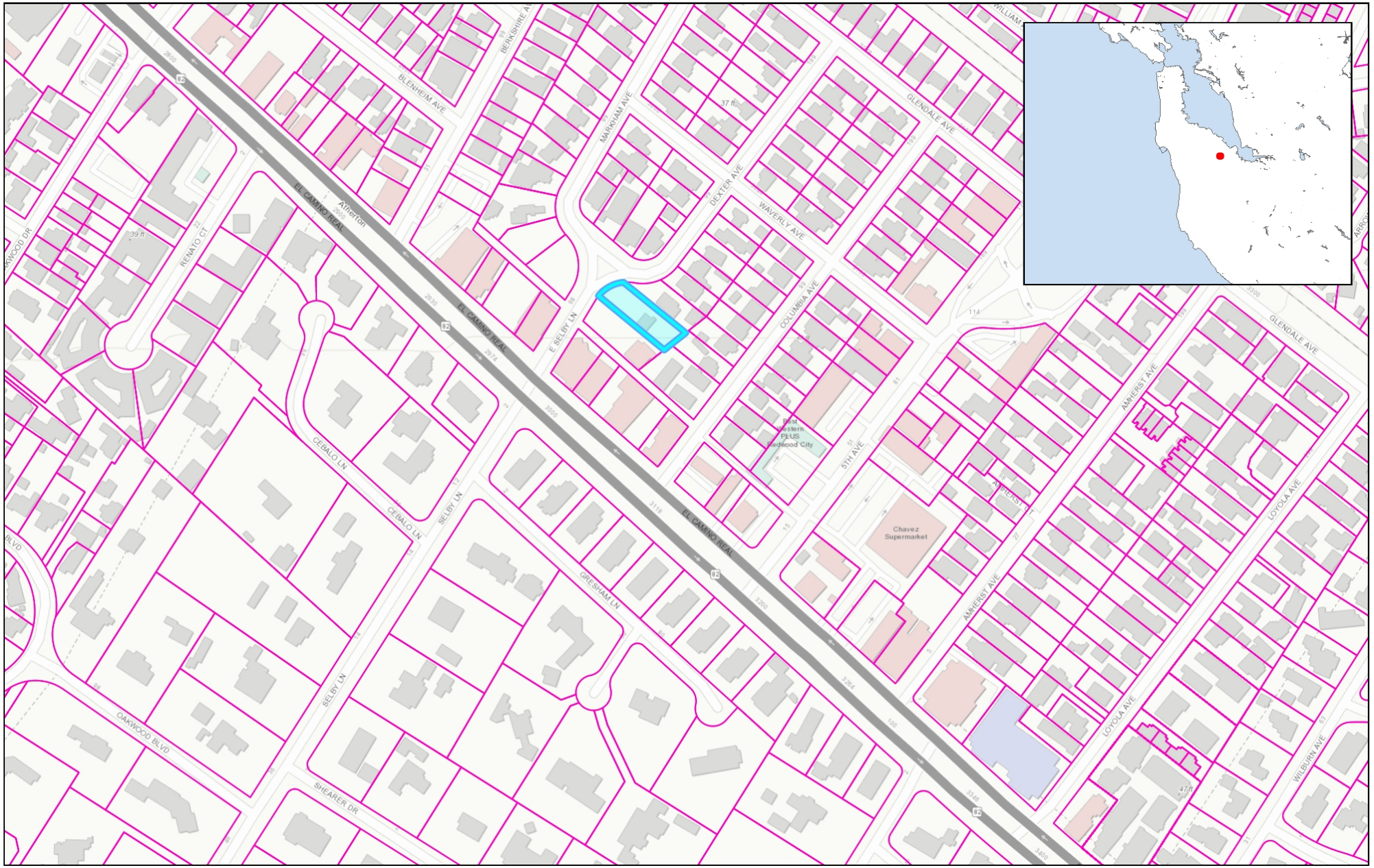
KAKEE0459_WCU.DOCX

County of San Mateo - Planning and Building Department

ATTACHMENT B

San Mateo County

County San Mateo, CA



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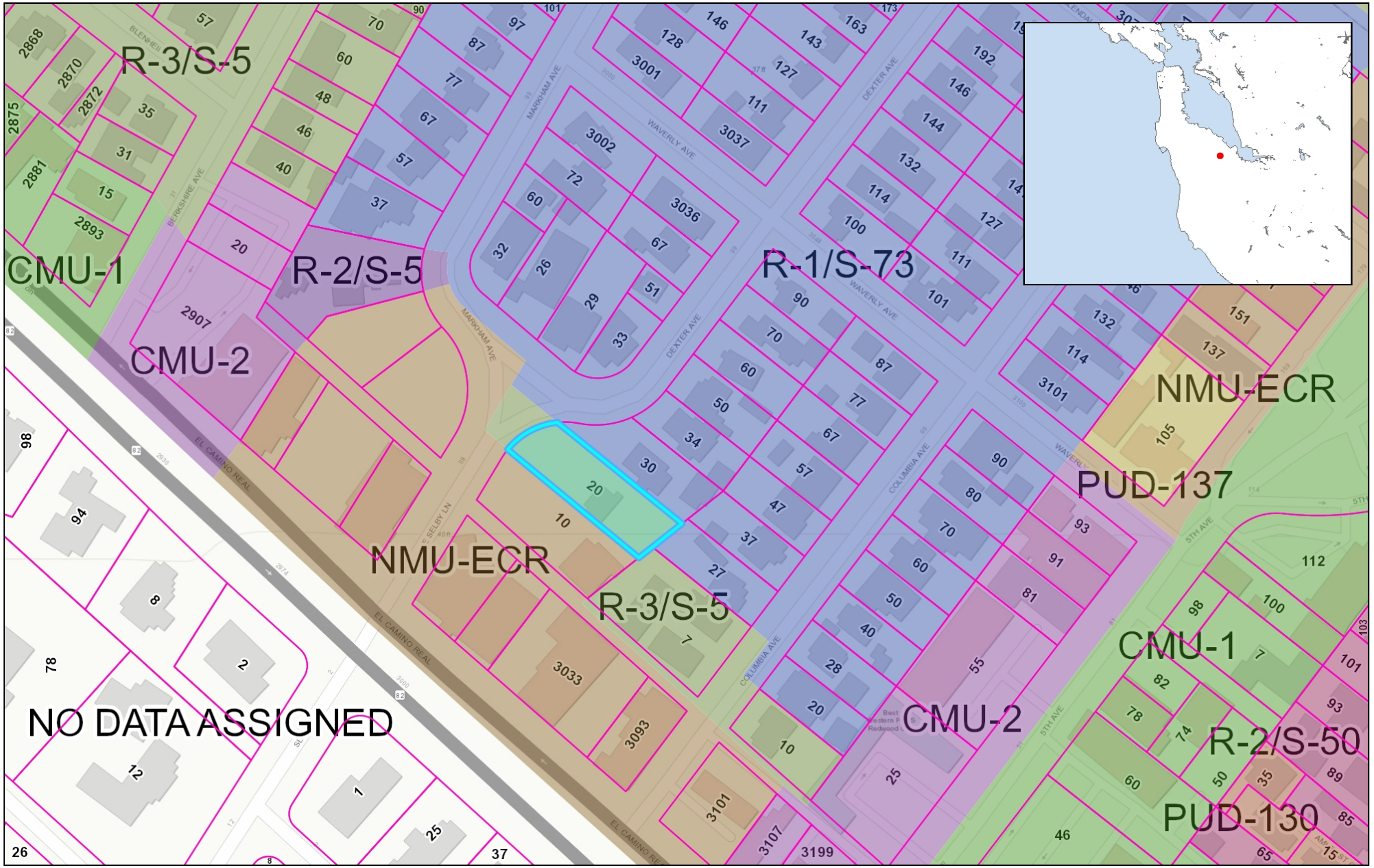
WGS_1984_Web_Mercator_Auxiliary_Sphere

1: 4,514

San Mateo County

County San Mateo, CA



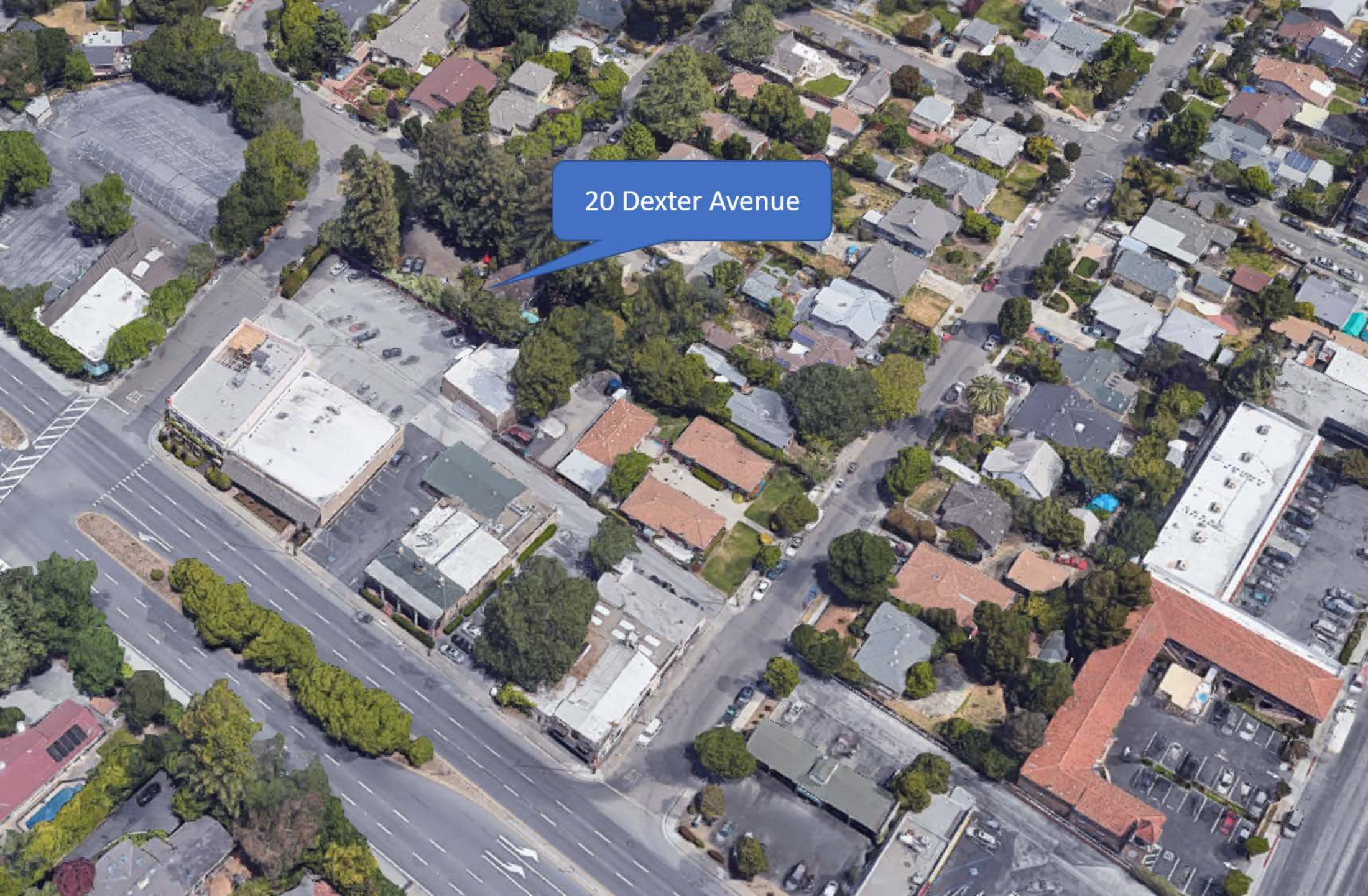
0.07 0 0.04 0.07 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

1: 2,257

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION


20 Dexter Avenue

County of San Mateo - Planning and Building Department

ATTACHMENT C

20 DEXTER AVENUE
TENTATIVE MAP
UNINCORPORATED SAN MATEO COUNTY, CA

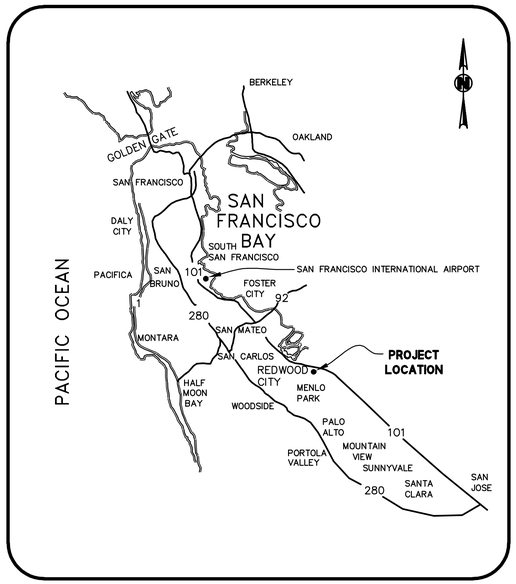
20 DEXTER AVENUE
TENTATIVE MAP LOT SUMMARY

RESIDENTIAL PARCELS

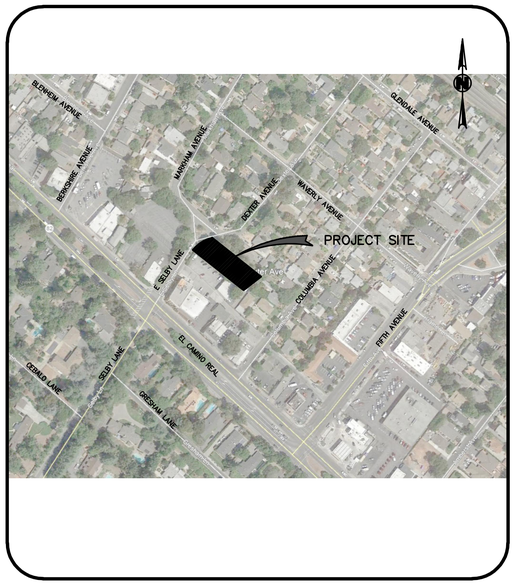
LOT/PARCEL NO.	NO. of LOTS	AREA ACRES	USE
1	1	0.03	LOT FOR SINGLE FAMILY TOWNHOME ATTACHED BUILDING
2	1	0.03	LOT FOR SINGLE FAMILY TOWNHOME ATTACHED BUILDING
3	1	0.03	LOT FOR SINGLE FAMILY TOWNHOME ATTACHED BUILDING
4	1	0.03	LOT FOR SINGLE FAMILY TOWNHOME ATTACHED BUILDING
"A"	1	0.15	COMMON AREA RESERVED FOR FUTURE DEDICATION TO HOME OWNERS ASSOCIATION
SUBTOTAL	**5**	**0.27**	
TOTAL NUMBER OF DWELLING UNITS			**4 TOTAL UNITS**

SYMBOL	DESCRIPTION
AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
AD	AREA DRAIN
APN	ASSESSORS PARCEL NUMBER
APPROX.	APPROXIMATE
ARV	AIR RELEASE VALVE
AVE	AVENUE
BLDG	BUILDING
BLVD	BOULEVARD
BM	BENCH MARK
BO	BLOWOFF
BW	BACK OF WALK, BOTTOM OF WALL
CB	CATCH BASIN
CC	CENTER TO CENTER or CENTER OF CURVE
CF	CUBIC FEET
C&G	CURB & GUTTER
CIP	CAST IRON PIPE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONST	CONSTRUCT
CR	CURB RETURN/RAMP
CT	COURT
CY	CUBIC YARD
DI	DUCTILE IRON
DIA	DIAMETER
DIAZ	DIAZ AVENUE
DIP	DUCTILE IRON PIPE
DR	DRIVE
DWY	DRIVEWAY
(E)	EXISTING
E	ELECTRICAL
EA	EACH
EL	ELEVATION
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
E.V.A.E.	EMERGENCY VEHICLE ACCESS EASEMENT
EX	EXISTING
F/C	FACE OF CURB
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE
FH	FIRE HYDRANT
FI	FIELD INLET
FL	FLOW LINE
FS	FINISHED SURFACE
FT	FEET
G	GAS
GALV	GALVANIZED
GB	GRADE BREAK
GND	GROUND
GR	GRADE
GV	GATE VALVE
HORIZ	HORIZONTAL
HP	HIGH POINT
HV	HIGH VOLTAGE
ID	INSIDE DIAMETER
IEE	INGRESS/EGRESS EASEMENT
IN	INCHES
INV	INVERT
JP	JOINT POLE
JT	JOINT TRENCH
L	LENGTH
LAT	LATERAL
LB	POUND(S)
LF	LINEAR FEET
LT	LEFT
MAX	MAXIMUM
MH	MANHOLE
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MON	MONUMENT
N	NORTH

SYMBOL	DESCRIPTION
NE	NORTHEAST
NO., #	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OH	OVERHEAD
PG&E	PACIFIC GAS AND ELECTRIC
P/L	PROPERTY LINE
PP	POWER POLE
PRC	POINT OF REVERSE CURVE
PRV	PRESSURE REDUCING VALVE
PT	POINT
PAE	PUBLIC ACCESS EASEMENT
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RT	RIGHT
R/W	RIGHT OF WAY
SD	STORM DRAIN
SDCO	STORM DRAIN CLEAN OUT
SDMH	STORM DRAIN MANHOLE
SF	SQUARE FEET
SHT	SHEET
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSE	SANITARY SEWER EASEMENT
SSMH	SANITARY SEWER MANHOLE
ST	STREET
STD	STANDARD
S/W	SIDEWALK
T	TELEPHONE
TC	TOP OF CURB
TEMP	TEMPORARY
TG	TOP OF GRATE
TYP	TYPICAL
UG	UNDER GROUND
VCP	VITRIFIED CLAY PIPE
W/	WITH
WM	WATER METER
WV	WATER VALVE
W	WATER



LOCATION MAP
N.T.S.



VICINITY MAP
N.T.S.

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
SANITARY SEWER LINE	SS	SS
ELECTRIC LINE	E	
GAS LINE	G	G
STORM DRAIN LINE	SD	
TELEPHONE LINE	T T	
WATER LINE	W	W
OVERHEAD LINE	OH	
CLEANOUT	○	CO●
MANHOLE	◯	
FIRE HYDRANT		
WATER VALVE	⋈	
WATER METER	▭	▭

811
Know what's **below.**
Call before you dig.

BENCHMARK:

THE ELEVATIONS SHOWN ON THIS SURVEY ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) ELEVATIONS BASED UPON GPS OBSERVATIONS OF BKF POINT NO. 1 PERFORMED BY BKF ON MAY 20, 2019. THE GPS OBSERVATIONS ARE THE RESULTS OF AVERAGED REDUNDANT MEASUREMENTS OF BKF POINT NO. 1 TAKE WITH GNSS EQUIPMENT UTILIZING THE CALIFORNIA SURVEY AND DRAFTING SUPPLY REAL-TIME KINEMATIC REAL-TIME NETWORK (CSDS-RTN), WHICH BROADCASTS REAL-TIME ELEVATIONS ON THE NAVD88 VERTICAL DATUM. PRIOR TO THE ACCEPTANCE OF THIS ELEVATION BY BKF, A PUBLISHED NATIONAL GEODETIC SURVEY (NGS) BENCHMARK OFF-SITE WAS OBSERVED, CHECKED, AND AGEED UPON TO STANDARD GNSS SURVEY TOLERANCES FOR A PROJECT OF THIS TYPE (0.05'±).

BKF POINT NO. 1 ELEVATION = 39.08'

BASIS OF BEARINGS:

THE BEARING OF NORTH 51°33'40" WEST OF WAVERLY AVENUE AS SHOWN UPON THAT CERTAIN RECORD SUBDIVISION MAP FILED IN VOLUME 13 OF RECORD SUBDIVISION MAPS AT PAGE 20 WAS TAKEN AS THE BASIS OF BEARINGS FOR THIS SURVEY.

RECORD REFERENCES:

(R1) RECORD SUBDIVISION MAP FILED JANUARY 20, 1926 IN BOOK 13 OF RSM MAPS AT PAGE 29, SAN MATEO COUNTY RECORDER.

UNAUTHORIZED CHANGES & USES:

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THESE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

PROJECT INFORMATION

PROPERTY DESCRIPTION:	APN 060-273-140 EXISTING LAND USE: TWO-STORY RESIDENTIAL BUILDING PROPOSED LAND USE: 4 TOWN HOMES AND COMMON AREA
OWNER/SUBDIVIDER:	6021 WEIYING LLC 20 DEXTER AVENUE REDWOOD CITY, CA 94063
ENGINEER:	BKF ENGINEERS 255 SHORELINE DRIVE, SUITE 200 REDWOOD CITY, CA 94065 (650)482-6300
ACREAGE: EXISTING	0.27 AC
PROPOSED	0.27 AC
ZONING:	R-3/S-5
STORM DRAIN:	SAN MATEO COUNTY (NONE NEAR SITE)
SEWAGE DISPOSAL:	SAN MATEO COUNTY
WATER SUPPLY:	CALIFORNIA WATER SERVICE
GAS AND ELECTRIC:	PG&E
TELEPHONE:	AT&T
CABLE:	COMCAST
FLOOD ZONE:	SITE CURRENTLY FALLS WITHIN AREAS OF MINIMAL FLOOD HAZARD IN ZONE X BASED ON FIRM MAP NUMBER 06081C0302F, DATED APRIL 5, 2019.

SHEET INDEX

GENERAL NOTES

1. EROSION CONTROL PLAN WILL CONFORM TO APPLICABLE CITY, STATE AND FEDERAL STANDARDS.

2. THE OWNER INTENDS TO FILE A FINAL MAP FOR A FIVE LOT SUBDIVISION FOR TOWN HOMES PURPOSES.

ENGINEER'S STATEMENT

THESE TENTATIVE MAPS HAVE BEEN PREPARED BY ME OR UNDER MY DIRECTION IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICE.

