3

PROJECT DESCRIPTION

Note that **Figures 3.1 through 3.11** are included together at the end of this chapter (pages 3-8 through 3-19).

PROJECT APPLICANT

The Project Applicant is Stanford University.

PROJECT OBJECTIVES

The Town of Portola Valley has identified the following objectives for the Stanford Wedge Housing Project in coordination with the applicant:

- Maximize single-family housing opportunities in an area the Town has studied and identified for housing
- Reduce wildfire risk at the site, increase access for fighting wildfires, and contribute to a more fire resilient community.
- Include sufficient affordable housing to make progress toward the Town's fair share of low-income housing needs under the Housing Element of the Town's General Plan, enable a density bonus, and comply with the Town's inclusionary housing ordinance
- Cluster development closest to existing infrastructure on relatively flat land, in a manner that avoids development of unstable ground, preserves substantial open space and steep slopes, minimizes grading, and fosters a sense of community

LOCATION AND VICINITY OF THE PROJECT

PROJECT SITE AND SURROUNDINGS

The Project site is located at 3530 Alpine Road on a 75.4-acre parcel (APN 077-281-020) that forms a generally triangular shape between Alpine Road, and developments along Westridge Drive, and Minoca Road in Portola Valley, California (**Figure 3.1: Project Site and Vicinity**). The site, known as the Stanford Wedge property, is mostly undeveloped and is covered with grasses, shrubs, and trees. The Alpine Rock Ranch, a horse boarding facility with stables, currently occupies approximately 7.4-acres (10% of the total site area) in the northeastern portion of the Project site.

Elevations within the site range from approximately 323 feet to 678 feet above sea level. The existing Alpine Rock Ranch facility is located on a relatively flat portion of the site along Alpine Road, with steep hillsides to the sides and rear of the property.

Single-family residences are located to the north, west, and south of the Project site. Only the homes to the north along Westridge Drive near Alpine Road are adjacent to the portion of the parcel proposed for residential development. Across Alpine Road to the east is Glenoaks Stables, then Felt Lake approximately 1,300 feet away, and Interstate 280 approximately 3,700 feet away.

SITE ZONING AND LAND USE DESIGNATION

The Town of Portola Valley General Plan designates the Project site as Conservation-Residential, and the site is zoned Residential Estate (R-E). The Project site is subject to the 3.5A residential density combining district, the SD-2 slope-density combining district, and the D-R design review combining district. The Housing Element of the General Plan identified the Stanford Wedge site (Site 40) as one that could accommodate a number of new residences, including affordable housing through the Affiliated Housing Program, and noted that such development would need to be clustered along Alpine Road given the site constraints.

Maximum allowable density at the site is governed by the Municipal Code and the State Density Bonus Law (Government Code section 65915). Municipal Code sections 18.50.040 and 18.50.050(A) impose a slope-density formula that yields 21 lots for the site. Municipal Code sections 17.20.215, 18.04.055 and 18.44.060(H) allow and require inclusionary housing that may take the form of lots transferred to the Town for construction by a third party or, alternatively, that the project subdivider itself may construct the multifamily housing. These provisions increase allowable units to 18 single-family units and 12 multifamily affordable units (30 total units prior to any density bonus). As discussed in more detail under the Affordability and State Density Bonus heading below, the Applicant proposes for 6 of the affordable units (20 percent of the units) to be affordable at the "low income" level, which entitles the Project to a 35 percent affordable housing density bonus, allowing up to 41 units, though only 39 are proposed.

DESCRIPTION OF THE PROJECT

The Project can be considered as four components, residential development in the Residential Development Area, a new looped public trail on the hillside, a new fire access road, and a vegetation management plan. These are described in more detail below.

RESIDENTIAL DEVELOPMENT AREA

The Project Applicant proposes to subdivide the 75.4 acre property into 30 developable lots (**Figure 3.2: Lot and Parcel Plan**) plus a lot for common open space (parcel Y) and a lot left in a natural state (parcel Z).

The 30 developable lots would be located on the 7.4 acre northeastern portion of the Project site currently operated as the Alpine Rock Ranch (approximately 10% of the total site area) and referred to throughout this analysis as the "Residential Development Area".[1] The Residential Development Area would be developed with 27 market-rate single-family residences as part of a planned unit development and 12 affordable multifamily units configured as 3 lots/buildings with 4 units each.

[1] This definition and acreage for the Residential Development Area is used consistently throughout this analysis and is appropriate for the environmental analysis. However, note that some separate planning materials for the Project reference a 10.8 acre area with the same name. The difference is that the 10.8-acre area includes not only the area of disturbance but also includes the wildfire defensible zone and scenic corridor setback from Alpine Road.

Due to the clustering of development onto small lots along a private road with limited available parking, no accessory dwelling units are proposed.

The Project would provide parking in 60 garage/driveway spaces, 24 standard onsite spaces, and 5 accessible onsite spaces, for a total of 89 vehicle parking spaces. The Project would also include common open space areas, including a play area. The existing horse trail along the Project site's Alpine Road frontage would be retained. The remainder of the site would be preserved as natural open space for the life of the Project.

The existing buildings and fencing associated with the horse boarding facility would be demolished and removed as part of the proposed Project. The Project would also include removal of approximately 114 existing trees from the site.

Specific details of the proposed development are included below and shown on **Figure 3.3: Architectural Site Plan**. Streetscape and internal elevations are included as (**Figures 3.4** and **3.5**).

Single-family Units

Parcels 1 through 27 would be developed as a planned unit development consisting of 13 three-bedroom units, 8 four-bedroom units, and 6 three-bedroom duet units, for a total of 27 single-family residences each on their own lot. Duet units are attached on one side to another duet unit (lots 5/6, 13/14, and 22/23).

The single-family residences would be constructed on lots ranging from approximately 3,300 to 4,800 square feet. The units would range from approximately 2,200 square feet to 2,500 square feet in size (inclusive of garage), and each would be two stories high. The single-family residences would have private fenced rear yards and attached one-car garages.

Multifamily Units

Parcels A, B, and C would be developed with three 4-unit buildings and include a total of 12 below market-rate rental units. At least 6 of these units would be set aside for "low-income" households. The parcels would range from approximately 6,200 to 8,300 square feet, and each of the 2-story multifamily buildings would contain 2 studio units (approximately 475 square feet each), one 1-bedroom unit (approximately 600 square feet), and one 2-bedroom unit (approximately 975 square feet). Vehicle parking would be provided via attached one-car garages and uncovered parking spaces primarily located on each lot.

Residential Subdivision Design

Single-family residences and multifamily buildings would be accessed via a new, private loop road that would connect at two access points to Alpine Road. (The current ranch driveway would be removed.) Overall, buildings would be sited close to the private street to minimize grading and pavement. All buildings would be set back a minimum of 75 feet from Alpine Road to help maintain the Alpine Scenic Corridor. All buildings would be set back from the back property line of existing residences along Westridge Drive by at least 33' to afford privacy to existing residences.

The architectural style of the development would be a mix of traditional and modern. Simple gable roof forms, two-story bays, and covered entries would be clad in painted cement fiber siding with wood accents, standing seam metal roofs, and large metal-clad wood windows with narrow trim and crisp detailing. Colors would be muted—gray to gray-blue tones—typically with two colors per building, and gray metal roofs.

The residential design would follow the Town's Municipal Code relative to outdoor lighting by providing dark sky compliant light fixtures and their equivalent throughout the developed area.

New drought-tolerant landscaping would be installed throughout the site, including private garden areas, common open space areas, and bioretention areas. Screening landscaping would also be installed between the developed area and Alpine Road with visually clear areas maintained around intersections with the new loop road (**Figure 3.6: Planting Plan**).

The existing approximately 3.5-foot tall split rail fence would be retained along the existing horse trail fronting Alpine Road with modifications to accommodate site driveways and a connection to the new site trail. Deer fencing (6 feet tall) is proposed around single-family lots for security without obscuring views. Retaining walls are located at the sides and/or back of some single-family lots as necessary to result in generally flat lots. These retaining walls are a maximum of 3 feet high. Tiered retaining walls are located at the back of the multi-family lots that would be a maximum of 4 feet high on the lower tier and 30 inches high on the higher tier. (See **Figure 3.7: Materials and Finishing Plan**).

The proposed residential development would be designed to comply with Wildland Urban Interface materials and construction methods for exterior wildfire exposure and the Town's recently adopted home hardening ordinance, including:

- Roofs of metal or tile
- Protected vents in eaves or cornices with baffles to block embers
- Eaves and soffits protected with ignition-resistant or non-combustible materials
- Dual-paned windows with one pane of tempered glass to reduce the chance of breakage in a fire
- Exterior walls made of ignition resistant building materials, such as fiber cement, wall siding, fire retardant treated wood, stucco, or other approved materials
- Automatic interior sprinkler systems and exterior irrigation systems
- Decks (if provided) would be built with ignition-resistant, non-combustible, or other approved materials

Residences on the north and east sides of the new loop road (those that don't back generally toward Alpine Road) would include a 25-foot fuel management area in their back yards consisting of irrigated, low-fuel landscaping that homeowners would be required to privately maintain. A Zone 2 defensible space fuel management area would be established and maintained within 200 feet of all residences and the interface with wildland areas within the Project boundary. Within this zone, grasses would be mowed, dead plant material would be removed, and space would be maintained between shrubs, larger trees, and other combustible materials. Further out from the residences, shaded fuel breaks may be used to reduce the fuel load in the surrounding area. (**Figure 3.8: Fuel Management and Fire Access Plan**)

The common area fuel management areas would be owned and maintained by the Project homeowner's association. Stanford University would fund maintenance of the natural undeveloped area located further from the residential units and outside the fuel management areas. The homeowner's association or similar mechanism would also be used to fund maintenance of:

- common areas near the residences, including open space/recreational areas, landscaping, and stormwater detention/treatment areas;
- front yards of the residences;
- private internal loop street; and
- private segments of utilities.

Site Amenities

The Project open space areas within the Residential Development Area include visual buffers, fuel management areas, and a more formal common mini-park.

The mini-park would include a play area with swingset, spinner plate, climbing structure, and picnic tables. Vehicle and bicycle parking would be provided adjacent to the common open space and play area.

Affordability and State Density Bonus

The Project Applicant is seeking to provide affordable housing as part of its proposal pursuant to the State Density Bonus Law, which enables eligible applicants to receive (1) a density bonus, (2) incentives and concessions, (3) waivers and reductions of development standards, and (4) reduced parking requirements:

1) Density bonus: The Project Applicant would construct and set aside 6 units (20 %) for low-income households, which allows the Project up to 11 additional units under the 35% density bonus [Government Code 65915(f)(1)]. The Project Applicant is requesting 9 additional units.
2) Incentives and concessions: With the provision of 20% low-income affordable units, the Project is eligible for two incentives or concessions. The Project Applicant is requesting to reduce the minimum parcel sizes from 20,000 square feet to approximately 3,300 to 8,300 square feet for residential lots. The Project Applicant is also requesting to eliminate any potential application of a General Plan clustering provision to the Project.
3) Development standard waivers and reductions: The Project Applicant is requesting a waiver of the following:
    a. Municipal Code section 18.44.050(C), a Town development standard requiring specified spacing between main buildings in a residential planned unit development.
    b. Municipal Code section 18.48.010, a Town development standard establishing maximum floor area requirements.
    c. Municipal Code section 18.17.070, a Town ordinance that requires similarity between market-rate and affordable units in density bonus projects, to the extent this provision could be read to apply to the proposed Project.
4) Reduced parking requirements: The Project will provide parking consistent with the requirements of the State Density Bonus Law. The Project Applicant is requesting the Town not require a vehicular parking ratio, inclusive of handicapped and guest parking, that exceeds the ratios identified in Government Code section 65915(p)(1).