Tim Heffernan

TIMOTHY HEFFERNAN
PROJECT MANAGER
BKF ENGINEERS
P.E. #67089

REGISTERED PROFESSIONAL ENGINEER
TIMOTHY P. HEFFERNAN
No. 67089
Exp. 9/30/20
CIVIL
STATE OF CALIFORNIA

6/1/2020
DATE

BKF
ENGINEERS | SURVEYORS | PLANNERS
255 SHORELINE DR
SUITE 200
REDWOOD CITY, CA 94065
650-482-6300
650-482-6399 (FAX)

20 DEXTER AVENUE
TENTATIVE MAP
TITLE SHEET
SAN MATEO COUNTY
CALIFORNIA
REDWOOD CITY

No.	Revisions

Date: 6/1/20
Scale: N/A
Design: MP
Drawn: MP
Approved: TH
Job No: 20190603

Drawing Number:
T-1

DRAWING NAME: K:\2019\190603_20_Dexter Ave_RWC\ENG\PLANNING\SHEETS\Tentative Map\T-1.dwg (Layout)
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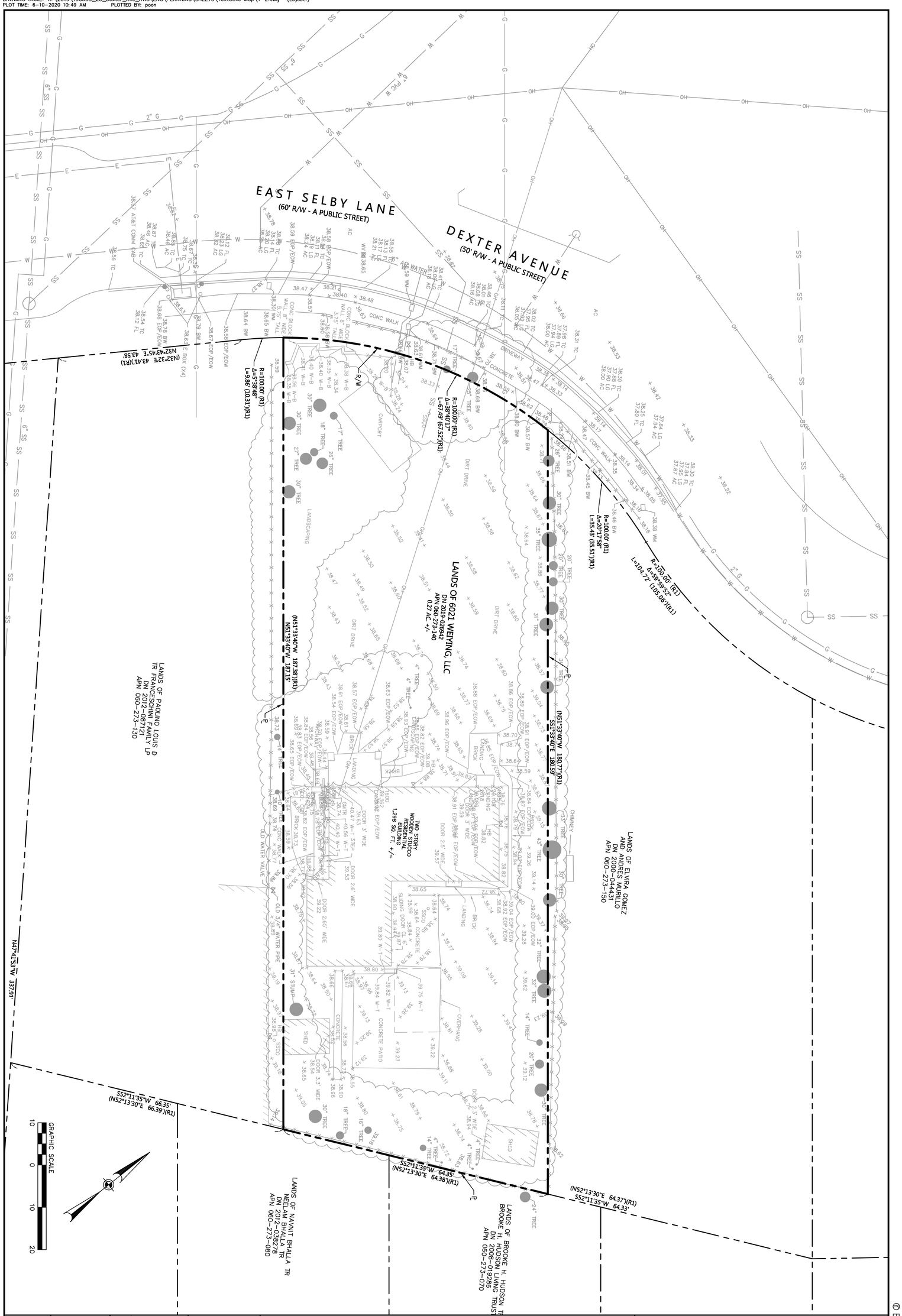
PLOT TIME: 6-10-2020 10:49 AM PLOTTED BY: poon



Drawing Number: T-2	Date: 6/1/20	No.	Revisions
	Scale: 1"=10'		
	Design: MP		
	Drawn: MP		
	Approved: TH		
	Job No: 20190603		

DATE SIGNED: 06/01/20

20 DEXTER AVENUE
TENTATIVE MAP
EXISTING SITE CONDITIONS

REDWOOD CITY SAN MATEO COUNTY CALIFORNIA

BKF ENGINEERS / SURVEYORS / PLANNERS
255 SHORELINE DR
SUITE 200
REDWOOD CITY, CA 94065
650-482-6300
650-482-6399 (FAX)

NOTES:

1. ALL EXISTING TREES TO REMAIN AND BE PROTECTED UNLESS OTHERWISE NOTED.
2. REFER TO SHEET T-6 FOR PROPOSED LOT LINE INFORMATION.

EARTHWORK QUANTITIES:

CUT:	230 CY
FILL:	0 CY
NET:	230 CY OFF-HAUL

EARTHWORK NOTES:

1. EARTHWORK NUMBERS ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR PERFORMING TAKEOFFS FOR THEIR OWN PURPOSES AS MEANS AND METHODS AND CONSTRUCTION TECHNIQUES MAY AFFECT EARTHWORK QUANTITIES.
2. EARTHWORK NUMBERS DO NOT INCLUDE TRENCH, FOUNDATION OR FOOTING SPOILS.
3. EARTHWORK NUMBERS DO NOT INCLUDE BULKING OR SHRINKAGE FACTORS.
4. EARTHWORK NUMBERS DO NOT INCLUDE MATERIALS FROM DEMOLITION OR IMPORTED FOR PROPOSED PAVING SECTIONS OR TOPSOIL.
   A. EARTHWORK NUMBERS ASSUME 6" SECTION OF EXISTING PAVING, STRIPPING, CLEARING AND GRUBBING WILL BE REMOVED.
   B. EARTHWORK NUMBERS ASSUME A 6" SECTION OF PAVING, TOPSOIL WILL BE IMPORTED.

DEXTER AVENUE (50' R/W - A PUBLIC STREET)

EAST SELBY LANE (60' R/W - A PUBLIC STREET)

FF 39.93 | GAR 39.6 | FF 39.93 | GAR 39.6 | FF 39.93 | GAR 39.6 | FF 39.93 | GAR 39.6

(P) LOT LINE

20.00 FRONT SETBACK

20.00 REAR SETBACK

5.00 SIDE SETBACK

5.00 SIDE SETBACK

20' CONC DWY

20' CONC DWY

20' PAVER DWY

5.00 SIDE SETBACK

CHIMNEY

JOINT TRENCH

BUILDING OVERHANG

26 LF 15" PVC SD STORAGEG PIPE

140 LF 15" PVC SD STORAGEG PIPE

DI W/ STEEL PLATE RTG

DI W/ FLOW RESTRICTOR RIM 38.33

4-3" CURB DRAIN

1" W SERVICE

4" SS SERVICE

CONNECT TO (E) SS LATERAL

3" CURB DRAIN

4" PVC SD

4" PVC SS

4" DS STUB

AD RIM 38.50

DI RIM 38.34

REMOVE TREE (PER ARBORIST REPORT)

OLD WATER VALVE

GRAPHIC SCALE

10 0 10 20

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255 SHORELINE DR
SUITE 200
REDWOOD CITY, CA 94065
650-482-6300
650-482-6399 (FAX)

20 DEXTER AVENUE
TENTATIVE MAP
SITE PLAN

SAN MATEO COUNTY CALIFORNIA

REDWOOD CITY

DATE SIGNED 06/01/20

No.	Revisions

Date: 6/1/20
Scale: 1"=10'
Design: MP
Drawn: MP
Approved: TH
Job No: 20190603

Drawing Number:

T-3

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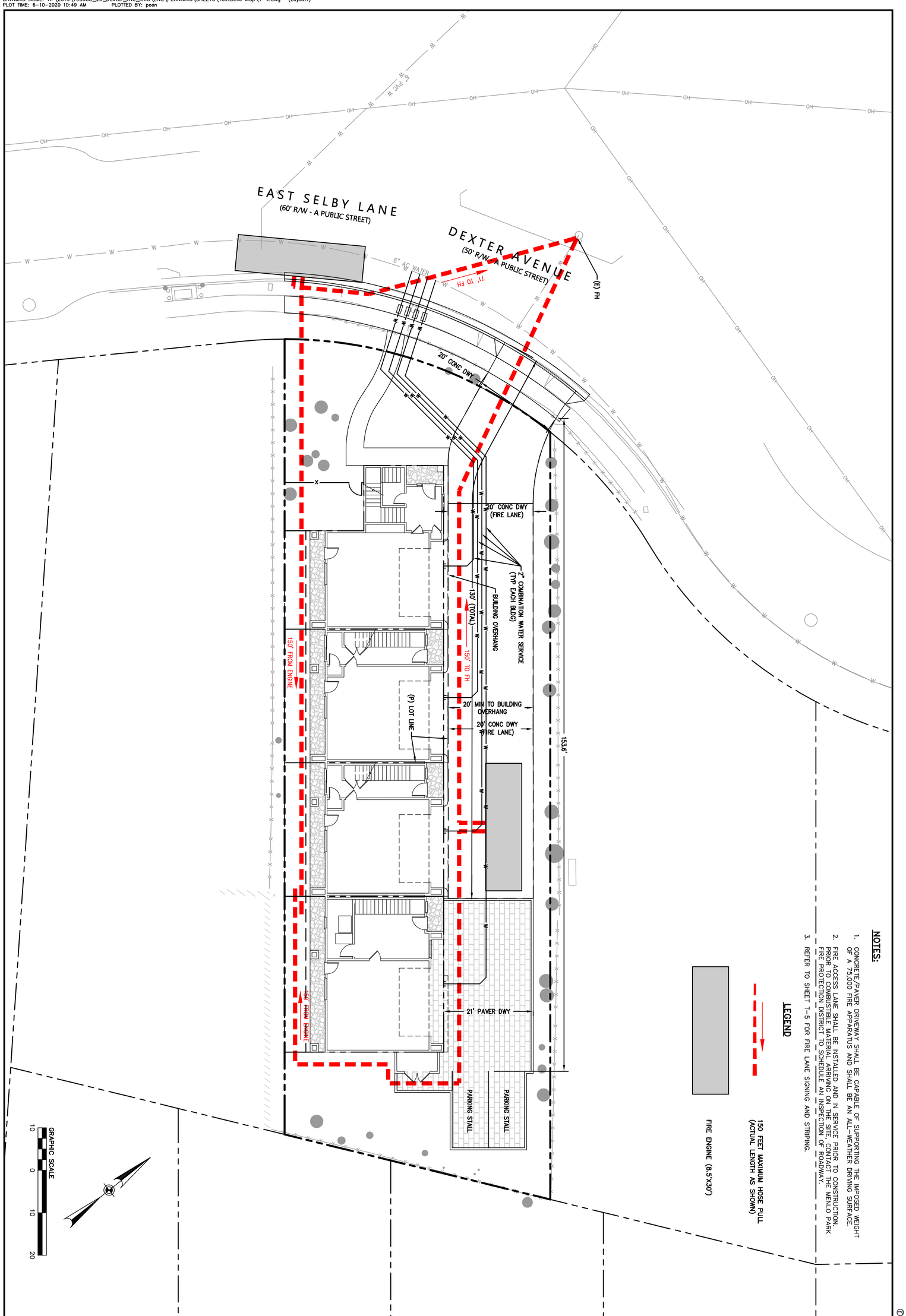

NOTES:

1. CONCRETE/PAVER DRIVEWAY SHALL BE CAPABLE OF SUPPORTING THE IMPOSED WEIGHT OF A 75,000 FIRE APPARATUS AND SHALL BE AN ALL-WEATHER DRIVING SURFACE.
2. FIRE ACCESS LANE SHALL BE INSTALLED AND IN SERVICE PRIOR TO CONSTRUCTION. PRIOR TO COMBUSTIBLE MATERIAL ARRIVING ON THE SITE, CONTACT THE MENLO PARK FIRE PROTECTION DISTRICT TO SCHEDULE AN INSPECTION OF ROADWAY.
3. REFER TO SHEET T-5 FOR FIRE LANE SIGNING AND STRIPING.

LEGEND

FIRE ENGINE (8.5'X30')

150 FEET MAXIMUM HOSE PULL (ACTUAL LENGTH AS SHOWN)

Drawing Number: T-4	Date: 6/1/20	No.	Revisions
	Scale: 1"=10'		
	Design: MP		
	Drawn: MP		
	Approved: TH		
	Job No: 20190603		

DATE SIGNED 06/01/20

20 DEXTER AVENUE
TENTATIVE MAP
FIRE ACCESS PLAN

REDWOOD CITY SAN MATEO COUNTY CALIFORNIA

BKF ENGINEERS / SURVEYORS / PLANNERS
255 SHORELINE DR
SUITE 200
REDWOOD CITY, CA 94065
650-482-6300
650-482-6399 (FAX)

DRAWING NAME: K:\2019\190603_20_Dexter_Ave_RWC\ENG\PLANNING\SHEETS\Tentative Map\T-5.dwg (Layout1)
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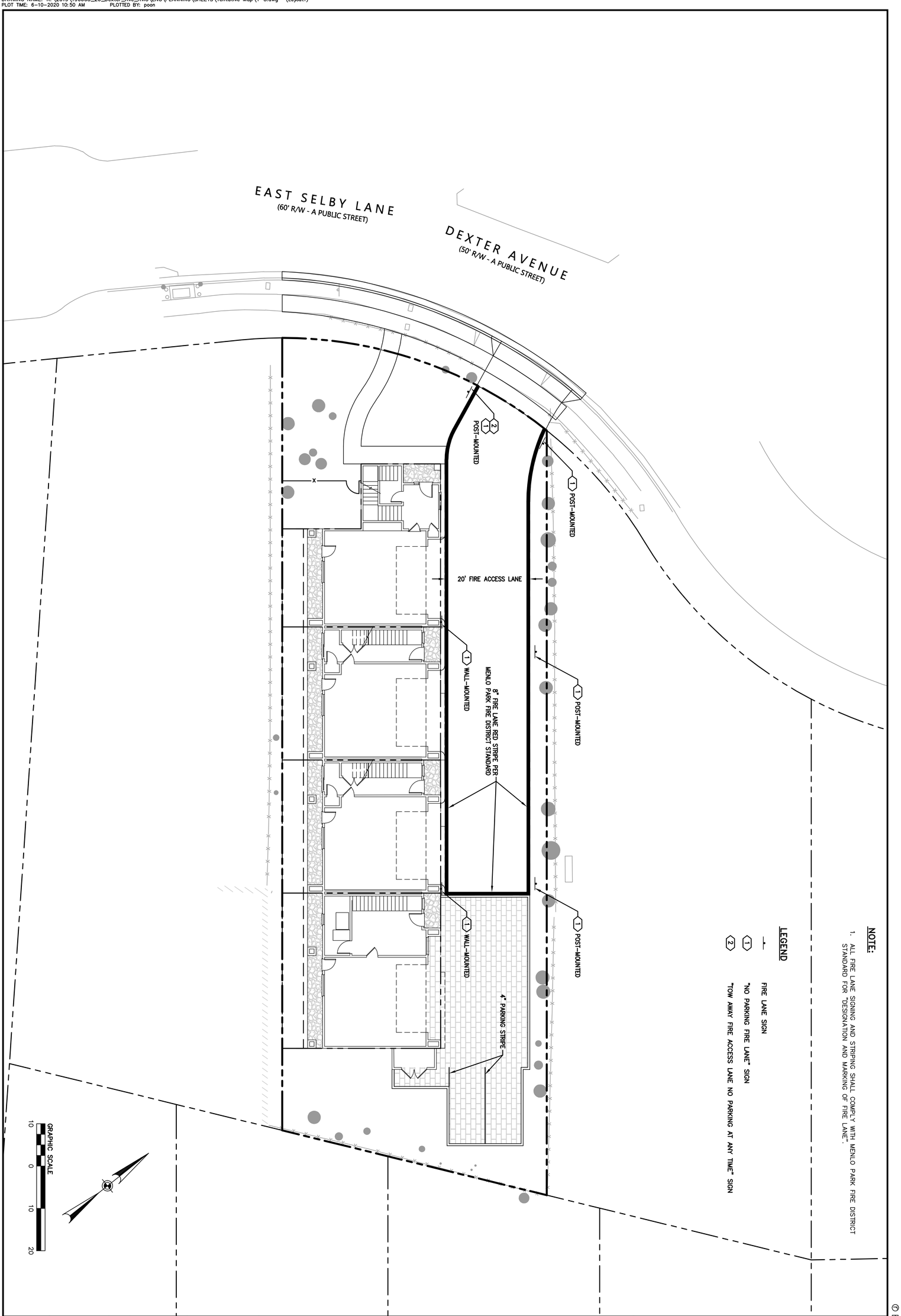

NOTE:

1. ALL FIRE LANE SIGNING AND STRIPING SHALL COMPLY WITH MENLO PARK FIRE DISTRICT STANDARD FOR "DESIGNATION AND MARKING OF FIRE LANE".

LEGEND

FIRE LANE SIGN

1 "NO PARKING FIRE LANE" SIGN

2 "TOW AWAY FIRE ACCESS LANE NO PARKING AT ANY TIME" SIGN

Drawing Number: T-5	Date: 6/1/20	No.	Revisions
	Scale: 1"=10'		
	Design: MP		
	Drawn: MP		
	Approved: TH		
	Job No: 20190603		

DATE SIGNED 06/01/20

20 DEXTER AVENUE
TENTATIVE MAP
SIGNING AND STRIPING PLAN

REDWOOD CITY SAN MATEO COUNTY CALIFORNIA

BKF
ENGINEERS / SURVEYORS / PLANNERS
255 SHORELINE DR
SUITE 200
REDWOOD CITY, CA 94065
650-482-6300
650-482-6399 (FAX)

RECORD REFERENCE:

(R1) RECORD SUBDIVISION MAP FIELD JANUARY 20, 1926 IN BOOK 13 OF RSM MAPS AT PAGE 29, SAN MATEO COUNTY RECORDER.

NOTE:

EMERGENCY VEHICLE ACCESS EASEMENT (E.V.A.E.) SHALL BE PUBLICLY RECORDED WITH THE COUNTY OF SAN MATEO ACCESSORS OFFICE.

DEXTER AVENUE
(50' R/W - A PUBLIC STREET)

EAST SELBY LANE
(60' R/W - A PUBLIC STREET)

180.59'
S51°33'40"E

20' E.V.A.E.

PARCEL 'A'
(COMMON AREA)
6,544 SF±

BUILDING OVERHANG

R=100.00'
Δ=38°40'17"
L=67.49'

18.77'
N38°25'53"E

15.33'
S51°34'07"E

18.64'
N38°25'53"E

38.50'
S51°34'07"E

31.42'
S51°34'07"E

31.42'
S51°34'07"E

36.67'
S51°34'07"E

LOT 1
1,155 SF±

LOT 2
1,175 SF±

LOT 3
1,175 SF±

LOT 4
1,372 SF±

37.42'
N38°25'53"E

37.42'
N38°25'53"E

37.42'
N38°25'53"E

41.43'
N38°25'53"E

84.35'
N52°11'35"E

45.10'
S51°33'40"E

23.17'
S51°33'40"E

31.42'
S51°33'40"E

31.42'
S51°33'40"E

36.67'
S51°33'40"E

19.38'
S51°33'40"E

187.51'
S51°33'40"E

5' DRAINAGE EASEMENT

GRAPHIC SCALE
10 0 10 20

BKF
ENGINEERS | SURVEYORS | PLANNERS
255 SHORELINE DR
SUITE 200
REDWOOD CITY, CA 94065
650-482-6300
650-482-6399 (FAX)

20 DEXTER AVENUE
TENTATIVE MAP
PROPOSED MAPPING INFORMATION

REDWOOD CITY SAN MATEO COUNTY CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER TIMOTHY P. HEFFERNAN No. 47085 Exp. 9/30/20 CIVIL STATE OF CALIFORNIA

DATE SIGNED 06/01/20

No.	Revisions

Date: 6/1/20
Scale: 1"=10'
Design: MP
Drawn: MP
Approved: TH
Job No: 20190603

Drawing Number:
T-6

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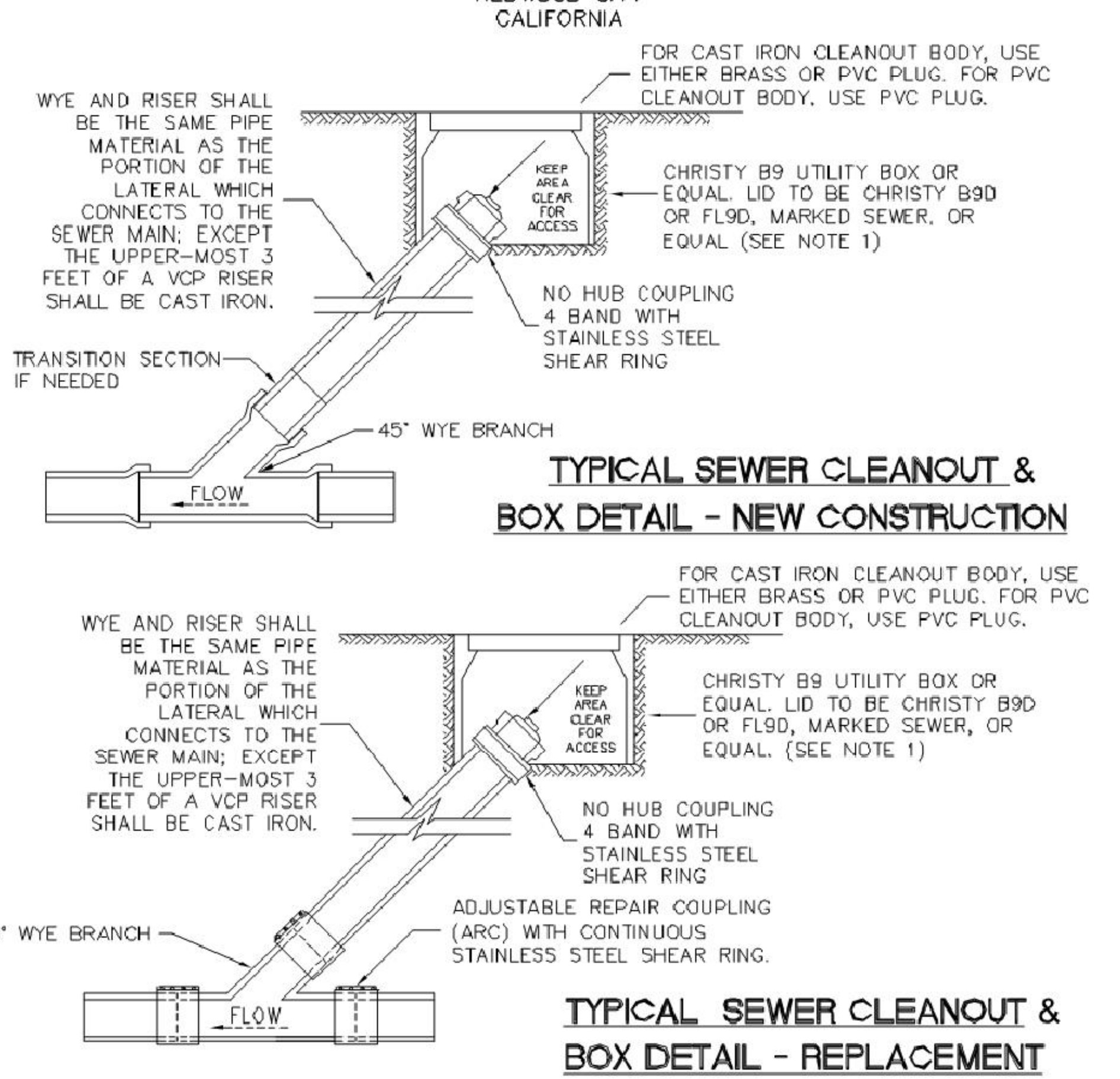
PLOT TIME: 6/1/2020 10:39 AM PLOTTED BY: pmm

SAN MATEO COUNTY DEPARTMENT OF PUBLIC WORKS
REDWOOD CITY CALIFORNIA

DRAWN BY: N.M. CHECK BY: A.M.S. APPROVED BY: N.R.C.
SCALE: NONE DATE: 8/05 REVISED:



TYPICAL SEWER CLEANOUT & BOX DETAIL - NEW CONSTRUCTION

TYPICAL SEWER CLEANOUT & BOX DETAIL - REPLACEMENT

NOTES:

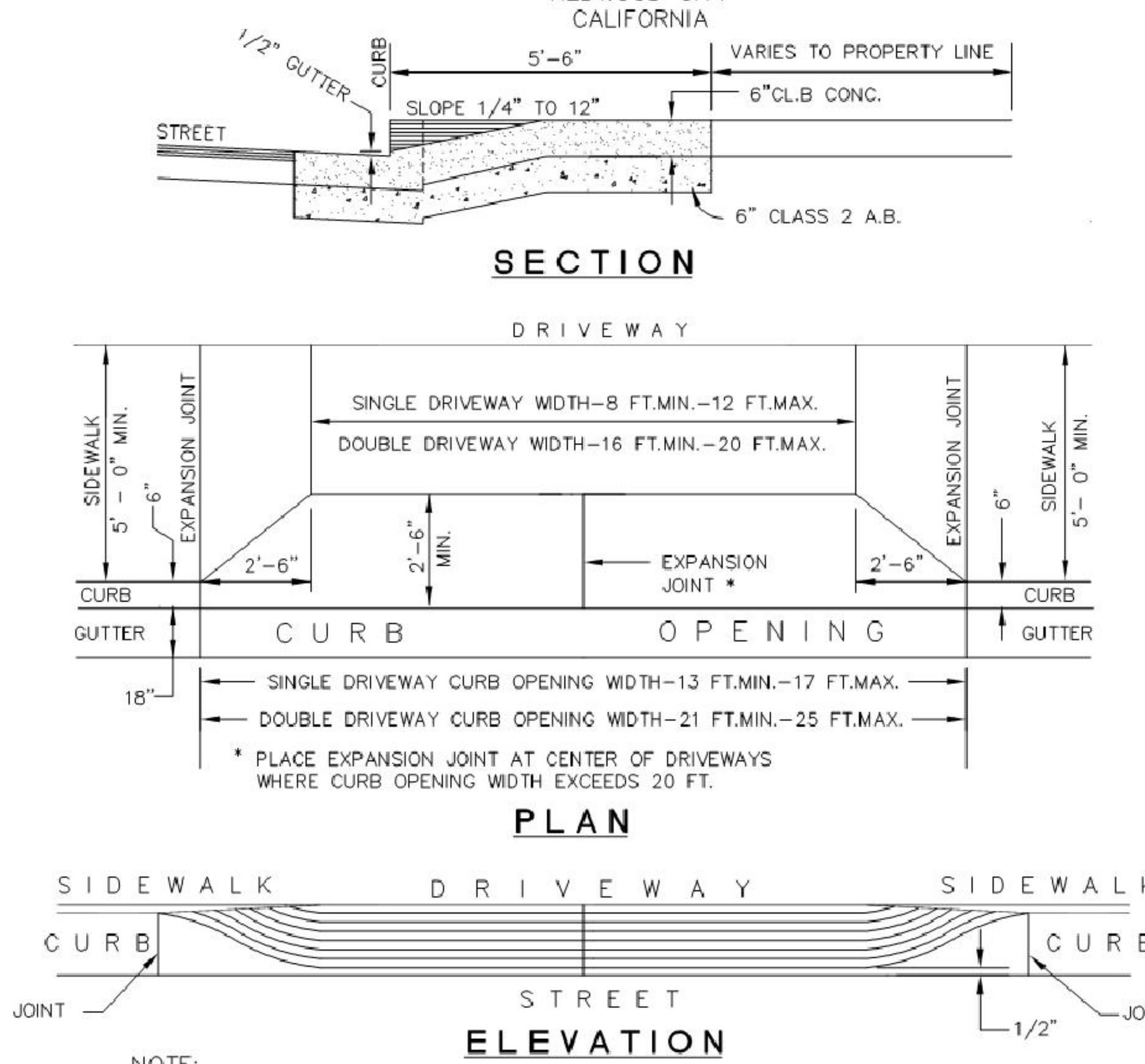
1. WHEN BOX IS SUBJECT TO TRAFFIC LOADING, PROVIDE CAST IRON LID.
2. BOX TO BE PLACED SUCH THAT CLEANOUT CAP CAN BE EASILY REMOVED. SEE ILLUSTRATION.
3. PROPERTY OWNER IS RESPONSIBLE FOR MAINTAINING LATERAL FROM THE PROPERTY STRUCTURE TO DISTRICT MAIN. DISTRICT PROVIDES COURTESY SERVICE FROM DISTRICT STANDARD PROPERTY LINE CLEANOUT TO THE MAIN.
4. SDR-26 WYE, RISER, CLEANOUT BODY AND CAP CAN BE USED ONLY WHEN LATERAL FROM PROPERTY LINE TO MAIN LINE IS REPLACED WITH SDR-26.
5. WHEN ENTIRE LATERAL IS REPLACED, LATERAL FROM PROPERTY LINE CLEANOUT TO MAIN LINE SHALL HAVE A 14-1-UF GUAGE MINIMUM SINGLE CONDUCTOR TRACER WIRE TAPED TO THE ENTIRE LENGTH OF THE PIPE.

CONSTRUCTION OF A STANDARD CLEANOUT REQUIRES MULTIPLE INSPECTIONS BY DISTRICT PERSONEL:
1. FIRST INSPECTION – TO INSPECT WYE AND RISER, WYE AND RISER MUST BE EXPOSED.
2. SECOND INSPECTION – TO INSPECT PLACEMENT OF BOX, LID AND LOCATION OF CLEANOUT WITHIN BOX .

C-3

SAN MATEO COUNTY DEPARTMENT OF PUBLIC WORKS
REDWOOD CITY CALIFORNIA

DRAWN BY: D.P. CHECK BY: J.A.L. APPROVED BY: N.R.C.
SCALE: NONE DATE: 6/95 REVISED: 4/97



NOTE:

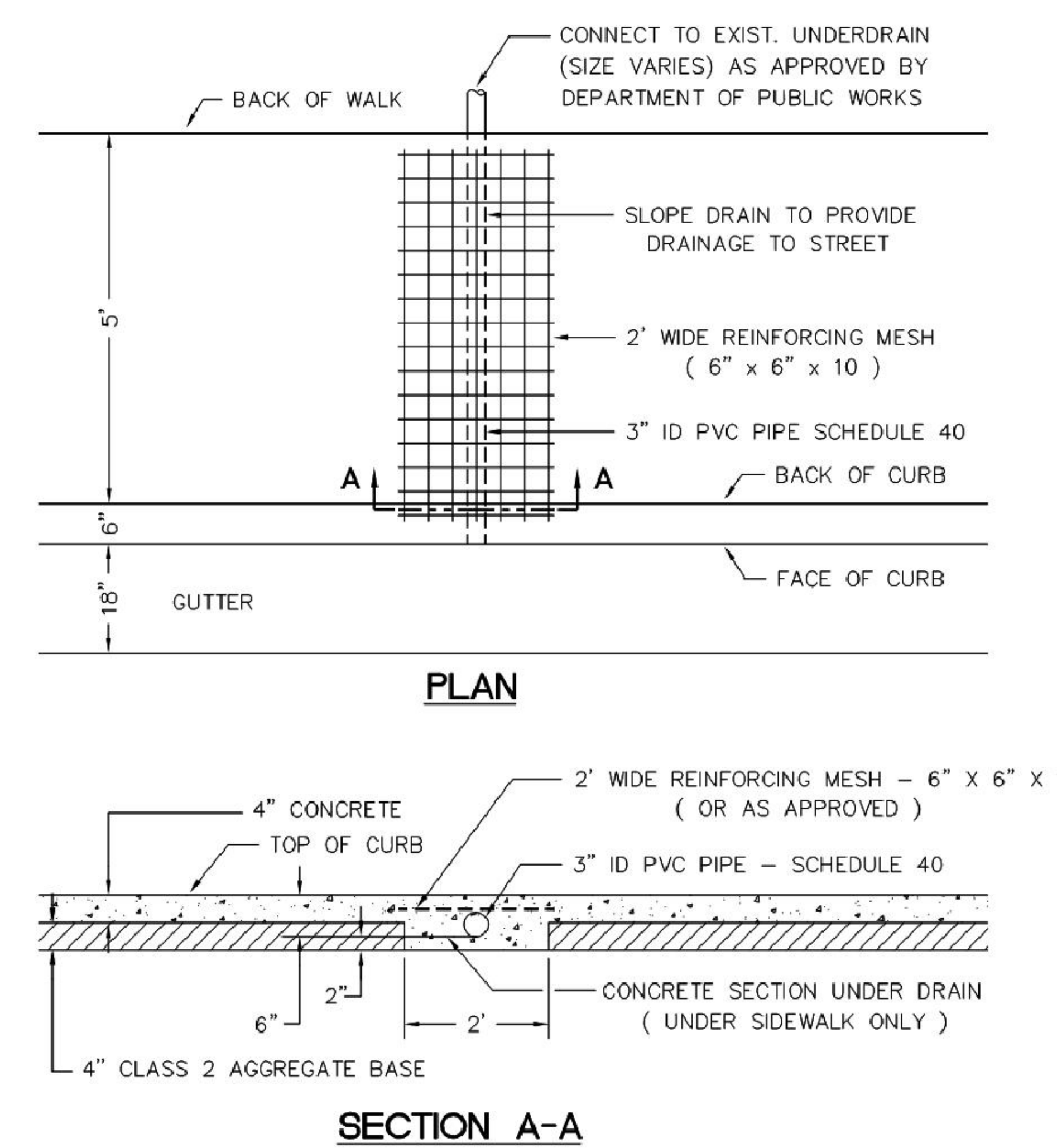
WHERE POSSIBLE, 22 FT. DISTANCES OR MULTIPLES OF 22 FT. DISTANCES SHOULD BE OBTAINED BETWEEN CURB OPENINGS. CONSTRUCT MONOLITHIC CURB, GUTTER, DRIVEWAY AND APRON. WHERE DRIVEWAYS OF SEPARATE RESIDENTIAL DWELLINGS ARE CONSTRUCTED ADJACENT TO ONE ANOTHER, DOUBLE THE DIMENSIONS SHOWN ABOVE. USE NO. 4 REINFORCING BAR DOWELS AS SHOWN ON STANDARD CURB, GUTTER AND SIDEWALK DETAIL.

STANDARD STRUCTURES DRIVEWAY WIDTHS AND CURB OPENINGS FOR SINGLE FAMILY RESIDENTIAL DWELLINGS

D-1

SAN MATEO COUNTY DEPARTMENT OF PUBLIC WORKS
REDWOOD CITY CALIFORNIA

DRAWN BY: M.L. CHECK BY: J.A.L. APPROVED BY: N.C.R.
SCALE: NONE DATE: 6/95 REVISED: 4/97

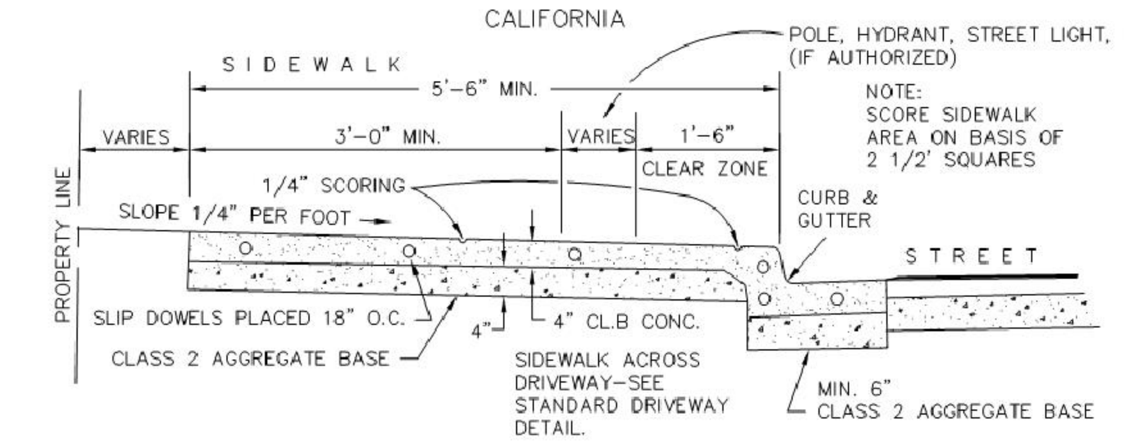


DRAINAGE UNDER SIDEWALK

D-6

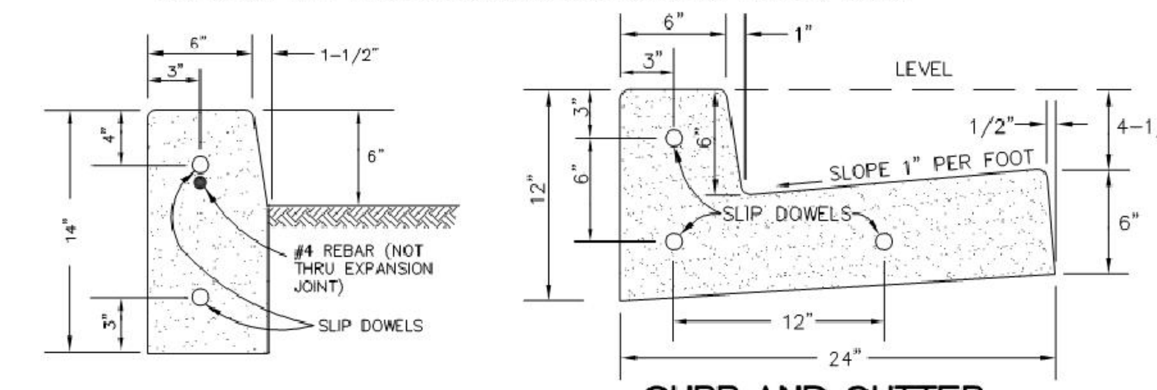
SAN MATEO COUNTY DEPARTMENT OF PUBLIC WORKS
REDWOOD CITY CALIFORNIA

DRAWN BY: D.P. CHECK BY: J.A.L. APPROVED BY: N.R.C.
SCALE: NONE DATE: 6/95 REVISED: 4/97



TYPICAL SECTION URBAN CURB, GUTTER AND SIDEWALK

NOTE: OBSTRUCTIONS SUCH AS POLES, HYDRANTS, STREET SIGNS, UTILITY BOXES, STREET LIGHTS, ETC. SHALL BE LOCATED BEHIND THE SIDEWALK, UNLESS OTHERWISE SPECIFICALLY AUTHORIZED BY THE DIRECTOR OF PUBLIC WORKS. A CLEAR ZONE ALONG THE CURB AND SIDEWALK 18 INCHES IN WIDTH (MEASURED FROM THE FACE OF THE CURB) SHALL BE KEPT CLEAR AND OPEN FROM ALL OBSTRUCTIONS. IN ADDITION, AN AREA 3 FEET IN WIDTH ALONG THE SIDEWALK, EXCLUSIVE OF THE CURB WIDTH, SHALL BE KEPT CLEAR AND OPEN FROM ALL OBSTRUCTIONS IN COMPLIANCE WITH THE STATE BUILDING CODE (PART 2, TITLE 24, C.A.C.).



A1-6 CURB

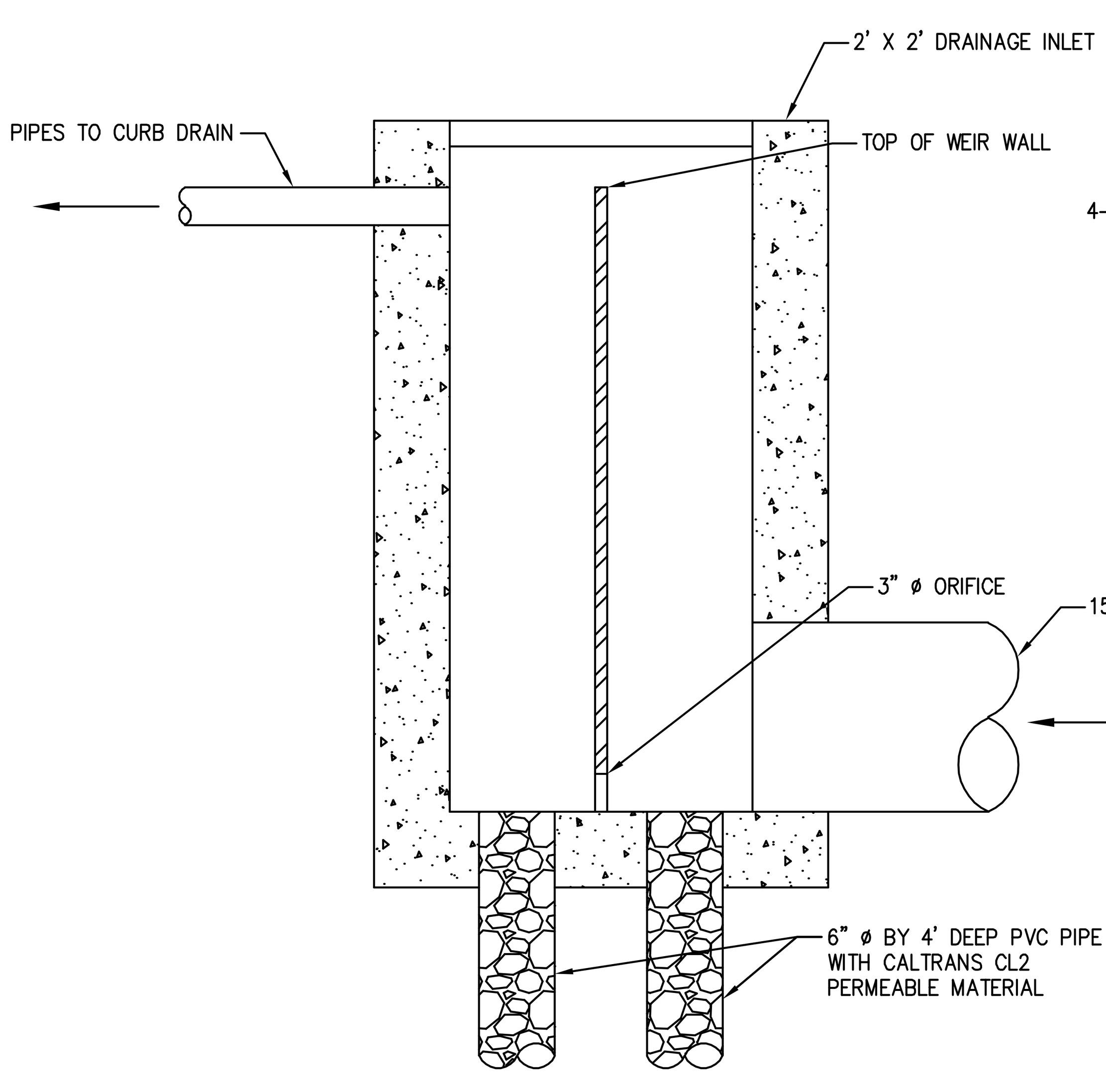
CURB AND GUTTER

TYPICAL SECTIONS

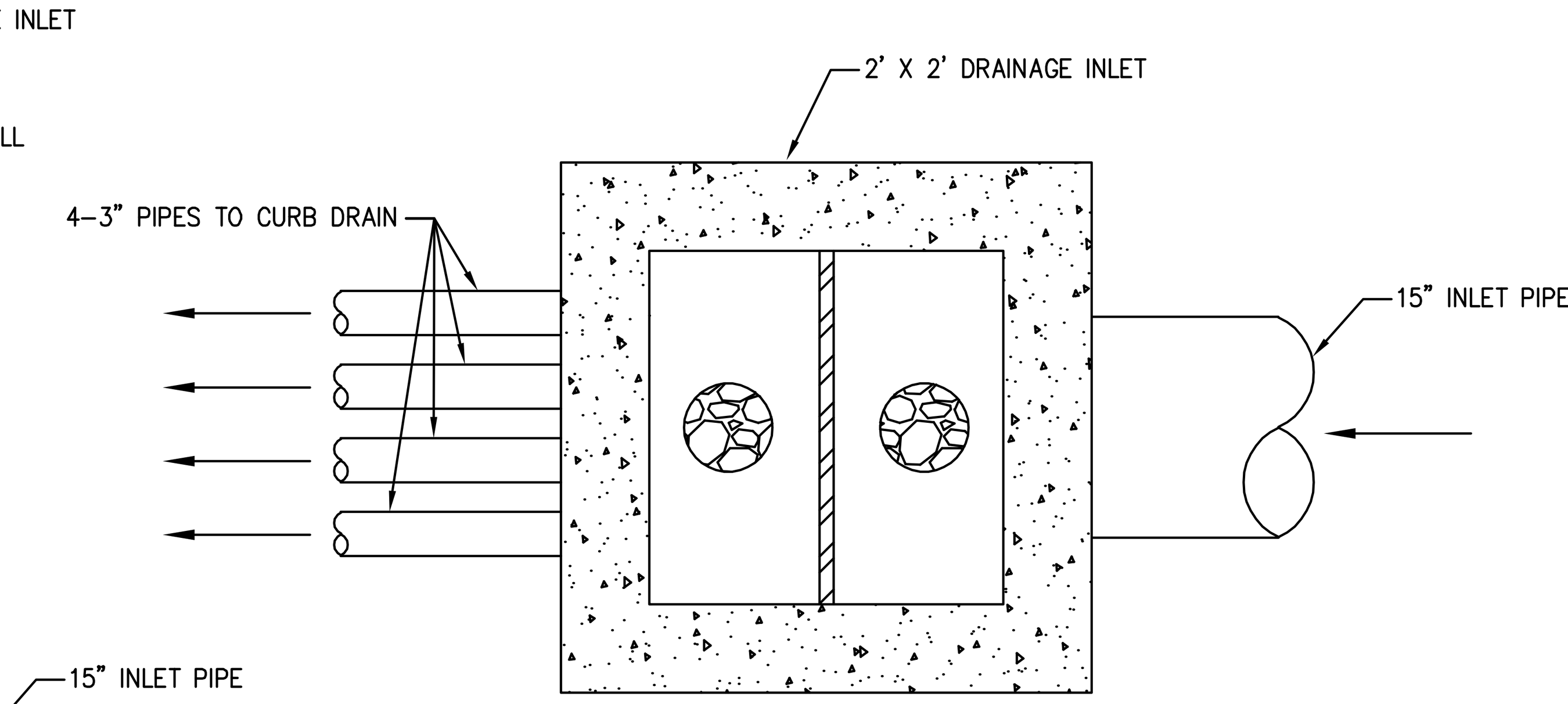
NOTES:

1. ALL CONCRETE TO BE CLASS B CONCRETE.
2. MINIMUM SIDEWALK THICKNESS = 4 INCHES PCC.
3. PLACE 1/2" DIAMETER X 18" LONG DOWELS AT EXPANSION JOINTS AS SHOWN.
4. PLACE 1/2" THICK EXPANSION JOINTS FULL WIDTH 20' ON CENTER.
5. CONSTRUCT MONOLITHIC CURB, GUTTER AND SIDEWALK UNLESS OTHERWISE SPECIFICALLY AUTHORIZED BY THE DIRECTOR OF PUBLIC WORKS.
6. SUB-BASE MATERIALS WITHIN 30" OF SUBGRADE SHALL BE COMPACTED TO 95%.

D-3



SECTION



PLAN

1 – **DRAINAGE INLET W/ FLOW RESTRICTOR**

N.T.S.