Access and Circulation

The Project site is bordered by Alpine Road, which runs north-south to the east of the site. A new private, two-way road would be constructed to loop through the residential development from Alpine Road, with entrance and exit points at the northern and southern ends of the development. The new road would provide access for residents, guests, and emergency vehicles.

Sustainability

In addition to compliance with the new 2019 Building Energy Efficiency Standards, which require zero net electricity development, including solar electricity generation on-site, and compliance with Town of Portola Valley's "Green Building" code sections, the Project would include the following sustainability features that are not required by regulations or ordinances:

- One Level-2 electric vehicle charging station installed in each single-family residence garage
- All-electric residences with no natural gas connections

Infrastructure and utilities

The Project anticipates receiving utility service from the following providers:

- Electricity: Pacific Gas & Electric Company
- Solid Waste & Recycling: GreenWaste Recovery, Inc.
- Water: California Water Services Company
- Sewer: West Bay Sanitary District

Utilities would be connected to existing infrastructure, installed underneath the new private road and extended to individual residences (**Figures 3.10a** and **3.10b: Utility Plan**). Electric and sewer lines are available for connection from the adjacent Alpine Road.

The Project is proposed to be constructed for all-electrical operations, with no gas hook-ups and the overhead electrical line on Alpine Road would be brought underground within the new private road. As part of the construction of the Project, Stanford will also underground the existing PG&E overhead power line that runs along the Alpine Road frontage of the entire Project site.

The Project site is not currently a part of the West Bay Sanitary District, so would require annexation into the sewer district prior to connection of sewer service.

Stormwater collection and management would be accommodated on-site with stormwater detention and bioretention treatment facilities meeting required capacity and stormwater treatment quality standards before connecting to the line in Alpine Road, which discharges to Los Trancos Creek.

There is no water main in Alpine Road along the Project frontage. As a part of the Project, the water main would be extended approximately 1,700 feet within Alpine Road from the intersection of Westridge Drive to provide water connection to the Project site. The Project will connect to both an existing 12-inch water main and an existing 6-inch water main located near the intersection of Westridge Drive and Alpine Road. Since these two water mains are fed from two separate sources of water, this would create a dual connection, providing a redundant source of water to the Project site and surrounding area.

The Project has also been designed to provide rooftop photovoltaic solar panel installation, allowing for on-site power generation.

Construction

Project construction is estimated to occur over approximately 24 to 30 months. Site grading activities would take approximately six to eight months, with paving and building construction following. At the time of preparation of the analyses for this document, occupancy of residential units on the site was expected to begin as early as spring of 2023. Delayed commencement of construction activities would not change the conclusions in this EIR.

Grading to accommodate the Residential Development Area development would be generally balanced, with approximately 5,775 cubic yard of dirt being moved on the site and minimal hauling of dirt to/from the site. (**Figure 3.11: Grading and Drainage Plan**)

- One Level-2 electric vehicle charging station installed in each single-family residence garage
- All-electric residences with no natural gas connections

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PUBLIC TRAILS

The existing approximately 3.5-foot tall split rail fence would be retained along the existing horse trail fronting Alpine Road with modifications to accommodate site driveways and a connection to the new site trail.

A new 6' wide looped recreational trail would be constructed along the western edge of the development area. This trail would be open to the public and would connect to the existing horse trail along the Project site's Alpine Road frontage. (**Figure 3.9: Trail Plan**)

FIRE ACCESS ROAD

A fire access road is proposed to provide vehicular access for vegetation management crews from Alpine Road up and into the center of the Wedge property to allow mechanized equipment to clear and remove vegetation from areas not presently accessible. The fire access road would also allow access to emergency vehicles in the event of a wildfire. (**Figure 3.8: Fuel Management and Fire Access Plan**)

VEGETATION MANAGEMENT PLAN

Stanford contracted with wildfire professionals to prepare a Vegetation Management Plan ("VMP") for both the developed and undeveloped portions of the property. Areas with high fire hazard are mitigated through modifications to the live vegetation and removal of dead fuels onsite to reduce the risks. Several treatments or prescriptions (the modification of vegetation to reduce a fire's potential) are available in vegetation management practice. The type of treatments to be utilized within the Project parcel depend on the vegetation type, cover, and location. The VMP identified two types of vegetation cover on the Project site that can exhibit extreme fire behavior, which are chaparral and oak woodland. Given the existing condition of the vegetation on-site, three treatment areas were developed in the VMP, including defensible space areas around structures and recommended maintenance activities within the oak woodland chaparral areas of the property.

Stanford University would fund maintenance of the natural undeveloped area located outside the Residential Development Area.

PROJECT APPROVALS

The Project Applicant is requesting the following discretionary approvals from the Town:

- Conditional Use Permit to Allow Establishment of a Planned Unit Development
- Vesting Tentative Map to subdivide 75.4 acres into 30 residential lots and two common area lots
- Site Development Permit
- Architectural Review Permit
- The Town and Applicant may choose to enter into an Affordable Housing and Development Agreement
- Encroachment Permit for work in the right-of-way

The Project would also require Local Agency Formation Commission (San Mateo LAFCo) approval of annexation into the West Bay Sanitary District for sewer.

The Vegetation Management Plan will be coordinated with the Woodside Fire Protection District.

Following discretionary approvals, the Project would require issuance of Building Permits, which is an administrative action.

Figure 3.1: Project Site and Vicinity
Source: Project Plan Set, dated November 2020, and PaleoWest (Appendix E)

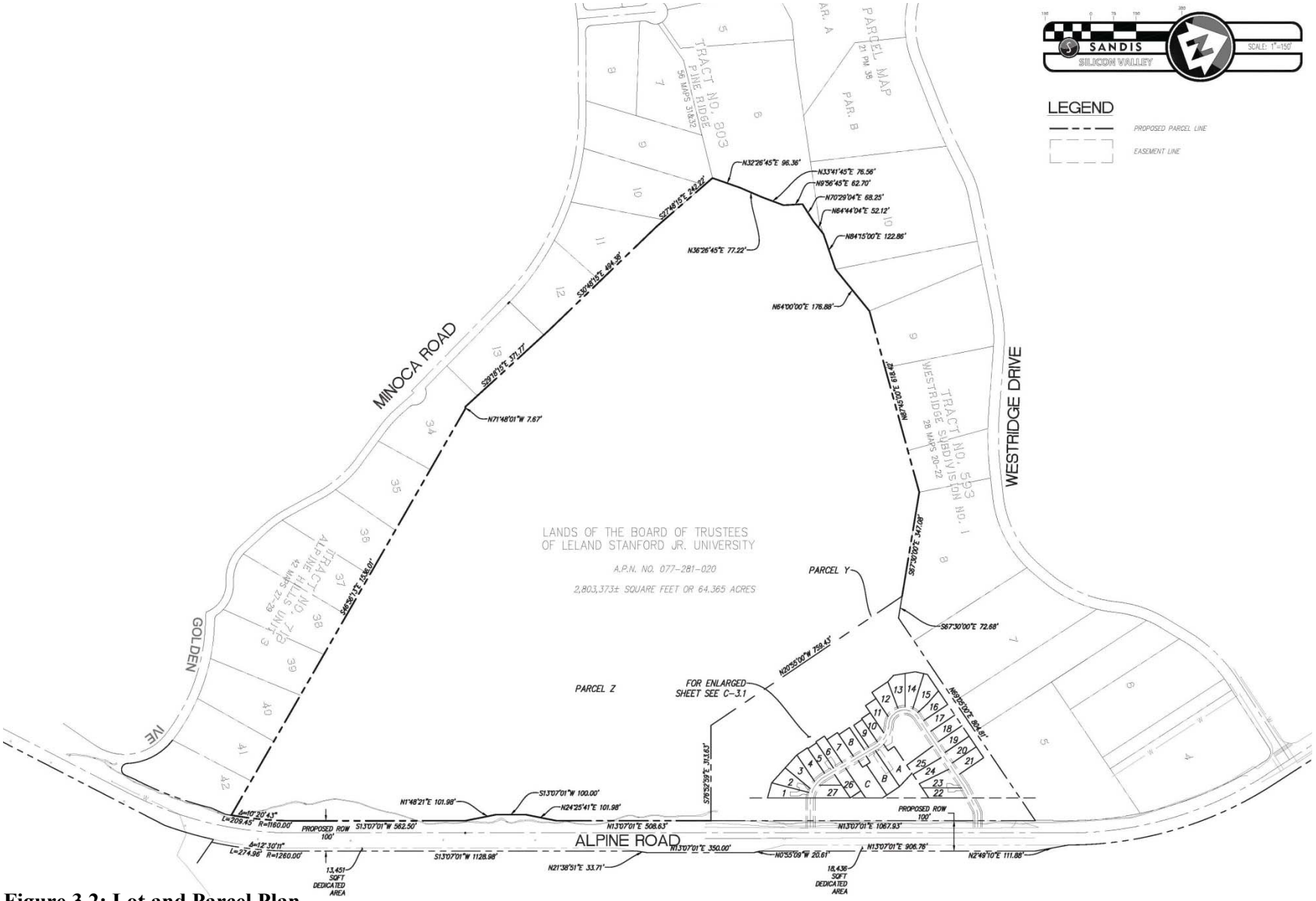

Figure 3.2: Lot and Parcel Plan
Source: Project Plan Set, dated November 2020

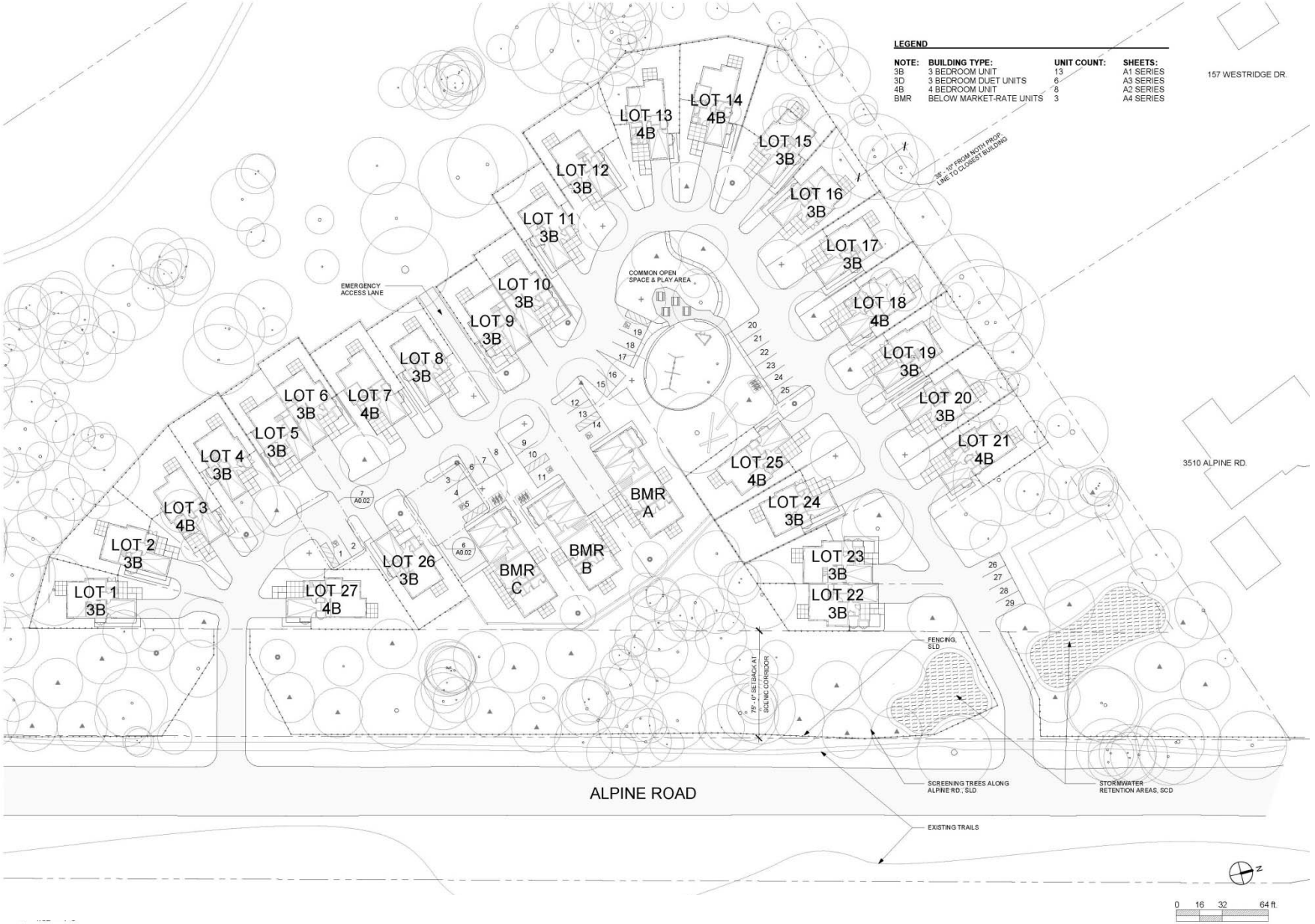

Figure 3.3: Architectural Site Plan
Source: Project Plan Set, dated November 2020

② STREETSCAPE ELEVATION 1
1/8" = 1'-0"

① STREETSCAPE ELEVATION 2
1/8" = 1'-0"

Figure 3.4: Streetscape (Internal Road) Elevations
Source: Project Plan Set, dated November 2020

B - INTERNAL NEIGHBORHOOD VIEW LOOKING AT THE COMMON OPEN SPACE
(EXISTING & PROPOSED TREES NOT SHOWN)

B - INTERNAL NEIGHBORHOOD VIEW LOOKING AT THE COMMON OPEN SPACE

A - INTERNAL NEIGHBORHOOD VIEW LOOKING NORTH
(EXISTING & PROPOSED TREES NOT SHOWN)

2 RENDERINGS - NEIGHBORHOOD INTERNAL VIEWS
WITHOUT EXISTING & PROPOSED TREES

A - INTERNAL NEIGHBORHOOD VIEW LOOKING NORTH

1 RENDERINGS - NEIGHBORHOOD INTERNAL VIEWS

Figure 3.5: Internal Renderings
Source: Project Plan Set, dated November 2020

PLANTING SCHEDULE

Sym	Botanical Name	Common Name	Qty	Size	Spacing
	New Trees				
AC	*Aesculus californica*	California Buckeye	11	36" Box	30 ' oc
QA	*Quercus agrifolia*	Coast Live Oak	34	36" Box	35 ' oc
QL	*Quercus lobata*	Valley Oak	10	36" Box	35 ' oc
			55	TOTAL	

Sym	Botanical Name	Common Name	Qty	Size	Spacing	%
	Screening Shrubs					
	Arctostaphylos regis 'Montana'	Manzanita	88	5 Gal.	96 " oc	
	Garrya elliptica 'Evie'	Coast silktassel	49	5 Gal.	96 " oc	
	Rhamnus crocea	Spiny Redberry	109	5 Gal.	60 " oc	
	Rhus integrifolia	Lemonade Berry	64	5 Gal.	96 " oc	
	Bioretention Areas					
7,938 sf	*Achillea millefolium*	Yarrow	242	plug	24 " oc	10%
	Juncus patens	California Grey Rush	994	plug	24 " oc	50%