255 SHORELINE DR
SUITE 200
REDWOOD CITY, CA 94065
650-482-6300
650-482-6399 (FAX)

BKF ENGINEERS / SURVEYORS / PLANNERS

CALIFORNIA

20 DEXTER AVENUE
TENTATIVE MAP
CONSTRUCTION DETAILS
SAN MATEO COUNTY
REDWOOD CITY

DATE SIGNED 06/01/20

No.	Revisions

Date: 6/1/20
Scale: NTS
Design: MP
Drawn: MP
Approved: TH
Job No: 20190603

Drawing Number:
T-7

DRAWING NAME: K:\2019\190603_20_Dexter_Ave_RWC\ENG\PLANNING\SHEETS\Tentative Map\T-7.dwg (Layout1)
PLOT TIME: 6-10-2020 11:03 AM PLOTTED BY: poon

PROJECT TEAM

OWNER:
6021 WEIYING LLC
20 DEXTER AVENUE
REDWOOD CITY, CA 94063
(510) 996-2941
CONTACT: YING WANG

TITLE 24:
TO BE DETERMINED

ARCHITECT: (PLAN PREPARER)
DL ARCHITECTURE & PLANNING
616 RAMONA ST. STE. 21
PALO ALTO, CA 94301
(650) 321-2808
CONTACT: ERIC KENG

LANDSCAPE ARCHITECT
GREGORY LEWIS LANDSCAPE ARCHITECT
736 PARK WAY,
SANTA CRUZ, CA 95065
(831) 359-0960

STRUCTURAL ENGINEER:
TO BE DETERMINED

LAND SURVEYOR/CIVIL ENGINEER:
BKF ENGINEERS/SURVEYORS/ PLANNERS
255 SHORELINE DR.
REDWOOD CITY, CA 94065
(650) 482-6300
CONTACT: TIMOTHY HEFFERNAN

SCOPE OF WORKS

DEMOLISH EXISTING 1 STORY RESIDENCE AND DETACHED GARAGE, BASE ON R3/S5 ZONING PERMITTED USE OF MULTIPLE-FAMILY DWELLINGS AND S-5 WITH LOT WITH WIDER THAN 50FT. AND LOT SIZE LARGER THAN 5,000 SQ.FT. TO BUILD A NEW 4 DWELLING-UNIT BUILDING (LOT SIZE/2,500 SQ.FT. = ALLOWABLE UNIT: 11,744 /2,500 = 4.69) WITH 2 COVERED PARKING SPACES FOR EACH UNIT THROUGH AIR SPACE SUBDIVISION. THE NEW DEVELOPMENT WILL ALSO PROVIDE COMMON OPEN SPACE AND 2 PUBLIC PARKING SPACES FOR COMMUNITY ACTIVITIES.

SHEET INDEX

PROJECT DATA

A.	APN:	060-273-140
B.	ZONING:	R-3/S-5
C.	OCCUPANCY:	R-2
D.	SITE AREA:	11,744 SQ.FT. (0.27 AC)
E.	SITE DENSITY:	2,500/DU = 4 DU/LOT
F.	TOTAL STORIES:	3
G.	PARKING SPACES:	8 COVERED, (2 GUEST PARKING)
H.	FIRE SPRINKLER:	YES
J.	SETBACK:	SEE SITE PLAN
K.	PRIVATE YARD	300-600 SQ.FT/DU
L.	PUBLIC OPEN SPACE	1,000 SQ.FT.
M.	BUILDING PAD	AVERAGE 1,000 SQ.FT.
N.	DRIVEWAY	20 FT (24.0 FT IN FRONT OF GARAGE)
O.	FLOOR AREA	

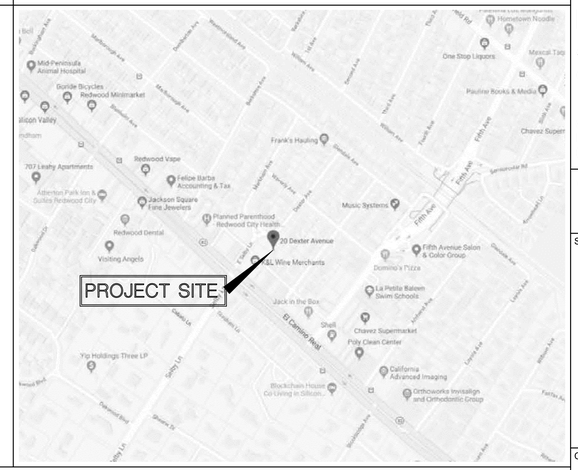
	1st FLOOR	2nd FLOOR	3rd FLOOR	TOTAL	GARAGE
UNIT "A"	245 SQ.FT.	956 SQ.FT.	946 SQ.FT.	2,147 SQ.FT.	587 SQ.FT.
UNIT "B"	225 SQ.FT.	1,003 SQ.FT.	984 SQ.FT.	2,212 SQ.FT.	556 SQ.FT.
UNIT "C"	225 SQ.FT.	1,003 SQ.FT.	984 SQ.FT.	2,212 SQ.FT.	556 SQ.FT.
UNIT "D"	333 SQ.FT.	1,222 SQ.FT.	1,107 SQ.FT.	2,662 SQ.FT.	570 SQ.FT.

FAR: = 11,502 / 11,744 = 0.98

LOT COVERAGE: = 4,112 / 11,744 = 35.0%

TOTAL LIVING SPACE: 9,233 SQ.FT.

VICINITY MAP



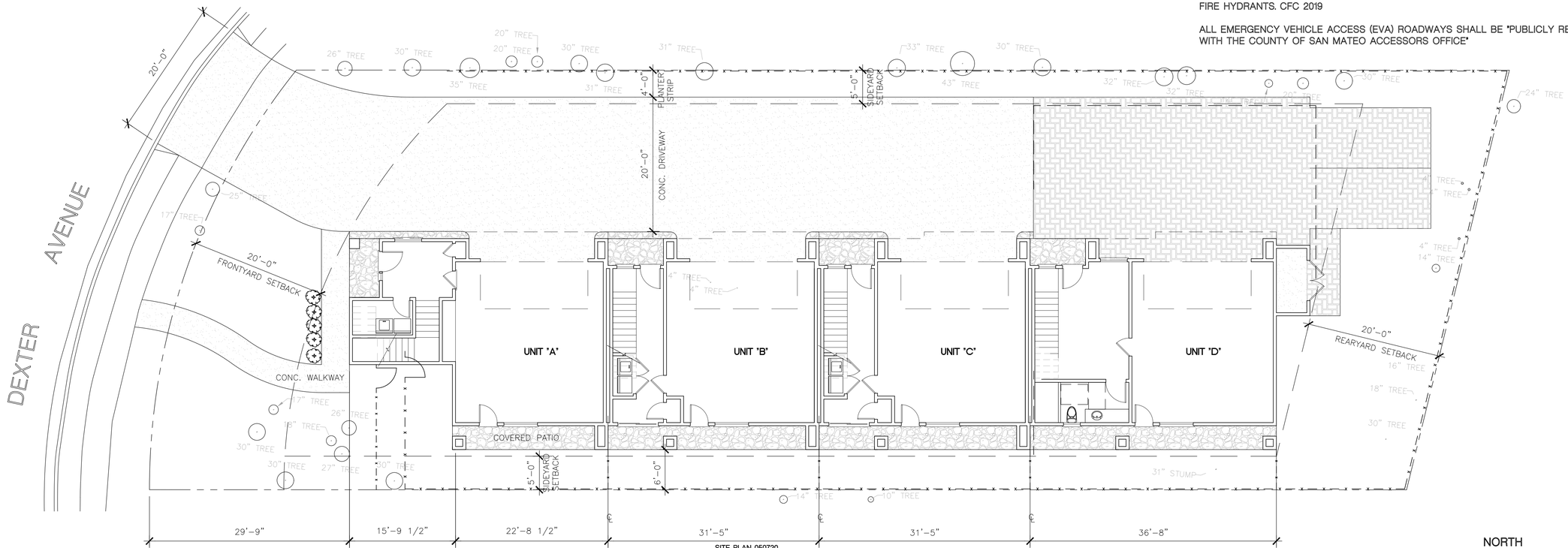
FIRE DEPARTMENT NOTES:

ALL CURBING LOCATED WITHIN THE COMPLEX THAT HAS NOT BEEN ASSIGNED AS ONSITE PARKING SHALL BE DESIGNATED AS "NO PARKING FIRE LANE". ALL FIRE LANES TO COMPLY WITH MPFD STANDARD FOR "DESIGNATION AND MARKING OF FIRE LANE" PROVIDE A COMPLETE NO PARKING-FIRE LANE STRIPPING PLAN WITH NO PARKING SIGNAGE IN ACCORDANCE TO MPFD STANDARD ON SUBSEQUENT SUBMITTAL

FIRE APPARATUS ROADWAYS, INCLUDING PUBLIC OR PRIVATE STREETS OR ROADS USED FOR VEHICLE ACCESS SHALL BE INSTALLED AND IN SERVICE PRIOR TO CONSTRUCTION. FIRE PROTECTION WATER SERVING ALL HYDRANTS SHALL BE PROVIDED AS SOON AS COMBUSTIBLE MATERIAL ARRIVES ON THE SITE:

PRIOR TO COMBUSTIBLE MATERIAL ARRIVING ON THE SITE, CONTACT THE MENLO PARK FIRE PROTECTION DISTRICT TO SCHEDULE AN INSPECTION OF ROADWAYS AND FIRE HYDRANTS. CFC 2019

ALL EMERGENCY VEHICLE ACCESS (EVA) ROADWAYS SHALL BE "PUBLICLY RECORDED WITH THE COUNTY OF SAN MATEO ACCESSORS OFFICE"



SITE PLAN 050720
SCALE: 1/8" = 1'-0"

NORTH

SEE CIVIL DRAWINGS FOR GRADING AND DRAINAGE DESIGN

SITE PLAN
SCALE: 1/8" = 1'-0"

DL Architecture & Planning

616 RAMONA ST. STE 21
PALO ALTO, CA 94301
(650) 321-2808

Seals:

LICENSED ARCHITECT
ERIC C. KENG
No. C 23184
11 - 2021
RENEWAL DATE
STATE OF CALIFORNIA

Client:

DEXTER VILLA

20 DEXTER AVENUE
REDWOOD CITY, CA

NO.	SUBMISSION/REVISION	DATE
1	SUBDIVISION	2-28-20
2	PLN. REV.	6-1-20

Drawing Title:

PROJECT DATA, SITE PLAN

Drawing Status:

SITE DEVELOPMENT

Drawn By	Checked By	Date
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Project Number:

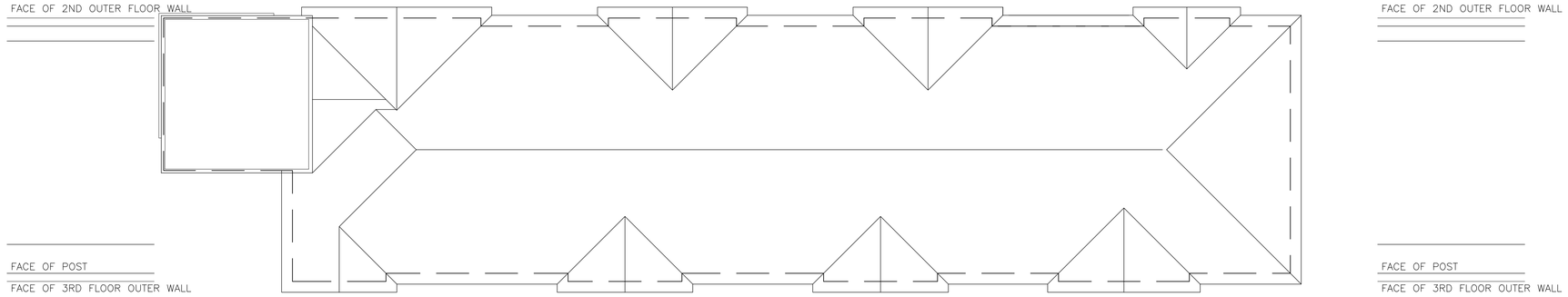
Scale:

1/8" = 1'-0"

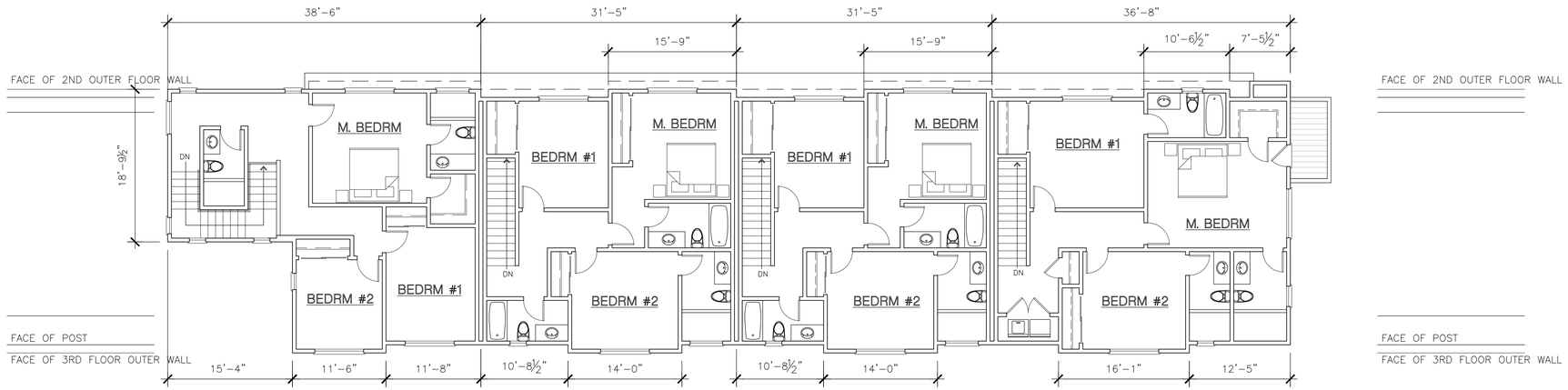
Drawing Number:

SK-1

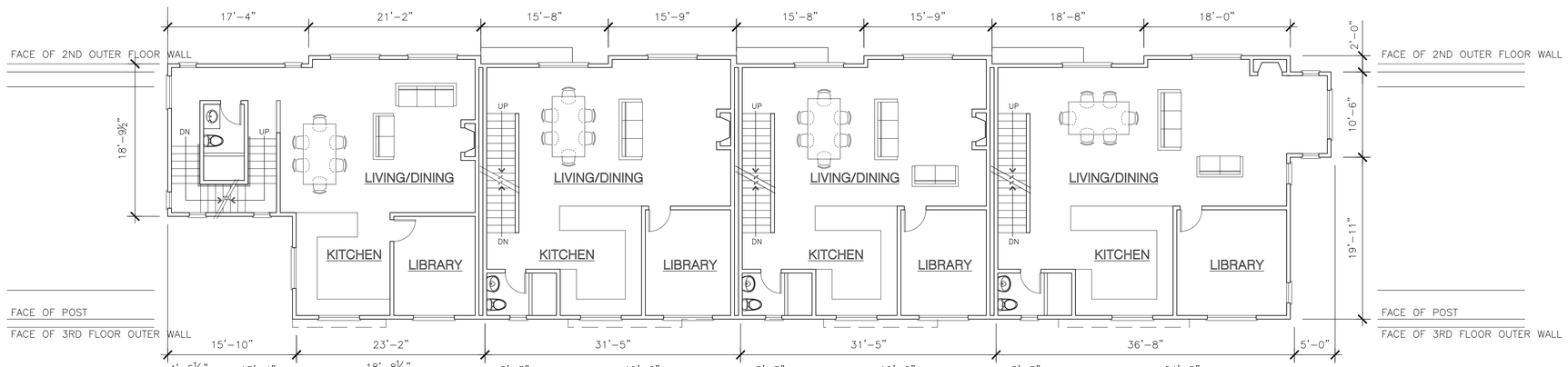
ROOF PLAN
SCALE: 1/8" = 1'-0"



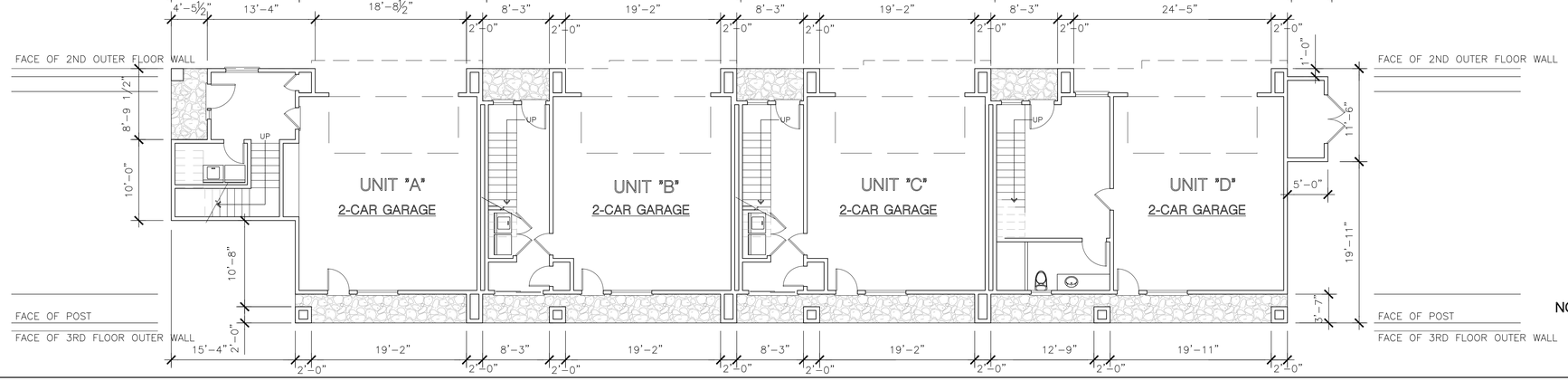
3rd FLOOR PLAN
SCALE: 1/8" = 1'-0"



2nd FLOOR PLAN
SCALE: 1/8" = 1'-0"



1st FLOOR PLAN
SCALE: 1/8" = 1'-0"



NORTH

DL Architecture & Planning

616 RAMONA ST. STE 21
PALO ALTO, CA 94301
(650) 321-2808

Seals:

LICENSED ARCHITECT
ERIC C. KENG
No. C 23184
11 - 2021
RENEWAL DATE
STATE OF CALIFORNIA

Client:

~~DEXTER~~ VILLA

---

20 DEXTER AVENUE
REDWOOD CITY, CA

NO.	SUBMISSION/REVISION	DATE
△	SUBDIVISION	2-28-20
△	PLN. REV.	6-1-20
△		
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Drawing Title:

FLOOR PLANS & ROOF PLAN

Drawing Status:

SITE DEVELOPMENT

Drawn By	Checked By	Date
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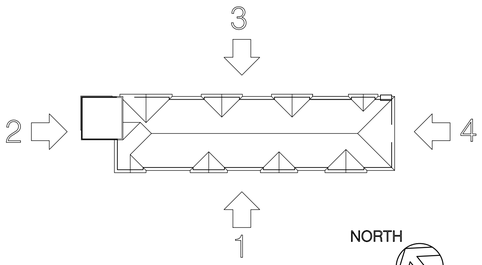
Project Number:

Scale:

1/8" = 1'-0"

Drawing Number:

SK-2



KEY PLAN

N.T.S.

3 NORTH ELEVATION

SCALE: 1/8" = 1'-0"

4 EAST ELEVATION

SCALE: 1/8" = 1'-0"

2 WEST ELEVATION

SCALE: 1/8" = 1'-0"

1 SOUTH ELEVATION

SCALE: 1/8" = 1'-0"

DL Architecture & Planning

616 RAMONA ST. STE 21
PALO ALTO, CA 94301
(650) 321-2808

Seals:

LICENSED ARCHITECT
ERIC C. KENG
No. C 23184
11 - 2021
RENEWAL DATE
STATE OF CALIFORNIA

Client:

DEXTER VILLA

20 DEXTER AVENUE
REDWOOD CITY, CA

NO.	SUBMISSION/REVISION	DATE
△	SUBDIVISION	2-28-20
△	PLN. REV.	6-1-20
△	PLN. REV.	7-26-20
△		
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Drawing Title:

BUILDING ELEVATIONS

Drawing Status:

SITE DEVELOPMENT

Drawn By	Checked By	Date
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Project Number:

Scale:

AS NOTED

Drawing Number:

SK-3

MWELO SUBMITTAL CHECKLIST

Submittal Date: 5/26/20

Project Address: 20 Dexter Ave., Redwood City

Applicant Name: Gregory Lewis Landscape Architect Phone: (831) 359-0960

The following checklist provides a list of information that must be included on the plans before your permit application can be processed. This checklist covers both the performance compliance method and the prescriptive compliance method. Please indicate which compliance method is used and provide the appropriate information on the plans.

☒ Performance Approach ☐ Prescriptive Approach (Skip to Page Three)

PERFORMANCE APPROACH

Landscape Documentation Package (Title 23, Chapter 2.7 §492.3)

- ☒ The project's address, total landscape area, water supply type, and contacts shall be stated on the plans.
- ☒ Add, sign and date the following statement on the plans: "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package."
- ☒ Water Efficient Landscape Worksheet that includes a hydrozone information table and water budget calculations shall be submitted for plan check.
- ☒ A landscape design plan and irrigation design plan shall be submitted for plan check.

Water Efficient Landscape Worksheet (Title 23, Chapter 2.7 §492.4 and §492.13)

- ☒ Incorporate the Water Efficient Landscape Worksheet into plans. Show that the Maximum Applied Water Allowance (MAWA) meets or exceeds the calculated Estimated Total Water Use (ETWU).
- ☒ The evapotranspiration adjustment factor (ETAF) for the landscape project shall not exceed a factor of (0.55 for residential areas) (0.45 for non-residential areas).
- ☒ The plant factor used shall be from WUCOLS or from horticultural researchers with academic institutions. WUCOLS plants database can be found on-line at: http://ucanr.edu/sites/WUCOLS/
- ☒ All water features shall be included in the high water use hydrozone. All temporary irrigated areas shall be included in the low water use hydrozone.
- ☒ All Special Landscape areas shall be identified on the plans. The ETAF for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0.
- ☒ For the purpose of calculating ETWU, the irrigation efficiency is assumed to be 0.75 for overhead spray devices and 0.81 for drip system devices.

Landscape Design Plan (Title 23, Chapter 2.7 §492.6)

- ☒ The landscape design plans, at a minimum, shall:
  - ☒ Delineate and label each hydrozone by number, letter, or other methods.
  - ☒ Identify each hydrozone as low, moderate, high water, or mixed water use.
  - ☒ Identify recreational areas, areas solely dedicated to edible plants, areas irrigated with recycled water, type and surface area of water features, impermeable and permeable hardscape, and any infiltration systems.
- ☒ For hydrozone with a mix of both low and moderate water use plants or both moderate and high water use plants, the higher plant factor or the plant factor based on the proportions of the respective plant water uses shall be used. Hydrozones containing a mix of low and high water use plants is not permitted.

PRESCRIPTIVE APPROACH
(For landscape areas between 500 and 2,499 square feet)

Plant Material (Title 23, Chapter 2.7, Appendix D (b) (3))

- ☒ For residential areas, 75% of landscape, excluding edibles and areas using recycled water, shall consist of plants that average a WUCOLS plant factor of 0.3. WUCOLS plants database can be found online at: http://ucanr.edu/sites/WUCOLS/
- ☒ For non-residential areas, 100% of the plants, excluding edibles and areas using recycled water, shall consist of plants that average a WUCOLS plant factor of 0.3.
- ☒ Add note to plans: "A minimum 3-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas except turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated."

Turf (Title 23, Chapter 2.7, Appendix D (b) (4))

- ☒ Turf shall not exceed 25% of the landscape area in residential areas.
- ☒ No turf permitted in non-residential areas
- ☒ Turf not permitted on slopes greater than 25%.
- ☒ Turf is prohibited in parkways less than 10 feet wide.