	Leymus triticoides	Creeping Wild Rye	984	plug	24 " oc	40%
	Entry Planting Area					
4,915 sf	*Stipa pulchra*	Purple Needlegrass	1490	plugs	24 " oc	100%
	Common Open Areas					
43,083 sf	*Achillea millefolium*	Yarrow	215	1 Gal.	24 " oc	2%
	Arctostaphylos uva-ursi	Bearberry	345	1 Gal.	60 " oc	20%
	Arctostaphylos 'Pacific Mist'	Manzanita	162	1 Gal.	72 " oc	15%
	Epilobium 'Wayne's Silver'	California fushchia	323	1 Gal.	24 " oc	3%
	Eriogonum grande var. rubescens	Red Buckwheat	323	1 Gal.	24 " oc	3%
	Festuca california	California fescue	1292	plug	24 " oc	12%
	Iris douglasiana	Douglas iris	323	1 Gal.	24 " oc	3%
	Muhlenbergia rigens	Deer Grass	388	1 Gal.	48 " oc	15%
	Salvia 'Bee's Bliss'	Bee's Bliss Sage	310	1 Gal.	48 " oc	12%
	Salvia 'Pozo Blue'	Grey Musk Sage	172	1 Gal.	42 " oc	5%
	Salvia spathacea	Hummingbird sage	237	1 Gal.	36 " oc	5%
	Stipa pulchra	Purple Needlegrass	948	plug	18 " oc	5%
	Private Gardens					
28,600 sf	*Arctostaphylos uva-ursi*	Little Sur manzanita	229	1 Gal.	60 " oc	20%
	Arctostaphylos 'Pacific Mist'	Manzanita	107	1 Gal.	72 " oc	15%
	Epilobium 'Wayne's Silver'	California fushchia	215	1 Gal.	24 " oc	3%
	Erigeron glaucus 'Wayne Roderick'	Wayne Roderick Daisy	137	1 Gal.	30 " oc	3%
	Eriogonum grande var. rubescens	Red Buckwheat	215	1 Gal.	24 " oc	3%
	Festuca california	California fescue	215	1 Gal.	24 " oc	3%
	Heuchera maxima	Island Alum Root	215	1 Gal.	24 " oc	3%
	Iris douglasiana	Douglas iris	286	1 Gal.	24 " oc	4%
	Muhlenbergia rigens	Deer Grass	257	1 Gal.	48 " oc	15%
	Salvia 'Bee's Bliss'	Bee's Bliss Sage	206	1 Gal.	48 " oc	12%
	Salvia 'Pozo Blue'	Grey Musk Sage	206	1 Gal.	48 " oc	12%
	Salvia spathacea	Hummingbird Sage	120	1 Gal.	48 " oc	7%
	Private Lawns					
5,355 sf	Bolero Plus, available from Delta Bluegrass					