Irrigation (Title 23, Chapter 2.7, Appendix D (b) (5))

- ☒ Automatic weather-based or soil-moisture based irrigation controllers shall be installed on the irrigation system.
- ☒ Pressure regulators shall be installed on the irrigation system to ensure dynamic pressure of the system is within the manufacturer's recommended pressure range.
- ☒ Manual-shut-off valves shall be installed as close as possible to the point of connection of the water supply.
- ☒ Areas less than 10-feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray.
- ☒ For non-residential projects with landscape areas of 1,000sqft or more, private sub-meter(s) to measure landscape water use shall be installed.
- ☒ Add note to plans: "At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule of landscape and irrigation maintenance."
- ☒ Add note to plans: "Unless contradicted by a soils test, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil"

The landscape contractor is to follow all of the County of San Mateo landscape and irrigation check list requirements.

- ☒ Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape.
- ☒ Add note to plans: "Recirculating water systems shall be used for water features"
- ☒ Add note to plans: "A minimum 3-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas except turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated."
- ☒ Add note to plans: "For soils less than 6% organic matter in the top 6 inches of soil, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil"

Irrigation Design Plan (Title 23, Chapter 2.7 §492.7)

- ☒ The irrigation plans, at a minimum, shall contain the following:
  - ☒ Location and size of spate water meters for landscape
  - ☒ Location, type, and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices.
  - ☒ Static water pressure at the point of connection the public water supply
  - ☒ Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station.
- ☒ A dedicated water service meter or private submeter shall be installed for all (non-residential irrigated landscapes of at least 1,000sqft) (residential irrigated landscape areas of at least 5,000sqft).
- ☒ Add note to plans: "Pressure regulating devices are required if water pressure is below or exceeds the recommended pressure of the specified irrigation devices."
- ☒ Manual shut-off valves shall be required, as close as possible to the point of connection of the water supply, to minimize water loss in case of an emergency or routine repair.
- ☒ Add note to plans: "Check valves or anti-drain valves are required on all sprinkler heads where low point drainage could occur."
- ☒ Areas less than 10-feet in width in any direction shall be irrigated with subsurface or drip irrigation.
- ☒ Overhead irrigation shall not be permitted within 24-inches of any non-permeable surface.

Required Statements and Certification (Title 23, Chapter 2.7 §492.6, §492.7 and §492.9)

- ☒ Add the following statement on the landscape and irrigation plans: "I have complied with the criteria of the ordinance and applied them for the efficient use of water in the landscape design plans".
- ☒ The final set of landscape and irrigation plans shall bear the signature of a licensed landscape architect, licensed landscape contractor, certified irrigation designer, licensed architect, licensed engineer, licensed land surveyor, or personal property owner.
- ☒ Add note to plans: "A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes."
- ☒ Add note to plans: "A Certificate of Completion shall be filled out and certified by either the designer of the landscape plans, irrigation plans, or the licensed landscape contractor for the project".
- ☒ Add note to plans: "An irrigation audit report shall be completed at the time of final inspection."

2 Hydrozone Summary

HYDROZONE	VALVES	IRRIG. METHOD	AREA sq.ft.	% of LANDSCAPE AREA
1 Low water shrub	1	Drip	556	100%
TOTAL			556	100%

Summary by Hydrozone	Area (Sq.ft.)	% of Landscape Area
High Water Use	0	0%
Moderate Water use	0	0%
Low Water Use	556	100%
TOTAL	556	100%

2 WATER EFFICIENT LANDSCAPE WORKSHEET

Date: 5/12/2020 5/26/20

Project Address: Two Duplexes, 20 Dexter Ave., Redwood City

Total Planted Area (sq.ft.) 556

Reference Evapotranspiration (Eto): 43 Palo Alto/Los Altos/Redwood City

HYDRO ZONE NO.	VALVES	HYDRO ZONE DESC.	Plant Factor PF	Irrig. Method	Irrig. Efficiency IE	ETAF PF/IE	LDSCP AREA Square Feet	ETAF x Area	Estimated Total Water Use (Gal.)
Regular Landscape Areas									
1	1	Drip,low water,shrub	0.3	Drip	0.81	0.3704	556	205.93	5,490
2									
3									
4									
5									
6									
7									
8									
						Totals	556	206	5,490
Special Landscape Areas									
						1	0		
						1			
						1			
						Totals	0		0
								ETWU Total	5,490
								Maximum Allowed Water Allowance (MAWA)	8,153

Residential ETAF for MAWA calc. 0.55

MAWA (Annual Gallons Allowed) = (Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]

ETAF Calculations

Regular Landscape Areas	
Total ETAF x Area	206
Total Area	556
Average ETAF	0.37

All Lanscape Areas	
Total ETAF x Area	206
Total Area	556
Sitewide ETAF	0.37

Average total ETAF must be .55 or less for residential

SHEET INDEX

Landscape Documentation

Revision
1 3/2/20
2 5/26/20

GREGORY LEWIS LANDSCAPE ARCHITECT
3 Park Way Santa Cruz, CA 831-359-0960

LICENSED LANDSCAPE ARCHITECT GREGORY LEWIS No. 2176 STATE OF CALIFORNIA 5/26/20

Dexter Villa
20 Dexter Avenue, Redwood City, CA

Date 10/7/19
Scale As Noted
Drawn Greg
Job
Sheet L0
of 5

Tree Protection During Construction

PROTECTED TREES DESIGNATED FOR PRESERVATION SHALL BE PROTECTED DURING DEVELOPMENT OF A PROPERTY BY COMPLIANCE WITH THE FOLLOWING, WHICH MAY BE MODIFIED BY THE PLANNING DIRECTOR:

A. PROTECTIVE FENCING SHALL BE INSTALLED NO CLOSER TO THE TRUNK THAN THE DRIPLINE, AND FAR ENOUGH FROM THE TRUNK TO PROTECT THE INTEGRITY OF THE TREE. THE FENCE SHALL BE A MINIMUM OF FOUR FEET IN HEIGHT AND SHALL BE SET SECURELY IN PLACE. THE FENCE SHALL BE OF A STURDY BUT OPEN MATERIAL (I.E., CHAINLINK), TO ALLOW VISIBILITY TO THE TRUNK FOR INSPECTIONS AND SAFETY. THERE SHALL BE NO STORAGE OF ANY KIND WITHIN THE PROTECTIVE FENCING. IF APPROVED BY THE PROJECT ARBORIST THE PROTECTIVE FENCING CAN BE MOVED TO ALLOW FOR CONSTRUCTION OF PAVING, LANDSCAPING, AND STRUCTURES. WHEN IT IS NOT POSSIBLE TO INSTALL FENCING DUE TO THE NEED OF ACCESS TO INSTALL THE STRUCTURES THE PROJECT ARBORIST MAY APPROVE INSTALLATION OF 6 INCH DEEP COARSE BARK AND HEAVY DUTY PLYWOOD OVER THE ROOT ZONE AREA TO KEEP IT FROM BEING OVERLY COMPACTED DURING CONSTRUCTION

B. THE EXISTING GRADE LEVEL AROUND A TREE SHALL NORMALLY BE MAINTAINED OUT TO THE DRIPLINE OF THE TREE. ALTERNATE GRADE LEVELS MAY BE APPROVED BY THE PLANNING DIRECTOR.

C. TREES THAT HAVE BEEN DAMAGED BY CONSTRUCTION SHALL BE REPAIRED IN ACCORDANCE WITH ACCEPTED ARBORICULTURE METHODS.

D. NO SIGNS, WIRES, OR ANY OTHER OBJECT SHALL BE ATTACHED TO THE TREE.

Landscape Notes

1 MULCH GROUND COVER - At the end of construction install 3 inch deep top dress mulch on all bare soil areas to reduce the chance of soil erosion except in lawn area or creeping and rooting groundcovers (none on this project). Provide owner with different mulch samples and prices including dark brown mahogany colored Wonder Mulch from Vision Recycling Fremont.

2 REPLACEMENT TREES - No replacement trees are required. No large trees are being removed

3 The planting of medium and high water use plants and lawn is limited by Water Efficient Landscape Rules of San Mateo County. There are no new medium or high water use plants being installed on this project.

5 There are no live turf areas.

6 There are no water features or pools

7 For soils less than 6% organic matter in the top 6 inches of soil, compost at a rate of a minimum of six cubic yards per 1000 square feet of permeable area shall be incorporated to a depth of six inches into the soil. In areas under the canopy of existing trees to remain soil prep. plant pits only and do not rototill soil amendments into all of the ground because you will hurt lots of existing tree roots.

Plant Legend

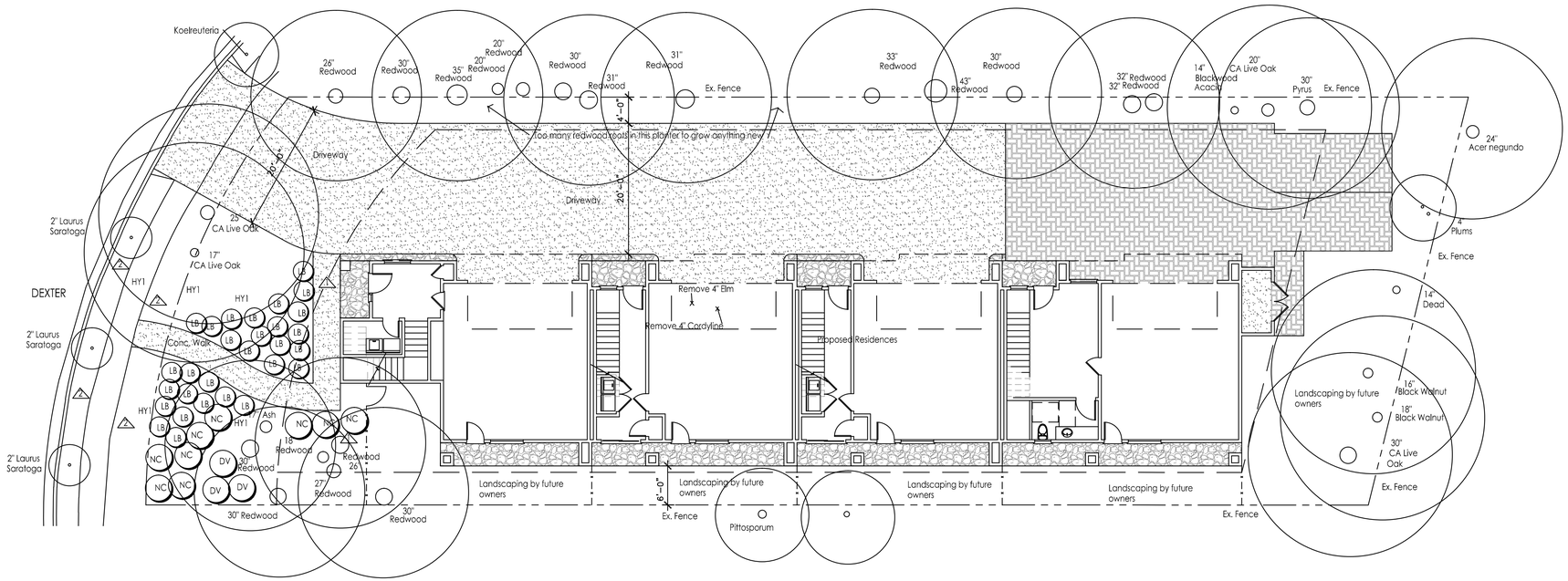
	KEY	QTY	SIZE	BOTANICAL NAME	COMMON NAME	WOCULS WATER USE RATING
	MEDIUM SHRUBS					
2	DV	3	5	Dietes vegeta	Fortnight Lily	LOW
2	NC	9	5	Nandina Gulf Stream	Heavenly Bamboo	LOW
	GROUNDCOVERS					
2	LB	29	1	Lomandra Breeze		LOW

Plant quantities are for planning purposes only. Contractor is to do own plant count and install all plants on plan

2 Hydrozone Summary

	HYDROZONE	VALVES	IRRIG. METHOD	AREA sq.ft.	% of LANDSCAPE AREA
HY 1	1 Low water shrub	1	Drip	556	100%
	TOTAL			556	100%

Summary by Hydrozone	Area (Sq.ft.)	% of Landscape Area
High Water Use	0	0%
Moderate Water use	0	0%
Low Water Use	556	100%
TOTAL	556	100%



"I have complied with the criteria of the MWELO ordinance and applied them for the efficient use of water in the landscape design plans" GregLewis 5/26/20

Hydrozone Plan &

Landscape Plan

1"=10'-0"

0' 10' 20'

Revision

1 3/2/20

2 5/26/20

GREGORY LEWIS LANDSCAPE ARCHITECT
3 Park Way Santa Cruz, CA 831 3 0

LICENSED LANDSCAPE ARCHITECT GREGORY LEWIS No. 2176 GregLewis 4/28/2022 5/26/20 STATE OF CALIFORNIA

Dexter Villa

20 Dexter Avenue, Redwood City, CA

Date	10/7/19
Scale	As Noted
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Drip Irrigation Notes

1) Secure larger 3/4" drip tubing 1" below grade with 7" or 11" U-shaped stakes 3 feet on center or closer so that the tubing can be found easily but does not show if the mulch gets brushed away. Cover tubing with soil and mulch and install manual flush valves at ends of tubing and mark them so they can be found easily.
2) Run large tubing next to or over rootball of plants to minimize length of smaller 1/4" tubing. Secure emitters on 3/4" tubing at plant root balls. When necessary run short lengths of 1/4" tubing from emitters to plant root balls. Install stakes on 1/4" tubing at 12" on center and cover tubing with 1" of soil plus mulch.
3) As the plant and plant rootball increase in size, the locations of the emitters may need to be adjusted so they are evenly spaced over the rootball.
4) Install pressure compensating emitters (with minimal difference in flow between 10 PSI and 40 PSI) at each plant on root ball (not right at stem). Use Agrifim PC Plus (pressure compensating emitters). Use the ones that 1/4 tubing can be connected to. Other emitters may have a higher discharge rate at startup requiring larger pipe sizes.

Emitter schedule:
Three 1 GPH emitters at small and medium shrubs and ground covers DV, LB, NC

With shrubs and trees that have multiple emitters, put some over root ball (not right on stem) and some out under future canopy. Space emitters evenly in root zone area.

3/4" PE drip tubing to come within 12" or closer of each plant with a minimum of 3/4" tubing just to get to other side of root ball. The Landscape Contractor is to ask for an inspection at least 3 working days in advance by the landscape architect or owner of the drip tubing and emitter layout prior to burying tubing 1 inch deep to make sure you are doing this.

Irrigation Notes

1 See sheet L3and L4 for details and specifications
2 This system is designed to operate with minimum 5 GPM at minimum 55 p.s.i. at the point of connection. If this condition is not met contact the Landscape Architect for possible redesign. If pressure exceeds 75 psi at point of connection install a Wilkins 600 1" pressure regulator . There is approx. ____static psi at this site.
3 Detector tape should be installed with any pressure lines not buried in the same trench with control wires and with any lines of any kind under paving not in a trench with control wires.
4 At valve groupings provide a threaded capped pressure line stubout so it is easy to add additional valves later. Run a few extra wires to these locations from the controller - enough so that at least 2 valves could be added at any proposed valve grouping on the plan - especially in the rear yards that are not being landscaped by the developer.
5 Electric controllers should be set to water between 6:00 PM and 11:00 a.m. to avoid watering during times of higher wind or temperature and programmed with repeat cycles to avoid runoff. This is not as important for drip that is not affected by the wind. Set irrigation schedule according to plants' water needs.
6 The routing of sprinkler lines is schematic on the plan. Do not put valves too close to trees. Stay 8' to 10' away if possible. Do not put pressure lines under trees. Install line in planting areas instead of under paving whenever possible.
7 Check with the owner for final location of controller so it can be coordinated with the electrical supply. Run sleeves under driveways and other paving for wires and irrigation lines.
8 Add enough hosebibs so that there is a hosebib on the proposed homes or on the irrigation system so that a 50 foot long hose can reach all planter areas from one of the hose bibs.
9 An irrigation audit may be required by an independent irrigation auditor as per 492.12 Irrigation Audit of the most recent State MWELO. The irrigation auditor is to provide an irrigation schedule for plants during the establishment period when they need more water and a base schedule for when the plants need less water after establishment. He/she should also provide irrigation parameters used to set the controller as per 492.10 Irrigation Scheduling in the most recent version of the State MWELO
10 All irrigation emission devices must meet the requirements set in the ANSI standard ASABE/ICC 802-2014. "Landscape Irrigation Sprinkler and Emitter Standard" All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014
11 Pressure regulating devices are required if water pressure is below or exceeds the recommended pressure of the specified irrigation devices
12 Check valves or anti-drain valves are required on all sprinkler heads where low point drainage could occur
13 Soil moisture levels need to be brought up by hand watering or a temporary spray system before the drip system can take over.
14 The contractor is to provide a diagram of the irrigation plan showing hydrozones that shall be kept with the irrigation controller for subsequent management purposes
15 The contractor is to provide an "as built" drawing of any significant changes such as pressure line and valve location changes
16 A Certificate of Completion shall be filled out and certified by either the designer of the landscape plans, irrigation plans, or the licensed landscape contractor for the project
17 An irrigation audit report shall be completed at the time of final inspection

Irrigation Legend

KEY	MANUF.	MANUF. #	DESCRIPTION
E L3	C Hunter	Pro-C	4 station Controller expandible for more stations wall mount exterior with Wireless Solar Sync On-Site Weather Station. Controller will change it's program based on current weather conditions. Install weather sensor in a sunny location where it will get rain
G L3	Hunter	PGV 101G	Automatic master valve 1"
A L3			Private 3/4" Water Meter below grade in valve box at point of connection this will keep track of irrigation water use and help find leaks
A L3			1" Manual brass shutoff valve in valve box same size as pressure line
C L3	Hunter	PGV-ASV 075	3/4" antisiphon valve with 3/4" Amiad Filter, Senniger PR30 pressure regulator, and adaptor to drip tubing
D L3	HB Champion		Hose bib below grade in 10" valve box with bolt down lid with outlet pointed up for easy hose connection See Irrigation Note #8.

2 Master valve will have to be activated to operate hosebibs. Ask owner if they prefer to connect hose bibs to potable water

Hydrozone Summary

HYDROZONE	VALVES	IRRIG. METHOD	AREA sq.ft.	% of LANDSCAPE AREA
3/4" Low water shrub	1	Drip	556	100%
1"				
TOTAL			556	100%

1-1/2" Summary by Hydrozone	Area (Sq.ft.)	% of Landscape Area
High Water Use	0	0%
Moderate Water Use	0	0%
Low Water Use	556	100%
TOTAL	556	100%

EW 1 L3

1" Pressure line - Sch 40 PVC
Lines under paving Sch 40 PVC - 24" of cover
1-1/2" cover (24" of cover under A.C. paving)

PL Pressure line - 1" Sch 40 PVC

NP Non Pressure line - 1" Sch 40 PVC

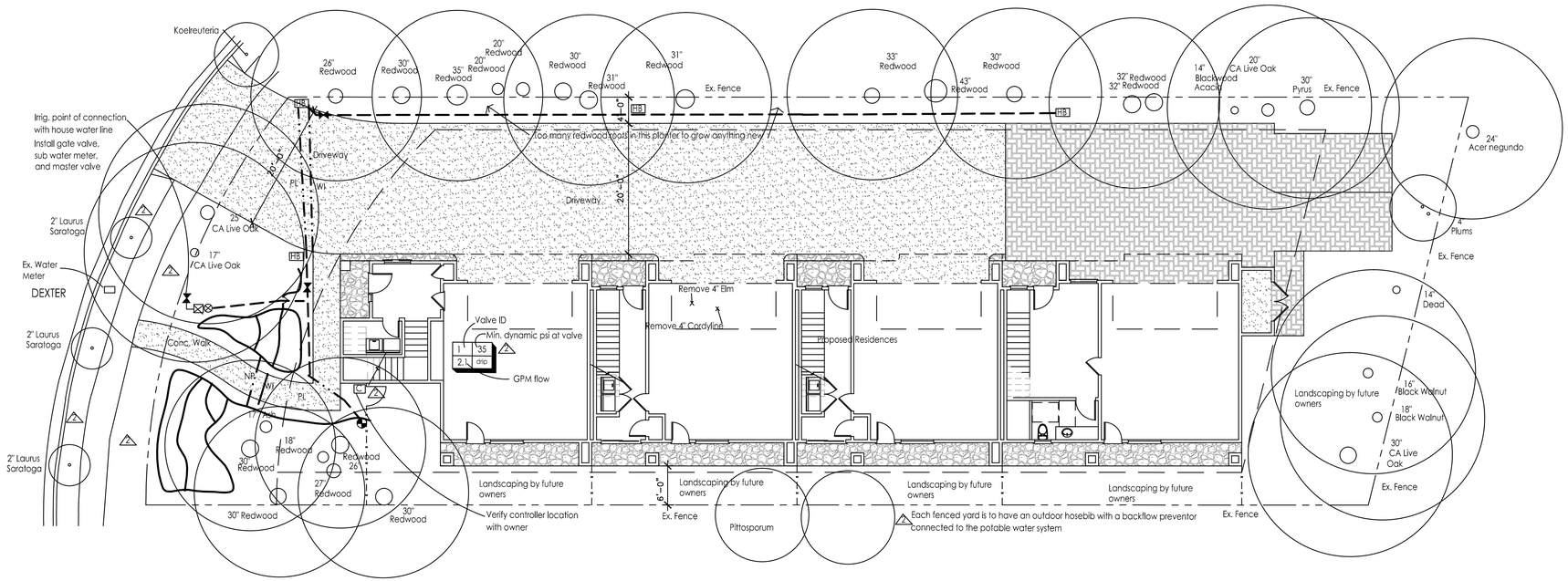
WI 1-1/2" gray elec. conduit for control wires.