Figure 3.6: Planting Plan
Source: Project Plan Set, dated November 2020

Figure 3.7: Materials and Finishing Plan
Source: Project Plan Set, dated November 2020

Figure 3.8: Fire Access Plan
Source: Project Plan Set, dated November 2020

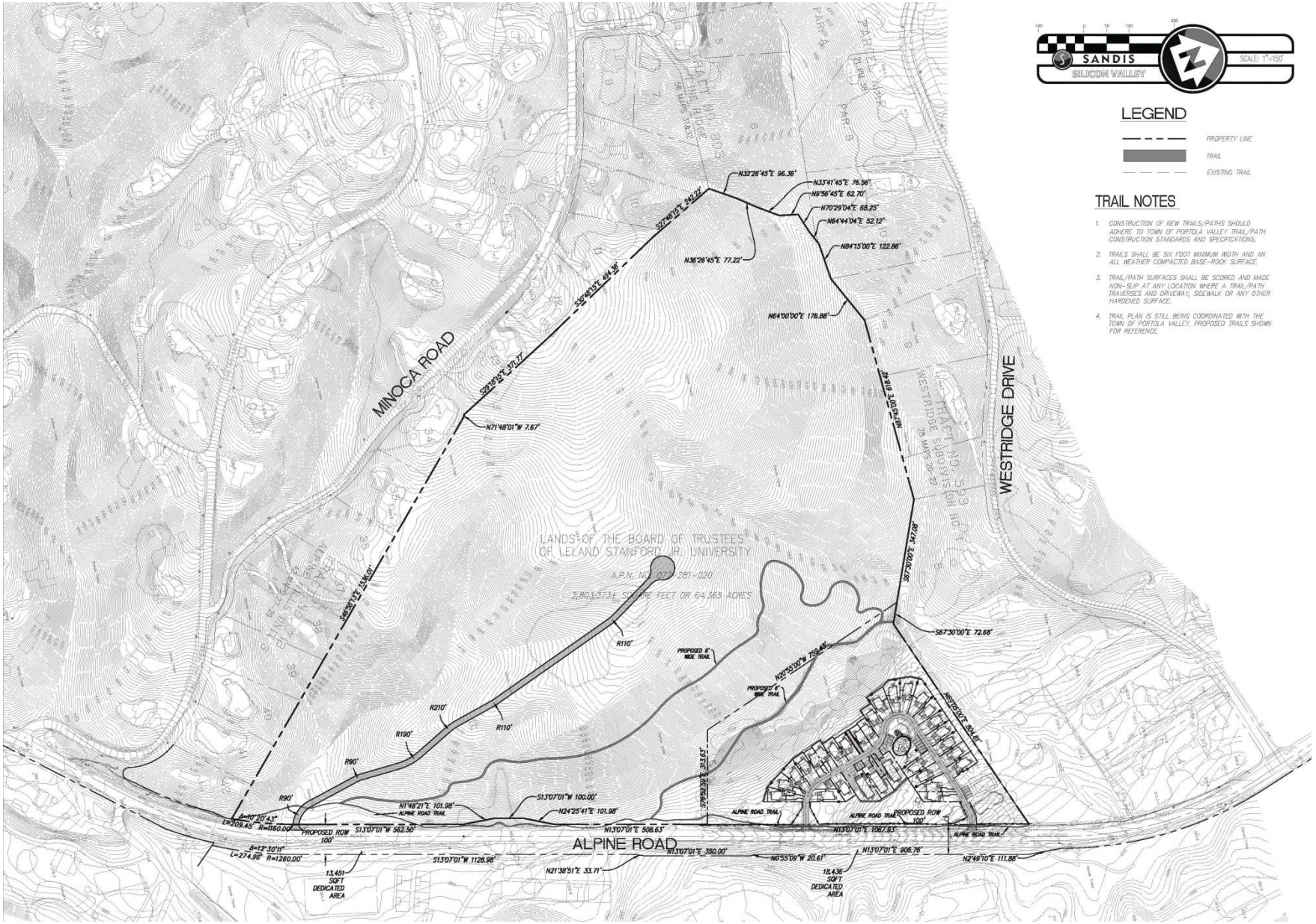

Figure 3.9: Trail Plan
Source: Project Plan Set, dated November 2020

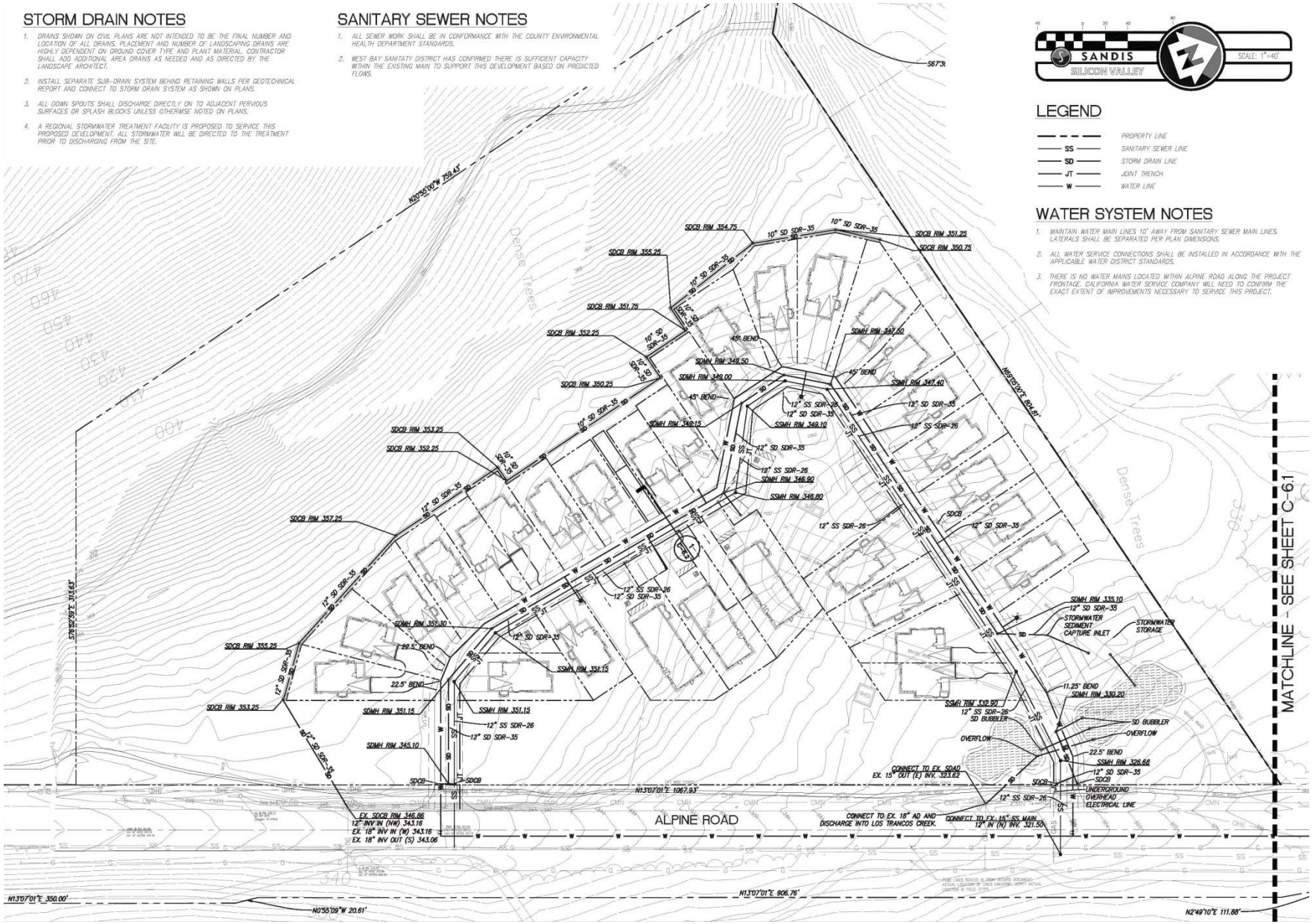

Figure 3.10a: Utility Plan
Source: Project Plan Set, dated November 2020

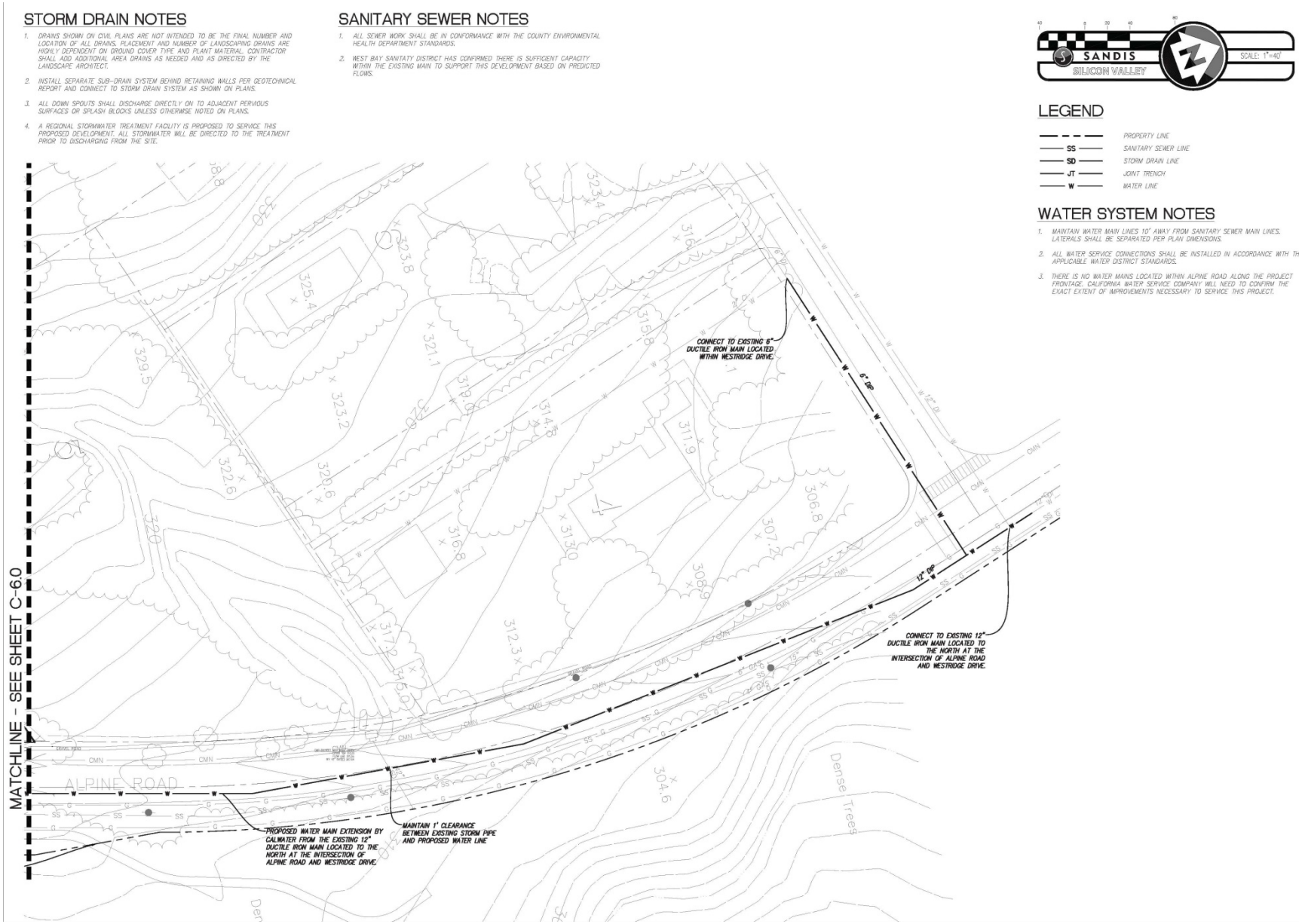