Also install an extra capped 1" water line for future use under paving

F L3 3/4" PE drip tubing with compression fittings - see Drip Irrigaiton Notes

3/4" PE drip tubing with compression fittings at tree - see Drip Irrigaiton Notes

All lines under pavement to be sleeved using a Sch 40 PVC sleeve 2 sizes larger than the pipe inside



"I have complied with the criteria of the MWELO ordinance and applied them for the efficient use of water in the irrigation design plans" Greg Lewis 5/26/20

Irrigation Plan

1"=10'-0"
0' 10' 20'

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1 3/2/20
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3 Park Way Santa Cruz, CA

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Dexter Villa

20 Dexter Avenue, Redwood City, CA

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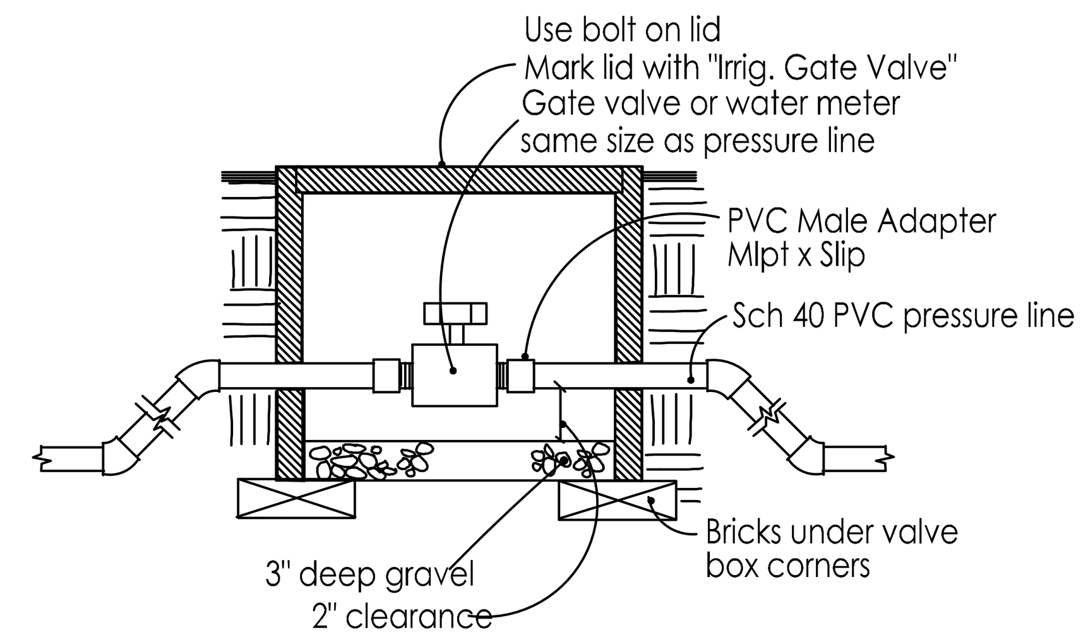
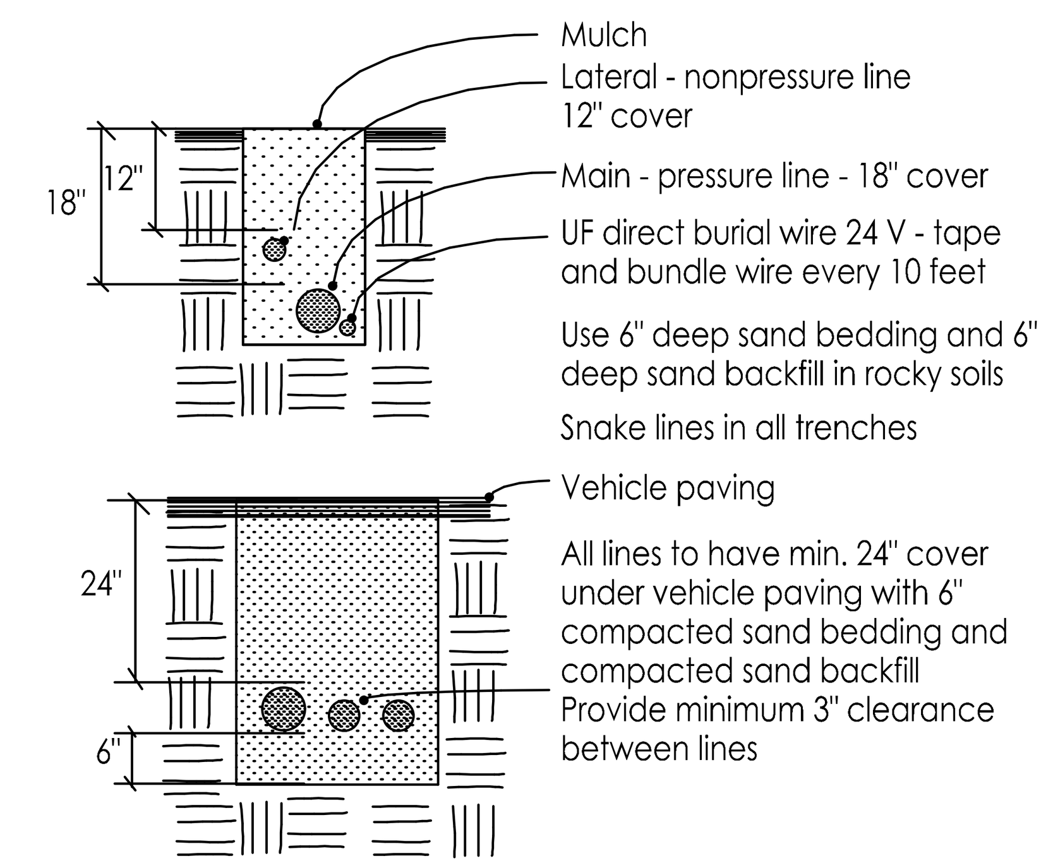
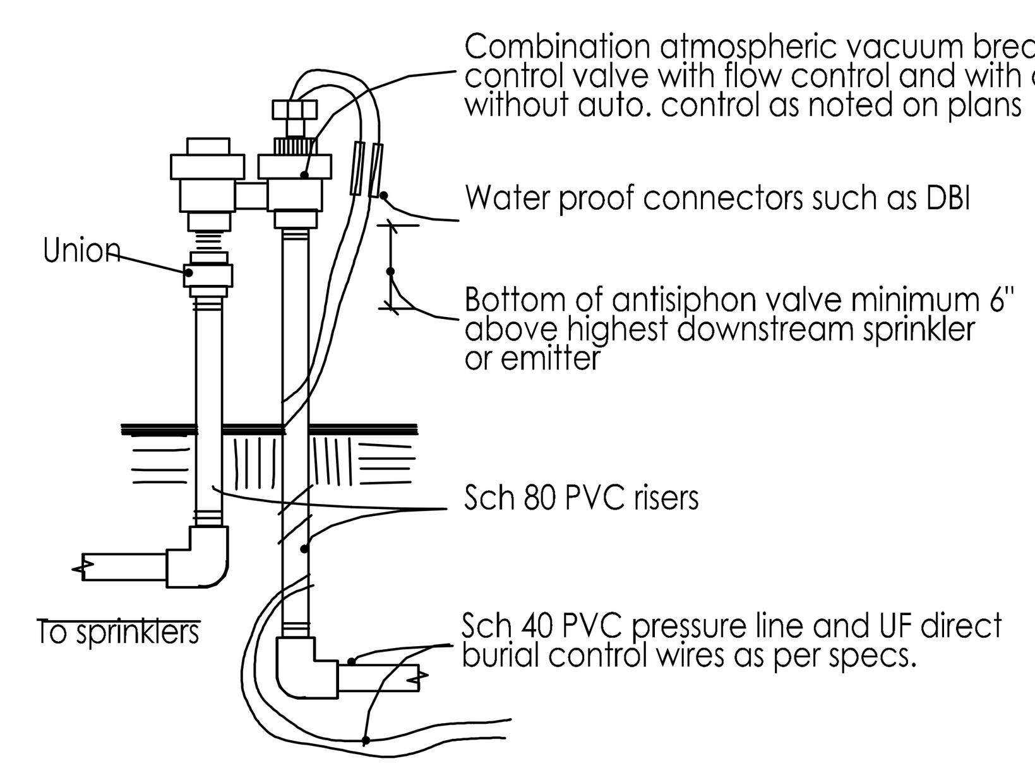


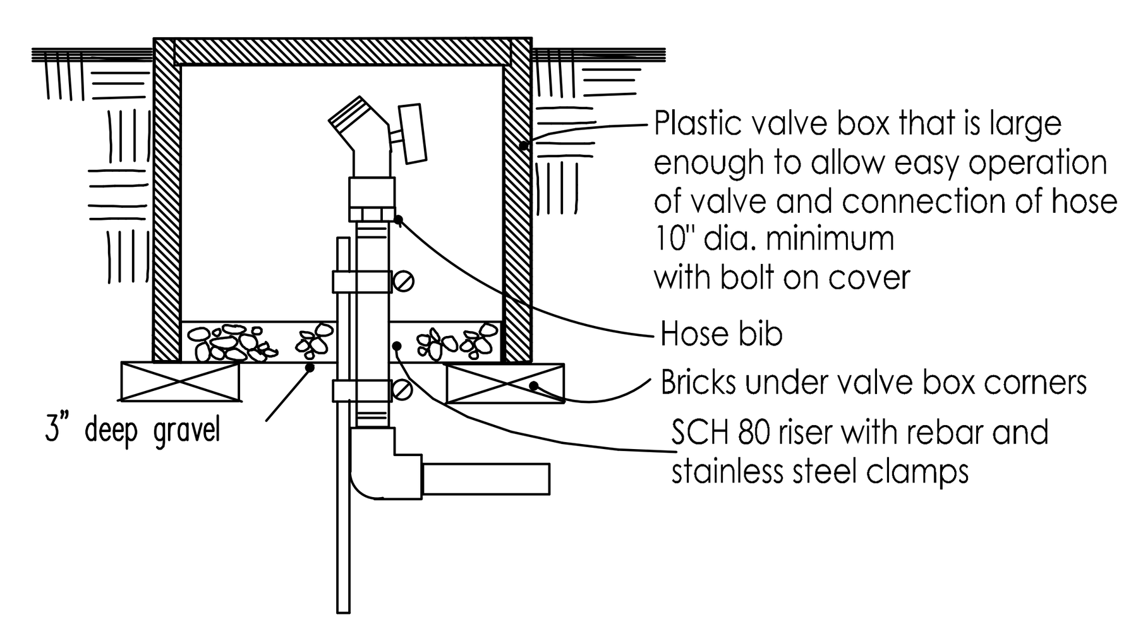
Manual Gate Valve (A)
No Scale



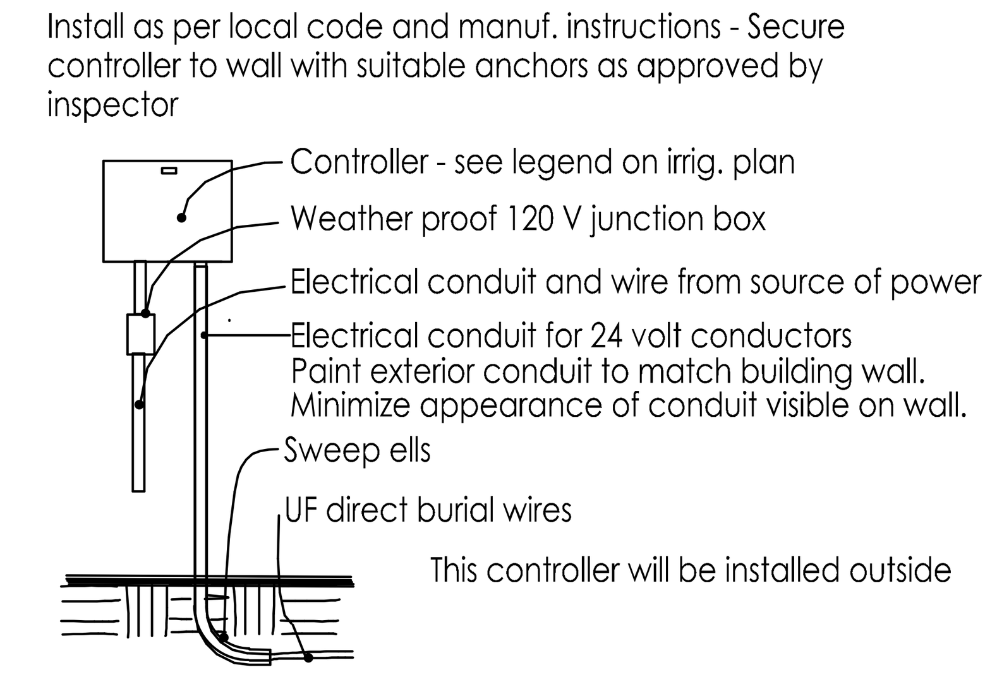
Trenches/Lines (B)
No Scale



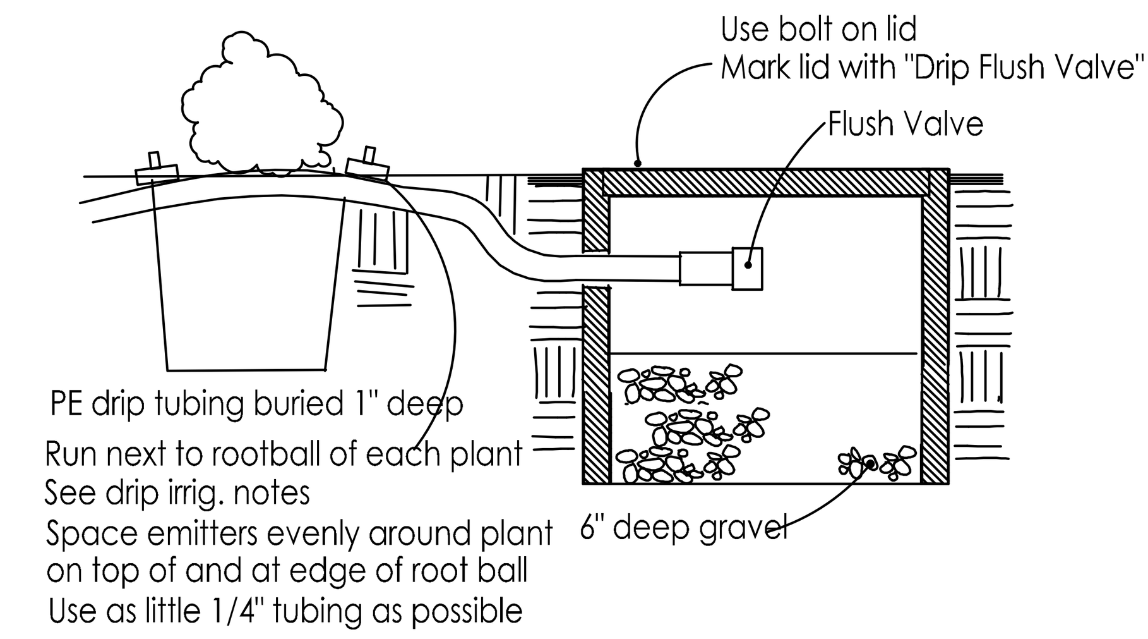
Auto. Antisiphon Valve (C)
No Scale



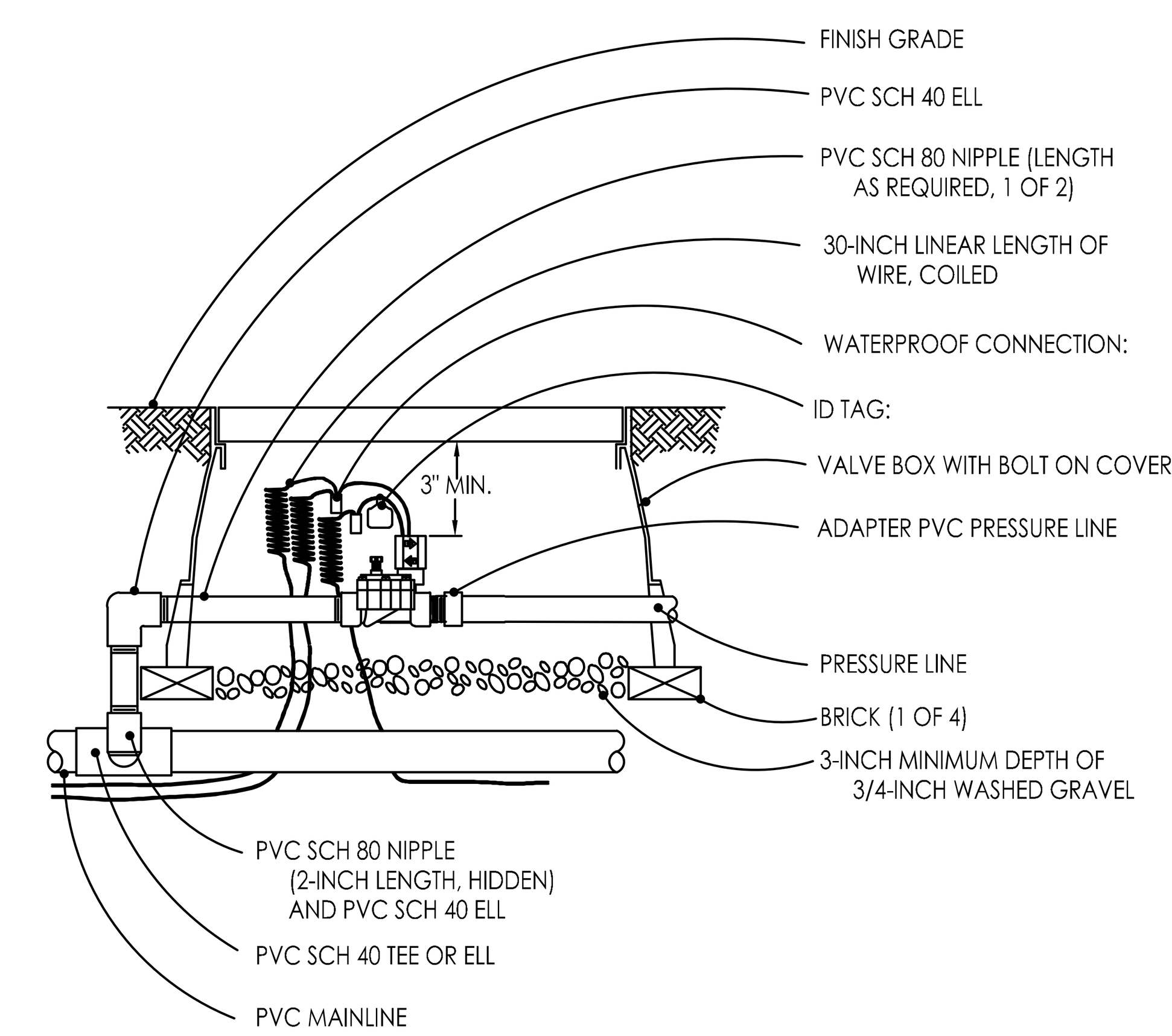
Hose Bibb Below Grade (D)
No Scale



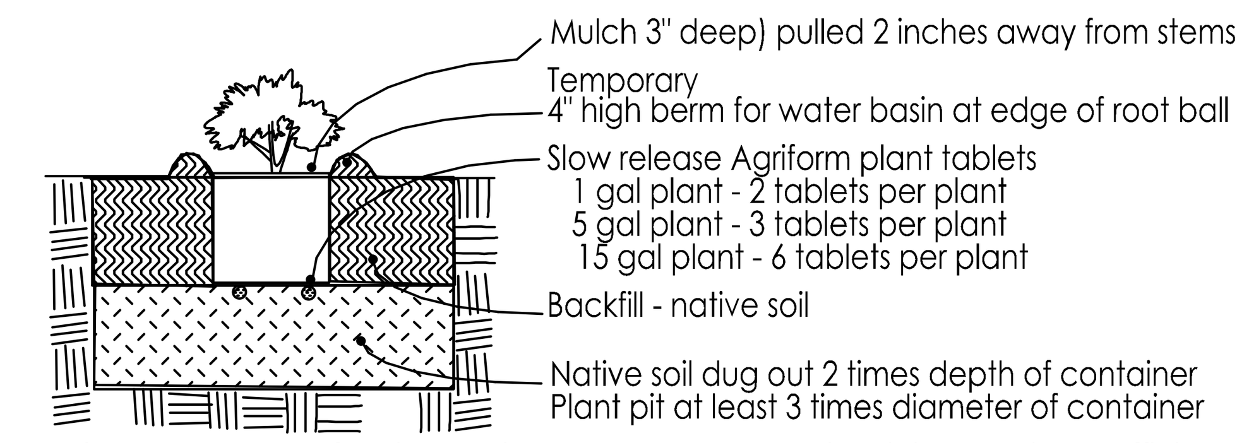
Wall Mount Controller (E)
No Scale



Drip Emitter and Flush Valve (F)
No Scale

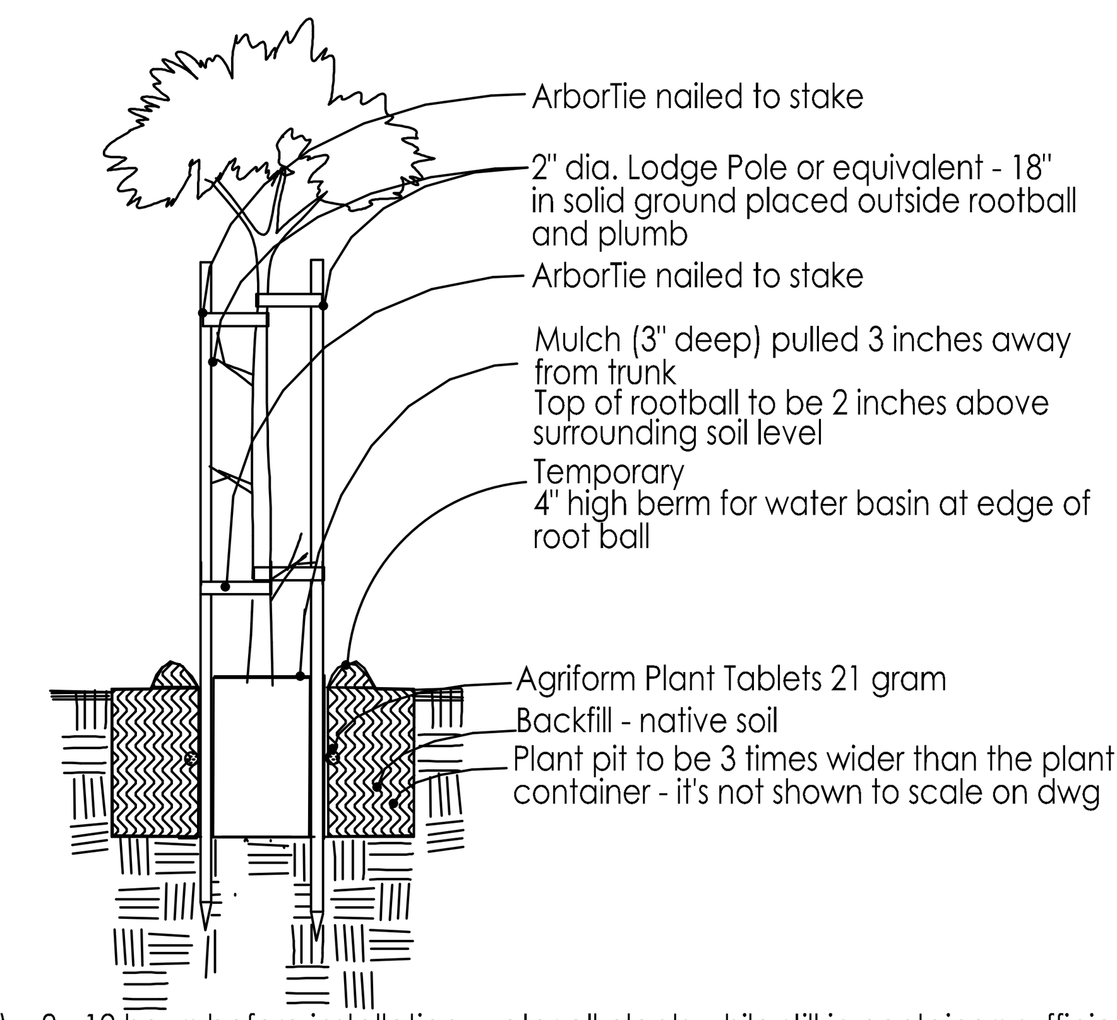


Remote Control Master Valve (G)
No Scale



1) 8 - 12 hours before installation, water all plants while still in containers sufficiently to thoroughly wet root balls
2) Dig the plant hole at least 3 times the dia. and 2 times the depth of the plant container.
3) Replace this mixture in bottom half of hole and walk on it. The level of it should be such that when the plant is installed and settled it will be slightly above grade of existing soil. Fill hole with water .
4) Remove rootball carefully from container by tapping out, not pulling out by the stem. Scarify rootball walls in 3 vertical cuts and bottom to 1/2" deep, or by cutting roots of 1/2" or larger with shears. Do not pull roots apart.
5) Install fertilizer packets under rootball of plant. Set rootball on prepared surface and fill hole to 1/2 the depth, tamping soil around rootball. Fill hole with water.
6) Fill the remainder of the hole with backfill and pack it but do not tamp rootball.
7) Make the water basin.
8) Water shrub thoroughly within 1 hour of planting by filling the basin and allowing the water to percolate in, doing this 3 times or more until root ball and backfill is wet
9) Install mulch

Shrub Planting
No Scale



1) 8 - 12 hours before installation, water all plants while still in containers sufficiently to thoroughly wet root balls
2) Dig hole at least 2" less deep than the container and 3 times wider than the diameter of the container the plants were delivered in.
3) Gouge holes in the side of the plant pit - 2 holes per sq. ft. of wall surface
4) Remove rootball carefully from container with support from below. Sever any circling roots (3/16"dia. or greater) with sharp knife. Do not pull roots apart. The severing of large roots will encourage new roots at the cuts. Install enough backfill under root ball so top of rootball ends up 2" above grade of surrounding soil when it settles. Install some of fertilizer packets under root ball.
5) Fill around rootball with backfill mix to 1/2 its height and pack soil as you fill with shovel handle or feet being careful not to disturb root ball
6) Put Agriform Plant Tablet fertilizer at this level adjacent to rootball and at bottom of hole (5 tablets per 15 gal. or 5 tablets per 1 inch of caliper width. Fill the remainder of the hole with backfill and pack it.
7) Water tree thoroughly by filling the basin and allowing the water to percolate in, doing this 3 times or more until root ball and backfill is wet
8) Install stakes such that the stakes and the tree ties won't damage the tree and the stakes won't lean toward each other. Cut off tops of stakes if necessary to lower below branches that could be rubbed by stakes. Install stakes so they are straight up and don't lean in to each other

Tree Planting
No Scale

Landscape Details

Revision	
1	3/2/20
2	5/26/20

GREGORY LEWIS LANDSCAPE ARCHITECT
Park Way Santa Cruz, CA 831

Dexter Villa
20 Dexter Avenue, Redwood City, CA

Date	10/7/19
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GENERAL CONDITIONS – SOIL PREPARATION, PLANTING, AND IRRIGATION

1.1 QUALITY ASSURANCE:
A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.
B. It is the Contractor's responsibility to verify all information contained in the plans and specifications and to notify the Architect of any discrepancy prior to ordering products or commencing with the work.
C. Check and verify dimensions, reporting any variations to the Architect before proceeding with the work.

1.2 CONTRACTOR COORDINATION
A. It is the responsibility of the Landscape Contractor to familiarize himself with all grade differences, location of walls, retaining walls, etc., and to coordinate work with the General Contractor.

1.3 DIMENSIONS AND SCALE
A. Dimensions are to take precedence over scale at all times. Large scale details are to take precedence over those at small scale. Dimensions shown on plans shall be adhered to insofar as it is possible, and no deviation from such dimensions shall be made except with the consent of the Architect. The Contractor shall verify all dimensions at the site and shall be solely responsible for same or deviations from same.

1.4 LAWS AND REGULATIONS
A. The Contractor shall conform to and abide by all city, county, state and federal building, labor and sanitary laws, ordinances, rules, and regulations.

1.5 LICENSES AND PERMITS
A. The Contractor shall give all notices and procure and pay for all permits and licenses that may be required to complete the work.

1.6 SUBMITTALS
A. At the request of the owner or the Landscape Architect, submit manufacturer's and/or supplier's specifications and other data needed to prove compliance with the specified requirements including certificates stating quantity, type, composition, weight, and origin of all amendments, chemicals, import soil, planter mix, plants, and irrigation equipment used on the site.

1.7 PRODUCT SUBSTITUTIONS
A. Any product substitutions shall be requested in writing. The Landscape Architect must approve or refuse any substitutions in writing. Lack of written approval will mean the substitution is not approved. Any difference in cost to the Contractor of a less expensive substitution shall be credited to the Owner's

1.8 ERRORS AND OMISSIONS
A. The Contractor shall not take advantage of any unintentional error or omission in the drawings or specifications. He will be expected to furnish all necessary materials and labor that are necessary to make a complete job to the true intent and meaning of these specifications. Should there be discrepancies in the drawings or specifications, the contractor shall immediately call the attention of the Architect to same and shall receive the complete instructions in writing.

1.9 INSPECTIONS/REVIEWS DEFINITION
A. Inspection or observation as used in these specifications means visual observation of materials, equipment, or construction work on an intermittent basis to determine that the work is in substantial conformance with the contract documents and the design intent. Such inspection or observation does not constitute acceptance of the work nor shall it be construed to relieve the contractor in any way from his responsibility for the means and methods of construction or for safety on the construction site. Inspection or observation will be done by the Landscape Architect only if requested by the owner in writing. This service will require a written contract for additional fees.

LANDSCAPE IRRIGATION

PART 1 – GENERAL

1.1 WORK INCLUDED

A. The work includes but is not necessarily limited to the furnishing of all materials, equipments, and labor required to install a complete irrigation system.

1.2 GUARANTEE. The entire sprinkler system shall be guaranteed by the Contractor in writing to be free from defects in material and workmanship for a period of one year from acceptance of the work. The guarantee shall include repair of any trench settlement occurring within the guarantee period, including related damage to paving, landscaping, or improvements of any kind.

1.3 REVIEWS
A. Request the following reviews prior to progressing with the work: (1) Layout of system (2) Depth of lines prior to backfilling (3) Coverage adjustment of all heads, valve boxes and operation of system.

1.4 WATER PRESSURE
A. Verify the existence of the minimum acceptable volume of water at the minimum acceptable dynamic pressure as per plan at the point of connection at the earliest opportunity, reporting insufficient volume and/or pressure to the Landscape Architect. Contractor is responsible for cost of installation of pressure regulator if pressure exceeds 80 psi.

1.5 UTILITIES
A. Verify the location of all existing utilities and services in the line of work before excavating. Take all precautionary measures necessary to avoid damaging

1.6 ELECTRICAL CONNECTION
A. Verify existence of 110 Volt 20 Amp. circuit for irrigation controller (by others) at location noted on plan for installation of controller.

PART 2 – PRODUCTS

2.1 PIPE
A. Plastic pipe is to be polyvinyl chloride, marked 1120-1220, and bearing the seal of the National Sanitation Foundation. Use Schedule 40 polyvinyl chloride, type I-II fittings bearing the seal of the National Sanitation Foundation, and complying with ASTM D2466 for pressure line and also for any water lines under asphalt paving. Use Sch 40 PVC for lateral lines in planting areas unless stronger pipe is specified in the irrigation legend. For joining, use a solvent complying with ASTM D2466 and recommended by the manufacturer of the approved pipe. Pipe is to be continuously and permanently marked with the manufacturer's name, pipe size, schedule number, type of material, and code number.
B. Galvanized steel pipe is to comply with ASTM A120 or ASTM A53, galvanized, Schedule 40, threaded, coupled, and hot-dip galvanized. Use 150 lb. rated galvanized malleable iron, banded pattern fittings. Wrap all galvanized pipe below grade with 2" wide, 10 mil. plastic wrapping tape (#50 Scotch wrap or equal).
C. Drip tubing is to be as noted on plans. Use compression fittings.

2.2 CONTROL WIRE
A. Use type UF direct burial wire minimum size #14, copper, U.L. approved for irrigation control use for runs of 1000 feet or less. For longer runs consult with Landscape Architect. Use 3M DBY Direct Bury Wire Splice Kits or dry splice type wire connectors at splices. No underground splices will be allowed without a splice box.

2.3 OTHER MATERIALS
A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3 – EXECUTION

3.1 SURFACE CONDITIONS
A. Examine the areas and conditions under which the work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.2 EXCAVATION
A. Trenches may be excavated either by hand or machine, but shall not be wider than is necessary to lay the pipes. Care should be taken to avoid damage to existing water lines, utility lines, and roots of plants to be saved.
B. Minimum depth of cover for buried pipelines shall be: 1. Eighteen (18) inches for mainline pressure piping. 2. Eighteen (18) inches for 24 volt wiring from controllers to remote control valves. 3. Twelve (12) inches for lateral distribution lines. 4. Twenty-four (24) inches, minimum cover, with 6" sand bedding and 6" sand cover for any pipe or wire sleeve under A.C. paving.
C. Under existing paving, piping may be installed by jacking, boring, or hydraulic driving except that no hydraulic driving will be permitted under asphalt concrete pavement (most pipes and sleeves under A.C. paving are to be installed prior to installation of the paving). Where cutting or breaking of existing pavement is necessary, secure permission from the Architect before cutting or breaking the pavement, and then make necessary repairs and replacements to the approval of the Architect and at no additional cost to the Owner.

3.3 INSTALLATION OF PIPE
A. Handling and assembly of pipe, fittings, and accessories shall be by skilled tradesmen using methods and tools approved by the manufacturers of the pipe and equipment and exercising care to prevent damage to the materials or equipment.
B. Metal pipe threads shall be sound, clean cut, and cored to full inside diameter. Threaded joints shall be made up with the best quality pure joint compound carefully and smoothly placed on the male threads only throughout the system.
C. On plastic threaded connections use the sealer recommended by the manufacturer of the plastic valve or fitting. Do not use paste sealer products on plastic valves. Tighten plastic threaded connections with light wrench pressure only.
D. Connections and controls shall be functionally as shown on the drawings, but physically shall be the most direct and convenient method while imposing the least hydraulic friction. Install lines in planting areas whenever possible.
E. Thread male PVC connections into metal female connections rather than the opposite.
F. Interior of pipe fittings, and accessories shall be kept clean at all times, and all openings in piping runs shall be closed at the end of each day's work or otherwise as necessary to prevent the entry of foreign materials. Bending of galvanized steel pipe will not be permitted. Install plastic pipe with the markings turned up to be seen from above until the pipe is buried. "Snake" the pipe in the trenches so that there will be a small amount of excess length in the line to compensate for contraction and expansion of the pipe.
G. Place backfill in 6" layers such that there will be no settling. The top 6" of soil is to be the top soil and soil amendment mixture. All backfill shall be free of rock and debris. Test pipe for leaks prior to backfilling joints. Obtain approval of the owner's representative before backfilling joints.

3.4 INSTALLATION OF EQUIPMENT
A. Flush lines clean prior to installation of valves, sprinkler heads, or hose bibs. Install valves, sprinkler heads, controllers, backflow preventors, hose bibs, and other equipment as per the Irrigation Plan and details.

3.5 ELECTRICAL WORK
A. The line voltage work shall consist of connecting the controller to the nearest available 115 volt supply. The line voltage connection shall be in conduit, in accordance with local electrical code. Controllers mounted inside buildings can be plugged into outlets. The low voltage work shall include all necessary wiring from the controller to the automatic sprinkler valves, installed in accordance with the manufacturer's recommendations. A loop of extra wire, a minimum of eighteen (18) inches long shall be provided at each automatic valve. Appropriate expansion loops shall be provided throughout the system to assure that no wiring will be under stress.
B. All splices and connections on the 24 volt system shall be made using 3M DBY Direct Bury Splice Kits, Rain Bird Pentite connector, or equal.
C. Wiring, wherever possible, shall be placed in the same trench with, and alongside of, the irrigation main water line. Tape and bundle wire every ten feet. All wiring placed under paving shall be put in adequately sized Sch 40 PVC pipe sleeves prior to paving operations.
D. Wire for 24 volt control lines shall be size #14 UF direct burial irrigation wire. Unless noted differently on the plan, common grounds shall be white, size #14 UF direct burial wire. For wire runs over 1000 feet consult with Landscape Architect for wire size. Under no circumstances, on multiple controller installations, will a single common ground, shared by each controller, be permitted. Each controller shall have its own separate common ground wire.

3.6 TESTING
A. All testing shall be done in the presence of the Owner's Representative. Center-load all pipelines with clean soil approximately every four feet to resist hydraulic pressures, but leave fittings exposed for inspection. Piping under paving shall be tested before paving is in place. Install a 0 to 160 P.S.I. gauge on lines to be tested. All valves shown on Plans shall be in place and shall be in the closed position. Mains shall be tested at 100 P.S.I., and laterals at 65 P.S.I. If available static water pressure is under 100 P.S.I., provide suitable pump for tests. Fill pipelines slowly to avoid pipe damage, and bleed all air from lines as they are being filled. After closing valve at water source, mains shall hold 100 P.S.I. gauge pressure for two hours with no leaks. Laterals are expected to have minor seepage at multiple swing joint assemblies. Major leaks are not acceptable. Laterals shall be tested for one hour at 65 P.S.I. solely to reveal any piping or assembly flaws. The laterals are not expected to hold gauge pressure. For testing laterals, cap risers or turn adjusting screws on nozzles to the "off" position, as appropriate. Repair any flaws discovered in mains or laterals, then retest in same fashion as outlined in presence of the Landscape Architect until all lines have been approved. Provide required testing equipment and personnel.

3.7 SYSTEM ADJUSTMENT
A. The entire sprinkler system shall be properly adjusted before final acceptance. Adjustments shall include but not necessarily be limited to: (1) Adjustment of arc and distance control devices on sprinklers, including changing nozzle sizes if necessary to assure proper coverage of planted areas. (2) Relocation or addition of sprinkler heads if necessary to properly cover planted areas, without causing excessive water to be thrown onto building, walks, paving, etc. (3) Throttling of automatic valves as necessary to operate sprinklers at manufacturer's recommended pressure. (4) Adjustment and testing of all automatic control devices to assure their proper function, both automatically and manually. (5) Installation of pop-up heads anywhere there is a chance of pedestrians or vehicles hitting heads even if pop-ups are not shown on the plan. (6) Installation of check valves to keep sprinkler head drainage from eroding landscape areas, wasting water, or creating soggy spots in the landscaping.

3.8 AS-BUILT DRAWINGS AND INSTRUCTION
A. Regularly update a print of the system noting any changes which are made by dimensioning features below grade from surface features with at least two dimensions. Prior to final approval, give the Owner 2 copies of clean blueprints marked to show changes during construction. The most important features to mark on the plan are valves, pressure lines, wires, and hose bibs.
B. After the system has been completed, inspected, and approved, instruct the Owner's maintenance personnel in the operation and maintenance of the system. Give the Owner completed warranty cards for the irrigation equipment and keys to controllers and hose bibs.

SOIL PREPARATION AND PLANTING

PART 1 – GENERAL

1.1 DESCRIPTION
A. The work includes, but is not necessarily limited to, the furnishing of all materials, equipment, and labor required to do the installation and complete placement of topsoil, fine grading, soil conditioning, and planting.

1.2 QUALITY ASSURANCE
A. Plant Identification and Quality
1. Plants are to be true to name, with one of each bundle or lot tagged with the name of the plants in accordance with standards of practice of the American Association of Nurserymen. In all cases, botanical names take precedence over common names.
2. Plants shall be vigorous, of normal growth habit, free of diseases, insects, eggs, larvae, excessive abrasions, sun scalds, or other objectionable disfigurements, and shall conform to the standards as outlined by the California Association of Nurserymen. Tree trunks shall be sturdy and well "hardened off". All plants shall have normal well developed branch system, and vigorous, fibrous root systems which are not root bound. Ground cover plants (rooted cuttings) shall have well developed root systems and be kept moist prior to and during installation. Plants shall be nursery grown and of size indicated on Drawings. All plants not conforming to those requirements will be considered defective, removed from the site and replaced with acceptable new plants at the Contractor's expense.
3. Sod shall have a well developed root system. Yellowing, brown, diseased, dried, or pest infested sod shall be rejected. Sod is to be cleanly mowed within 72 hours of delivery to the site. Sod is to be delivered to the site within 24 hours after being harvested and installed immediately after being delivered. Sod shall not be stored on the site overnight. Any sod delivered to the site that cannot be installed the same day shall be removed and not used on the site.
4. Ground cover is to have well developed roots and foliage. It is to be grown in and delivered to the site in flats.

1.3 SUBMITTALS
This section is not needed for this project

1.4 GUARANTEE
A. Trees shall be guaranteed 1 year – all other plant material 120 days following final acceptance. Any plant material needing replacement because of weakness or probability of dying will be replaced with material of similar type and size to that of the surrounding area. The replacement plants will have the same guarantee as the original plants or trees, starting the day of their replacement. The Contractor is not responsible for losses due to vandalism if he has taken reasonable measures for protection of the plants.

1.5 PRODUCT HANDLING
A. Protect plants before and during installation, maintaining them in a healthy condition. Application(s) of anti-dessicant may be required to minimize damage. The Contractor is responsible for vandalism, theft, or damage to plant material until commencement of the maintenance period.

1.6 REVIEWS
A. Request the following reviews by the Owner's Representative at least three (3) days in advance (in writing): (1) Rough grading (of landscape area) (2) Soil test (3) Verification of incorporation depths (4) Finish grade (5) Plant material quality approval (6) Plant material layout (7) Plant pit sizes (prior to planting plants) (8) Preliminary inspection (9) Final inspection (5 day advance notice required)

PART 2 – PRODUCTS

2.1 TOPSOIL
A. Native topsoil or import landscape soil

2.2 NATIVE TOPSOIL
A. Native soil on site without admixture of subsoil, free from rocks over two cubic inches, debris, and other deleterious material. Native topsoil is to be stripped, stockpiled, and reinstalled.

2.3 IMPORT LANDSCAPE SOIL
A. Import landscape soil must be tested and meet the following specification:
1. TEXTURE:
Sandy loam to loam
2. GRADING:

SEIVE SIZE	PERCENT PASSING SIEVE
25.4 mm (1")	95 – 100
9.51 mm (3/8")	85 – 100
53 Micron (270 mesh)	10 – 30

3. CHEMISTRY – SUITABILITY CONSIDERATIONS:
a. Salinity: Saturation Extract Conductivity (ECe x 103 @ 25 degree C.) Less than 4.0
b. Sodium: Sodium Adsorption Ration (SAR) Less than 9.0
c. Boron: Saturation Extract Concentration Less than 1.0 PPM
d. Reaction: pH of Saturated Paste: 5.5 – 7.5
e. Lime: less than 3% by weight

4. PESTS:
a. The population of any single species of plant pathogenic nematode: fewer than 500 per pint of soil.
5. ORGANIC MATTER
a. Soil is to have 5% to 10% organic matter at below 18 inches in depth.
Soil is to have less than 30% organic matter at 0 to 18 inches in depth
Organic matter to be less than 1" dia. Do not use mushroom compost.
No noxious weeds are allowed.
6. FERTILITY CONSIDERATIONS:
a. Soil is to contain sufficient quantities of available nitrogen, phosphorous, potassium, calcium, and magnesium to support normal plant growth. In the event of nutrient inadequacies, provisions shall be made to add required materials to overcome inadequacies prior to planting.
7. COMPACTION
a. Compact the soil enough so it doesn't settle more when walked on and not significantly over time where the flow of drainage will be affected or soil needs to be added. Don't over compact or work soil when it has too much moisture.
Dig bottom layer of import soil into existing soil. Compact in 6 inch lifts.

2.4 ORGANIC SOIL AMENDMENT
A. Redwood sawdust, 0-1/4" in diameter, that is nitrogen stabilized by the supplier, and contains a wetting agent. Also see note on planting plan

2.5 ORGANIC MULCH
A. See Planting Plan

2.6 PLANTER SOIL MIX
A. See Planting Plan and Details.

2.7 BACKFILL FOR PLANT PITS
A. See Shrub and Tree Details on sheet L3

2.8 FERTILIZER
A. Follow recommendation of Soil Fertility Test done by a lab such as Sunland Analytical (916) 852-8557
11419 Sunrise Gold Circle #10, Rancho Cordova, CA 95742

2.9 PLANT MATERIAL SUBSTITUTES
A. Substitutes will not be permitted except when proof is submitted that plants specified are not available and then only upon approval of the Landscape Architect and Owner.

2.10 OTHER MATERIALS
A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Landscape Architect.

PART 3 – EXECUTION

3.1 SURFACE CONDITIONS
A. Examine the areas and conditions under which the work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.
B. Weed and Debris Removal – All ground areas to be planted shall be cleaned of all weeds and debris prior to any soil preparation or grading work. Weeds and debris shall be disposed of off the site.
C. Contaminated Soil – Do not perform any soil preparation work in areas where soil is contaminated with cement, plaster, paint or other construction debris. Bring such areas to the attention of the Owner's Representative and do not proceed until the contaminated soil is removed and replaced.
D. Moisture Content – Soil shall not be worked when moisture content is so great that excessive compaction will occur, nor when it is so dry that dust will form in the air or that clods will not break readily. Water shall be applied, if necessary, to bring soil to an optimum moisture content for tilling and planting.

3.2 ROUGH GRADING AND TOPSOIL PLACEMENT
A. Request a review by the Owner's Representative to verify specified limits and grades of work completed to date before starting soil preparation work. Place topsoil as required to obtain an 12" minimum depth of topsoil or as noted otherwise on the Plans. (Topsoil may already exist in the planting areas). Integrate topsoil layer into subsoil or existing compacted topsoil layer by ripping. Complete rough grading as necessary to round top and toe of all slopes, providing naturalized contouring to integrate newly graded area with the existing topography. Verify that rough grading is completed in accordance with civil engineering drawings and/or any landscape grading drawings. Break through any compacted layers of subgrade material (sometimes left from building or paving pad compaction) that will not allow water in planting areas to percolate through, causing a boggy, over saturated soil condition. You may have to use a backhoe or rotohammers to break up and turn soil to a minimum depth of 12". If proposed planters are in areas of existing paving or baserock, remove at least 12" of material and bring in top soil up to grade required by grading plan. Rough grading in planting areas is to be such that when amendment is incorporated and the mulch is installed, the grade will be +- 1" to finish grade.
B. Soil Preparation: (1) Distribute soil (organic) amendment and fertilizer in the amounts recommended by the soils lab over all planting areas unless noted otherwise on the Plans. (2) Rip and/or till the amendment and fertilizer into the top 6" to 8" of soil until they are thoroughly mixed in. Hand work areas inaccessible to mechanical equipment. (3) Moisten to uniform depth for settlement and regrade to establish elevations and slopes indicated on Drawings.

3.3 FINISH GRADING
A. The Contractor shall make himself familiar with the site and grading plans and do finished grading in conformance with said Plans and as herein specified.
B. Grades not otherwise indicated shall be uniform levels or slopes between points where elevations are given or between points established by walks, paving, curbs, or catch basins. Finish grades shall be smooth, even, and on a uniform plane with no abrupt changes of surface. Minor adjustments of finish grades shall be made at the direction of the Landscape Architect, if required.
C. All grades shall provide for natural runoff of water without low spots or pockets. Flowline grades shall be accurately set and shall be not less than 2% gradient wherever possible. Grades shall slope away from building foundations unless otherwise noted on Plans. All finish grades (top of mulch) are 1" below finish grade of walks, pavements, curbs, and valve boxes unless otherwise noted.

3.5 MULCHING
A. Recultivate soils compacted by planting or other operations and smooth the soil areas prior to applying mulch. Mulch all planting areas to a depth as noted on plans. This depth should be as per the plans even after being settled and stepped on 30 days after installation. Water lightly to settle mulch. Do not bury ground cover with mulch. Place and settle mulch in such a way that it does not get washed onto paving or block drain swales or inlets.

3.6 WEED CONTROL
A. The Contractor is responsible for pre-emergent weed control. Follow the manufacturer's directions. The Contractor is responsible for the replacement of any plants (other than weeds) that are hurt or killed due to the misuse of weed control products or use of the wrong product. Clay soils can increase the affect of certain pre-emergents. Adjust the application rate accordingly. Some owners may prefer hand weeding to chemical weed control although it is usually more expensive.