Figure 3.10b: Utility Plan
Source: Project Plan Set, dated November 2020

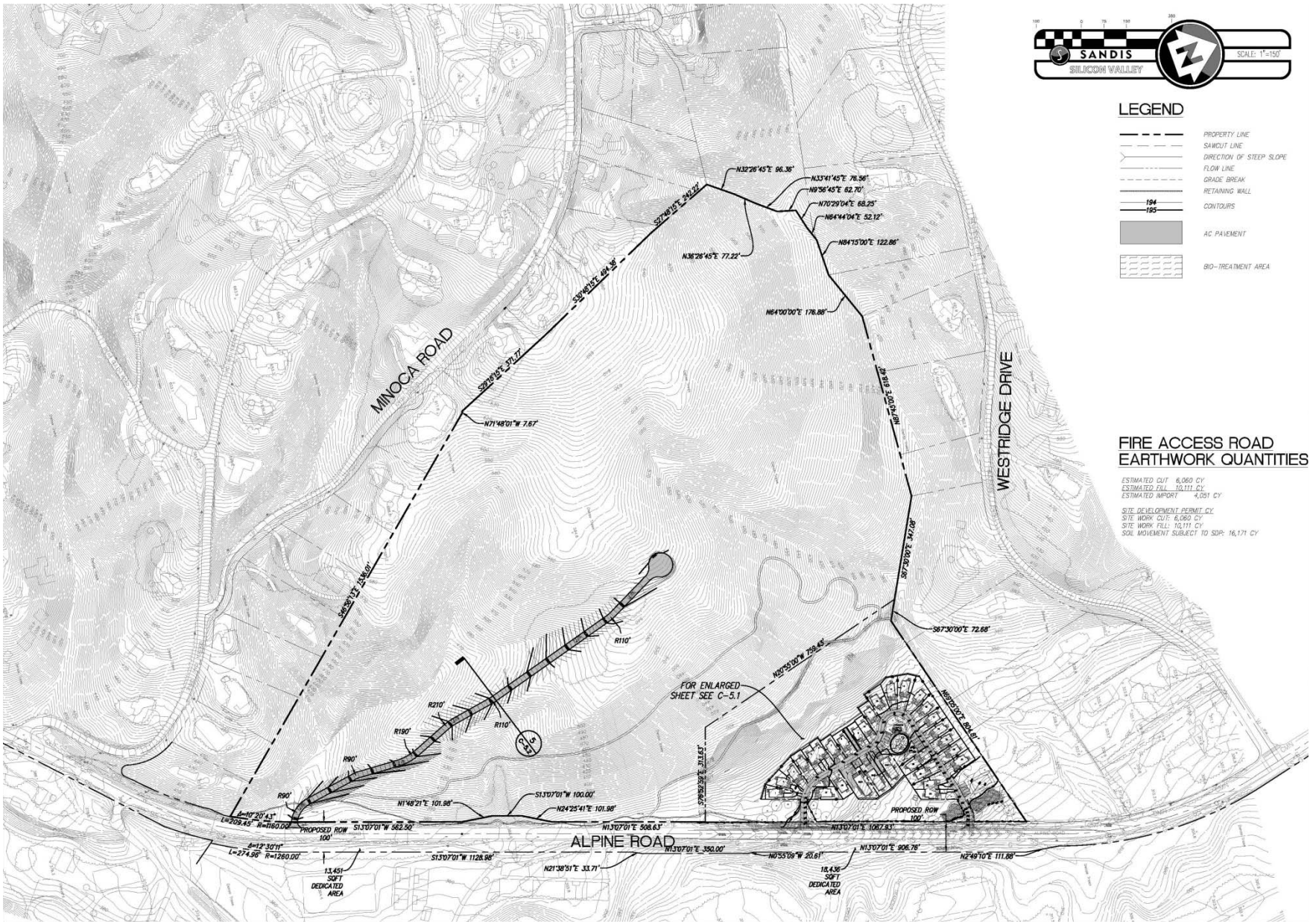

Figure 3.11: Grading and Drainage Plan
Source: Project Plan Set, dated November 2020

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