3.7 MAINTENANCE
A. Maintenance shall begin immediately after each plant is installed.
B. Maintenance will include:
1. Continuous operations of watering, weeding, cultivating, fertilizing, spraying, insect, pest, fungus, and rodent control, and any other operations to assure good normal growth.
2. Fertilizing: In addition to fertilizing of trees, shrubs and ground covers, herein specified, furnish and apply any additional fertilizers necessary to maintain plantings in a healthy, green vigorous growing condition during the maintenance period.
3. Weeding, Cultivating and Clean Up: Planting areas shall be kept neat and free from debris at all times and shall be cultivated and weeded at no more than 10-day intervals.
4. Insect, Pest and Disease Control: Insects and diseases shall be controlled by the use of approved insecticides and fungicides. Moles, gophers, and other rodents shall be controlled by traps, approved pellets inserted by probe gun, or other approved means.
5. Protection: Work under this Section shall include complete responsibility for maintaining adequate protection for all areas. Any damaged areas shall be repaired at no additional expense to the Owner.
6. Replacements: Immediately replace any plant materials that die or are damaged. Replacements shall be made to the Specifications as required for original plantings.
7. Hand Watering: Even when planting areas are watered with automatic irrigation, the soil surrounding the plant pits can be moist while the sawdust/sand root ball is dry. This can cause the plants to deteriorate or not grow (even during the winter). The plants will do best (especially during the hot season) if they are hand watered deeply until their roots grow out into the surrounding soil.
8. Follow recommendations of Soil Management Report on sheet L7

3.8 PRELIMINARY INSPECTION
A. As soon as all the planting is installed, the Contractor will request the Owner's Representative (in writing) to make a preliminary inspection. The 30 calendar day maintenance period will start when the work is approved. Replacement and/or repairs may be required for approval. The Contractor is to notify the Owner and the Owner's Representative in writing when the 30 day maintenance period begins.

3.9 FINAL INSPECTION
A. At least 5 days prior to the anticipated end of the maintenance period, the Contractor shall submit a written request for final inspection. The planting areas shall be weeded, neat and clean. The work shall be accepted by the Owner exclusive of the plant materials upon written approval of the work by the Owner's Representative.

Revision
1 3/2/20
2 5/26/20

GREGORY LEWIS LANDSCAPE ARCHITECT
3[illegible] Park Way Santa Cruz CA [illegible] 831 [illegible]

LICENSED LANDSCAPE ARCHITECT
GREGORY LEWIS
No. 2176
Greg Lewis
STATE OF CALIFORNIA

Dexter Villa
20 Dexter Avenue, Redwood City, CA

Date 10/7/19
Scale As Noted
Drawn Greg
Job
Sheet L4
of 5

Landscape Specifications

County of San Mateo - Planning and Building Department

ATTACHMENT D

Kielty Arborist Services LLC

Certified Arborist WE#0476A
P.O. Box 6187
San Mateo, CA 94403
650-515-9783

November 18, 2019

Green Global Inc.
Attn: Ying Wang
greenglob@sbcglobal.net

Site: 20 Dexter Avenue, Redwood City, CA

Dear Ying Wang,

As requested on Tuesday, October 1st, 2019, I visited the above site to inspect and comment on the trees. Four new homes are proposed for this site, and your concern as to the future health and safety of the trees on site has prompted this visit. A tree protection plan will also be included in this report. Tentative site plan C3.0 was reviewed for writing this report.

Method:
All inspections were made from the ground; the trees were not climbed for this inspection. The trees in question were located on an existing topography map provided by you. The trees were then measured for diameter at 54 inches above ground level (DBH or diameter at breast height). The trees were given a condition rating for form and vitality. The trees condition ratings are based on 50 percent vitality and 50 percent form, using the following scale.

1	-	29	Very Poor
30	-	49	Poor
50	-	69	Fair
70	-	89	Good
90	-	100	Excellent

The height of the trees was measured using a Nikon Forestry 550 Hypsometer. The spread was paced off. Comments and recommendations for future maintenance are provided.

Survey Key:
DBH- Diameter at breast height (54 inches above grade)
CON- Condition rating
HT/SP- Tree height and spread
S-Indicates significant tree (protected) by County Ordinance
R-Indicates proposed tree removal
*-Indicates tree located on neighbor's property

Survey:

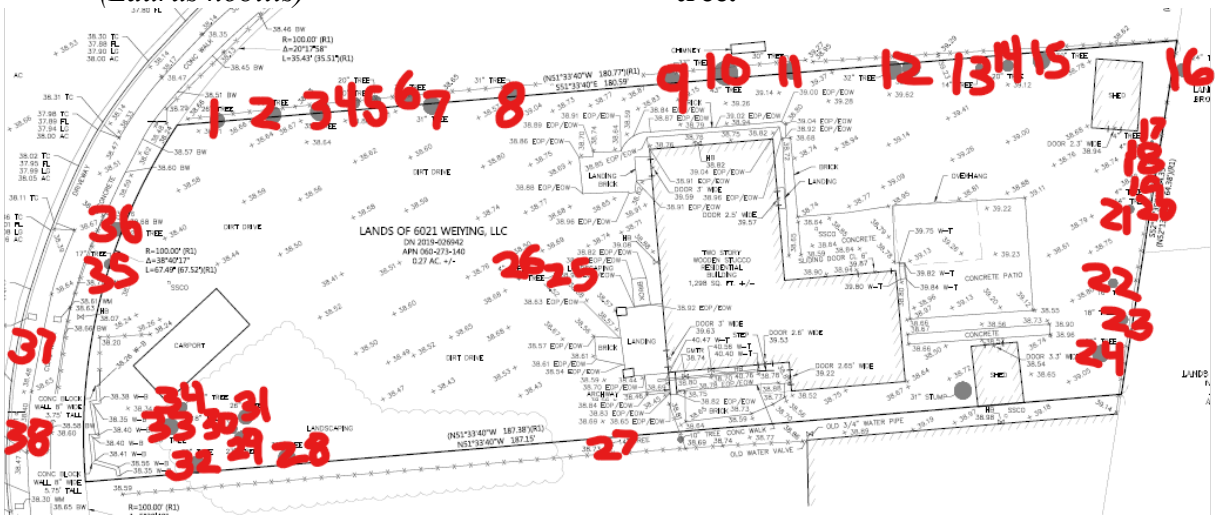
Tree#	Species	DBH	CON	HT/SP	Comments
1**S**	Redwood *(Sequoia sempervirens)*	25.6	45	100/25	Poor vigor, poor form, codominant at top of tree, drought stressed. **Shared tree**
2**S**	Redwood *(Sequoia sempervirens)*	32.5	30	100/25	Poor vigor, poor form, in decline, abundance of dead wood. **Shared tree**
3**S**	Redwood *(Sequoia sempervirens)*	30.0	45	100/25	Fair to poor vigor, poor form, codominant at top of canopy, drought stressed. **Shared tree**
4***S**	Redwood *(Sequoia sempervirens)*	20.0	50	90/20	Fair vigor, fair form, drought stressed, suppressed.
5***S**	Redwood *(Sequoia sempervirens)*	19.3	50	90/20	Fair vigor, fair form, drought stressed, suppressed.
6**S**	Redwood *(Sequoia sempervirens)*	30.0	50	100/25	Fair vigor, fair form, drought stressed. **Shared tree**
7**S**	Redwood *(Sequoia sempervirens)*	29.2	50	100/25	Fair vigor, fair form, drought stressed. **Shared tree**
8**S**	Redwood *(Sequoia sempervirens)*	33.3	50	100/25	Fair vigor, fair form, drought stressed. **Shared tree**
9**S**	Redwood *(Sequoia sempervirens)*	33.0	55	110/25	Fair vigor, fair form, poor location, 6 feet from neighbor's home, and close to existing home. **Shared tree**
10**S**	Redwood *(Sequoia sempervirens)*	43.0	60	120/30	Fair vigor, fair form, poor location 4 feet from neighbor's home, and close to existing home. **Shared tree**
11**S**	Redwood *(Sequoia sempervirens)*	25.4	50	100/25	Fair vigor, fair form, poor location, drought stressed, 6 feet from neighbor's home. **Shared tree**
12**S**	Redwood *(Sequoia sempervirens)*	32-32-30	50	100/30	Fair vigor, poor form, multi leader at grade, 8 feet from neighbor's home. **Shared tree**
13	Black acacia *(Acacia melanoxylon)*	9.8	40	45/15	Fair vigor, poor form, invasive, suppressed, no room for vertical growth.
14**S**	Coast live oak *(Quercus agrifolia)*	13.6	65	50/30	Good vigor, fair form, leans into property.

Survey:

Tree#	Species	DBH	CON	HT/SP	Comments
15	Holly leaf cherry *(Prunus ilicifolia)*	5.7-8.0	45	30/20	Fair vigor, poor form, suppressed, leans into property.
16***S**	Pepper *(Schinus molle)*	24est	60	40/30	Fair vigor, fair form, limited visual inspection, 6 feet from property line.
17	Flowering plum *(Prunus cerasifera)*	4.3	45	20/12	Poor vigor, poor form, suppressed, in decline.
18	Flowering plum *(Prunus cerasifera)*	2.5	30	12/6	Poor vigor, poor form, suppressed, in decline.
19	Flowering plum *(Prunus cerasifera)*	3.5-3.0	30	14/8	Poor vigor, poor form, suppressed, in decline.
20	Flowering plum *(Prunus cerasifera)*	2.0	30	8/5	Poor vigor, poor form, suppressed, in decline.
21	Buckeye *(Aesculus californica)*	10.8	50	35/30	Fair vigor, poor form, suppressed, leans.
22**S**	Black locust *(Robinia pseudoacacia)*	14.0	50	45/30	Fair vigor, fair form, poor species, suppressed.
23**S**	Black locust *(Robinia pseudoacacia)*	14.2	50	50/30	Fair vigor, fair form, poor species, suppressed.
24**S**	Coast live oak *(Quercus agrifolia)*	26.5	80	50/30	Good vigor, fair form, heavy into property.
25	Yucca *(Yucca gloriosa)*	4.0	50	10/4	Good vigor, fair form.
26	Mulberry *(Morus alba)*	3.3	80	20/10	Good vigor, good form, young movable tree.
27***S**	Pittosporum *(Pittosporum tenuifolium)*	14.0	30	25/15	Poor vigor, fair form, in decline.
28**S**	Redwood *(Sequoia sempervirens)*	30.0	30	70/15	Poor vigor, poor form, dead top.
29**S**	Redwood *(Sequoia sempervirens)*	27.0	60	80/15	Fair vigor, fair form, drought stressed.

Survey:

Tree#	Species	DBH	CON	HT/SP	Comments
30S	Redwood *(Sequoia sempervirens)*	18.0	60	80/15	Fair vigor, fair form, drought stressed.
31S	Redwood *(Sequoia sempervirens)*	26.0	60	80/15	Fair vigor, fair form, drought stressed.
32S	Redwood *(Sequoia sempervirens)*	30.0	60	85/15	Fair vigor, fair form, drought stressed.
33S	Redwood *(Sequoia sempervirens)*	30.0	60	85/15	Fair vigor, fair form, drought stressed.
34	Bottle brush *(Callistemon citrinus)*	7.5	50	50/30	Fair vigor, poor form, suppressed.
35S	Coast live oak *(Quercus agrifolia)*	16.2	80	50/35	Good vigor, fair form, leans into street. **Street tree**
36S	Coast live oak *(Quercus agrifolia)*	20.2	80	50/35	Good vigor, fair form, leans into street. **Street tree**
37S	Sweet bay *(Laurus nobilis)*	2.0	65	10/5	Fair vigor, fair form, recently planted **street tree.**
38S	Sweet bay *(Laurus nobilis)*	2.0	65	10/5	Fair vigor, fair form, recently planted **street tree.**



Showing tree locations

Summary of protected trees:
The trees surveyed are a mix of imported and native trees. All protected trees to be retained will require tree protection fencing throughout the entire length of the construction process. Along the existing driveway and the property line to the north are many large redwood trees. The majority of the large redwood trees are located on the property line and are shared trees with the adjacent neighbor. Redwood trees #1-8 are located adjacent to the existing driveway on site. The strain of vehicles passing over the root zones of the trees has likely stressed the trees through soil compaction. Redwood trees #1-8 look more stressed than the rest of the redwood trees on site as they are near the existing driveway. Redwood trees #1, 2 and 3 are in poor condition likely due to severe soil compaction so close to the tree trunks. Also, the redwood trees on site are under drought stress as a lack of vigor was observed within the tree canopies.

Showing the drought stressed tops of redwood trees #1-3

Redwood trees #9-12 are located very close to the neighbor's home foundation. Large redwood tree #10 is only 4 feet from the neighbor's home. These 4 trees are at high risk of damaging the neighbor's foundation. It is recommended to consult with the neighbor about the redwood trees and any possible foundation damage already existing. This may warrant removal of the redwood trees in close proximity to the neighbor's home (with neighbor's approval). All of the redwood trees need to be irrigated and deep water fertilized to help improve their health.

Showing redwood trees in close proximity to the neighbor's home

Coast live oak tree #14 is in fair condition. The tree is growing heavily into the property as a result of growing in suppressed conditions caused by the redwood trees. This tree is recommended to be pruned using crown reduction cuts in the direction of the tree's lean. Every 3-5 years the tree should be re-inspected for any needed pruning maintenance.

Pepper tree #16 is a protected tree located on the neighbor's property to the east. This tree will require tree protection fencing throughout the entire length of the proposed construction.

Black locust trees #22 and #23 are in fair condition. This species is a poor species as they tend to lose limbs due to naturally formed poor codominant unions. The two locust trees are suppressed.

Coast live oak tree #24 is in good condition. This tree has the highest condition rating on the property. The tree grows heavily into the property. This tree is recommended to be pruned using crown reduction cuts where heavy. Every 3-5 years the tree should be re-inspected for any needed pruning maintenance.

Neighbor's pittosporum tree #27 is in poor condition. This tree is expected to decline regardless of any mitigation measures or the proposed construction.

Redwood trees #28-33 are located in a small grove at the south west front corner of the property. Redwood tree #28 is in poor condition. The top of the tree is dead and the tree is in decline. Redwood tree #28 is proposed for removal as it is not expected to improve with any mitigation measures applied. The remaining redwood trees are in fair condition. Supplemental irrigation will need to be provided to these trees. It is recommended to deep water fertilize the redwood trees in the spring of 2020.

Showing dead top of redwood tree #28 that is proposed for removal

Oak trees #35 and #35 are in good condition. Both trees lean into the street as a result of the suppressed conditions caused by the redwood trees. All future landscaping near the retained oak trees will need to maintain a dry area (no irrigation) at least 15 feet from the two oak trees. Both oak trees are street trees located outside the boundary line.

Sweet bay trees #37 and #38 are street trees. These trees are both recently planted street trees and in fair condition. All street trees are required to be protected in the County of San Mateo.

Protected trees proposed for removal:
Redwood tree #28 is in poor condition. The top of the tree is dead, and the tree is in decline. Redwood tree #28 is proposed for removal as it is not expected to improve with any mitigation measures applied. Also, the proposed hardscape work in close proximity to the tree is expected to have a high impact on the already declining tree.

Trees #7, and #12-15 are all in very close proximity to the proposed driveway for the site. Due to the elevated root crowns, tree removal may be needed to perform the necessary driveway construction.

Impacts/Recommendations:
The proposed driveway on site is located in the same place as the existing driveway but is to be extended all the way to the back of the property. The existing driveway consist of gravel and bare soil and has done little to discourage root growth into the property. The proposed driveway is recommended to be built on top of existing grade. Only a maximum excavation depth of 6 inches will be allowed in this area. The actual concrete driveway slab should be on top of the existing grade. A layer of Biaxial Geogrid (Tensar BX-1100 or equivalent) should be placed at the bottom of the 6 inches of excavation. The geogrid will help to improve filtration, reduce base thickness needed and reduce the compaction of underlying parent soil to 85%. Any roots within the base section of the driveway will need to be retained by packing base material around the roots. The Project Arborist will need to be on site during the proposed driveway work. All excavation for the proposed driveway will need to be done by hand in combination with an air knife. All exposed roots during the excavation process will need to be covered with wetted down burlap and kept moist to avoid root desiccation. Any roots that may need to be cut during the driveway work must first be shown to the Project Arborist. Impacts from the driveway if the above recommendations are followed are expected to be minor to moderate. It is recommended to deep water fertilize the trees in spring of 2020. The trees should also be receiving supplemental irrigation weekly from the neighbor's property and the subject property. Irrigation should be supplied to the redwood trees once a week during the dry season until the top foot of soil is saturated. The trees near the proposed driveway will need to be protected by wrapping the tree trunks with straw wattle to a height of 8 feet. Orange plastic fencing shall then be wrapped around the straw wattle. During construction of the homes on site, a landscape barrier must be installed between the trees and the proposed homes on site if the driveway work is to take place at the end of the project.

All utility line work has been placed as far from the trees as possible. All excavation for utility work when within 20 feet of a protected tree to be retained shall be done manually by hand in combination with an air knife. A mini jackhammer with a clay spade attachment can also be used to help dig around tree roots. The lines shall be placed underneath or besides roots when possible in order to reduce the need to cut existing roots. Exposed roots during this process will need to be covered in burlap and kept moist by wetting down the burlap multiple times a day. The Project Arborist will need to be on site during the utility line work. Any roots that need to be cut must first be shown to the Project Arborist. Roots must be cut using a hand saw or

loppers. Impacts are expected to be minor. The recommended irrigation and fertilizing of the redwood trees will act as mitigation for the minor impacts. Oak trees #35 and #36 may need to be irrigated if roots are traumatized during this work.

All walkway hardscapes must be constructed as close as possible to on top of grade. A maximum of 6 inches of excavation will be allowed where pathways are proposed near trees on site.

Energy dissipater outfalls are proposed near redwood trees #29-34 and oak tree #24. All excavation needed for this work will need to take place by hand. Where roots are encountered, they should be cleanly cut under the Project Arborist supervision. Impacts are expected to be minor. The following tree protection plan will help to insure the future health of the retained trees on site.

Tree Protection Plan:
Tree protection zones should be established and maintained throughout the entire length of the project. All tree protection measures, recommended inspections, irrigation, and construction scheduling shall be implemented in full by the owner and contractor. Fencing for the protection zones should be 6-foot-tall metal chain link type supported by 2-inch diameter metal poles pounded into the ground to a depth of no less than 2 feet. The support poles should be spaced no more than 10 feet apart on center. The location for the protection fencing should be placed at a minimum distance equal to the trees driplines, and at a maximum distance of 10 times the trees diameters where possible. Where tree protection fencing cannot be placed at the dripline because of the approved proposed work, tree protection should be placed as close as possible to the proposed work while still allowing room for construction to safely continue. Signs should be placed on fencing signifying “Tree Protection Zone - Keep Out”. No materials or equipment should be stored or cleaned inside the tree protection zones. If tree protection zones need to be reduced for access or any other reason than a landscape barrier shall be installed where tree protection does not extend out to the tree driplines. Trees near the existing and proposed driveway will need to be protected by wrapping the tree trunks with straw wattle to a height of 8 feet. Orange plastic fencing shall then be wrapped around the straw wattle. During construction of the homes on site, a landscape barrier must be installed between the trees and the proposed homes on site if the driveway work is to take place at the end of the project.

Landscape Barrier
Where tree protection does not cover the entire root zone of the trees (at canopy spread), or when a smaller tree protection zone is needed for access, a landscape buffer consisting of wood chips spread to a depth of six inches with plywood or steel plates placed on top will be placed where foot traffic is expected to be heavy. The landscape buffer will help to reduce compaction to the unprotected root zone.

Tree Pruning
During construction any trimming will be supervised by the site arborist and must stay underneath 25% of the tree’s total foliage. At this time no pruning is proposed. All pruning shall be done by a licensed tree care provider.

Root Cutting
Any roots to be cut should be monitored and documented. Large roots or large masses of roots to be cut should be inspected by the site arborist. The site arborist may recommend irrigation and a tree monitoring program at that time. Cut all roots clean with a saw or loppers. Roots to be left exposed for a period of time should be covered with layers of burlap and kept moist. All roots measuring 1.5 inches in diameter or larger to be cut, must first be shown to the Project Arborist.

Trenching and Excavation
Trenching and excavation shall strive to stay outside of the tree protection zones. If not possible trenching for any reason, should be hand dug when beneath the dripline of desired trees. Hand digging and careful placement of pipes below or beside protected roots will dramatically reduce root loss, thus reducing trauma to desired trees. Trenches should be back filled as soon as possible using native materials and compacted to near original levels. Trenches to be left open with exposed roots shall be covered with burlap and kept moist. Plywood laid over the trench will help to protect roots below.

Irrigation
Normal irrigation should be maintained throughout the entire length of the project for the redwood trees. Irrigation should consist of surface flooding, with enough water to wet the entire root zone once a week during the dry season. The top foot of soil shall be saturated. The native oak trees shall not be irrigated unless their root zones are traumatized.

Inspections
The site will be inspected after the tree protection measures are installed, and before the start of construction. Monthly inspections are generally required for site such as this. Inspections will be carried out during the first week of each month. The inspections will be documented with inspection letters being provided to the owner and contractor. Other inspections will be carried out on an as needed basis. It is the contractor's responsibility to notify the Project Arborist when construction is to start, and whenever there is to be work performed underneath the canopy of a tree to be retained. Kielty Arborist Services can be reached at 650-515-9783(Kevin), or by email at kkarbor0476@yahoo.com.

Further information about tree protection can be found in the Tree Technical Manual provided by the city of Palo Alto. This information should be kept on site at all times. The information included in this report is believed to be true and based on sound arboricultural principles and practices.
Sincerely, Kevin R. Kielty Certified Arborist WE#0476A
Kevin Kielty

Kielty Arborist Services
P.O. Box 6187
San Mateo, CA 94403
650-515-9783

ARBORIST DISCLOSURE STATEMENT

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like a medicine, cannot be guaranteed.

Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, landlord-tenant matters, etc. Arborists cannot take such issues into account unless complete and accurate information is given to the arborist. The person hiring the arborist accepts full responsibility for authorizing the recommended treatment or remedial measures.

Trees can be managed, but they cannot be controlled. To live near a tree is to accept some degree of risk. The only way to eliminate all risks is to eliminate all trees.

Arborist: Kevin Kielty
Kevin R. Kielty

Date: November 18, 2019

County of San Mateo - Planning and Building Department

ATTACHMENT E

Attachment E

County of San Mateo
Planning and Building Department

In-Lieu Park Fee Worksheet

[This formula is excerpted from Section 7055 of the County's Subdivision Regulations]

This worksheet should be completed for any residential subdivision which contains 50 or fewer lots. For subdivisions with more than 50 lots, the County may require either an in-lieu fee or dedication of land.

1. **For the parcel proposed for subdivision, look up the value of the land on the most recent equalized assessment roll. (Remember you are interested in the land only.)**

   Value of Land = $1,422,900

2. **Determine the size of the subject parcel in acres.**

   Acres of Land = 0.27

3. **Determine the value of the property per acre.**

   a. **Set up a ratio to convert the value of the land given its current size to the value of the land if it were an acre in size.**

Formula: Parcel Size in Acres (From Item 2) / 1 Acre of Land = Value of Subject Parcel (From Item 1) / Value of Land/Acre
Fill Out: 0.27 / 1 Acre = $1,422,900 / Value of Land/Acre

b. Solve for X by cross multiplying.

Formula: Value of Land = Value of the Subject Parcel (From Item 1) / Size of the Subject Parcel in Acres (From Item 2) =
Fill Out: Value of Land = $1,422,900 / 0.27 = $5,270,000

c. Determine the number of persons per subdivision.

Formula:				
Number of New Lots Created*	X	3.10**	=	Number of Persons Per Subdivision
*Example = A 2-lot split would = 1 newly created lot.				
Fill Out:				
3	X	3.10**	=	9.3
**Average number of persons per dwelling unit according to the most recent federal census (2010).				

d. Determine the parkland demand due to the subdivision.

Formula:				
Number of Persons Per Subdivision (From Item 4)	X	0.003*** Acres/Person	=	Parkland Demand
Fill Out:				
9.3	X	0.003*** Acres/Person	=	0.0279
*** Section 7055.1 of the County's Subdivision Ordinance establishes the need for 0.003 acres of parkland property for each person residing in the County.				

e. Determine the parkland in-lieu fee.

Formula:				
Parkland Demand (From Item 5)	X	Value of the Land/Acre (From Item 3.b)	=	Parkland In-Lieu Fee
Fill Out:				
0.0279	X	$5,270,000	=	$147,033