Site Development Plan for Planning Area 1 Orchard Hills Development



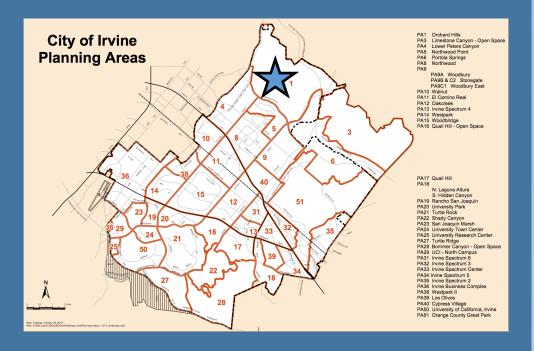
Department of Civil and Environmental Engineering

Project Overview

The team at RPM & Associates have been assigned with the land development project of the City of Irvine's Planning Area 1: Orchard Hills. A primary goal of this land development project is to create a flourishing, state-of-the art living community, for the residents of Irvine, which will be divided into various essential tracts and parcels within the planning site with a purpose that will compliment one another. These sectors will consists of, but will not be limited to, residential, commercial, industrial, educational areas that will be seamlessly integrated through the expertise, innovation, and experience of our team. The major conceptual design of the a structural theme, with a minor concept in providing a transportation infrastructure, incorporates our focus for the development of all buildings and construction in the various sectors while proposing a small transportation hub to influence the use of our efficient transit system that will run through these sectors.

Project Site Location

The Planning Area 1 zone: Orchard Hills consists of 3236 acres of land that is bordered by Lomas de Santiago ridge and State Route 241 on the north end and the Portola Parkway Road on the south end. Additionally, the site plan is bordered by the city of



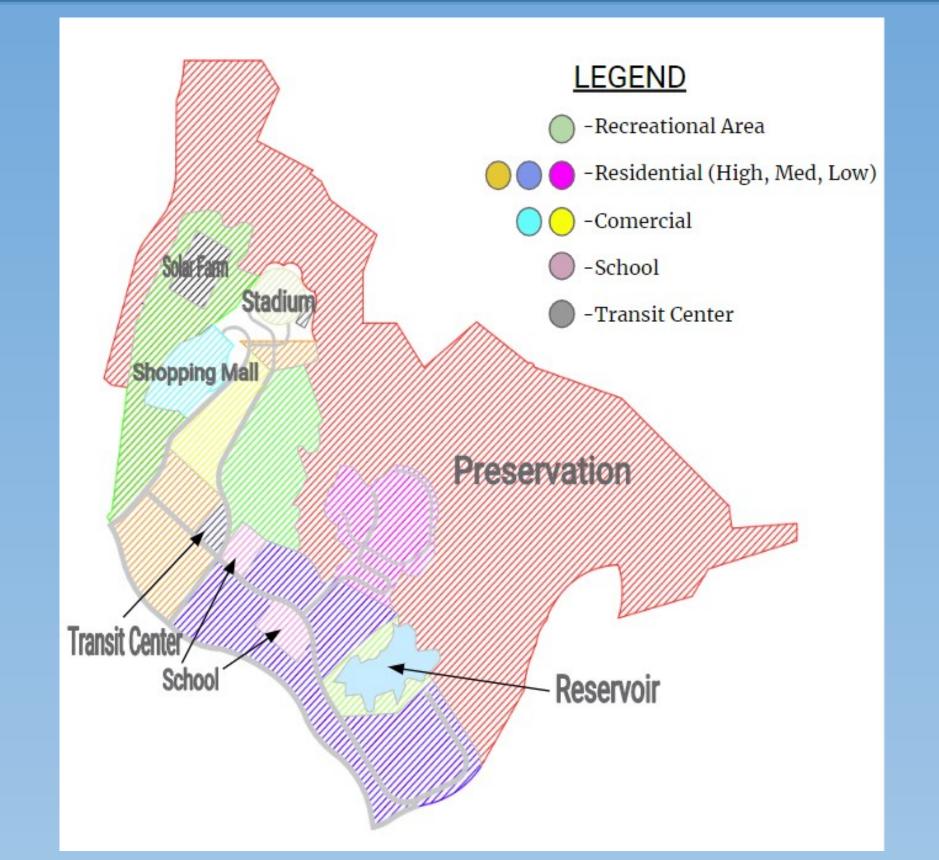
Tustin and State Route 261 to the west with Jeffrey Road as boundaries on the east. An estimated 1925 acres of the land is deemed as preservation and will remain as a preservation sector within our development. The figure displays the location of the PA1 site plan, labeled 1, relative to all of the surrounding planning areas.

Site Constraints

- City of Irvine Municipal Code
- Geographical/Topographical
- Geotechnical Constraints
- Hydrological Impacts
- Traffic Impacts/ Road Closures
- Noise Study Report

- Building Permits (Encroachment Permits)
- Environmental Impacts
- Project Costs
- Adjacent Land Use

Project Team Members: Raymond Liang, Preston Scott Kamada, Marcel Kurniawan



Zones	3236 acres	0⁄0	Population ~ 10,000
Preservation	1887 acres	58.3	Land will be left untouched
Event Stadium	31 acres	1	Multi-Use Events Center (Football Stadium)
Commercial	130 acres	4	Businesses / Offices / Shopping District
Residential	705 acres	21.8	High, Medium, and Low Density Homes
Education	45 acres	1.4	Middle School and High School
Sustainability	35 acres	1	Solar Farm
Recreational	388 acres	12	Parks / Trails / Rec. Area
Transit Center	15 acres	0.5	Park and Ride (Bus) / Metro

Traffic Impact of development

Here at RPM & Associates, we preform analysis on the impact of new developments and design solutions to prevent any negative impacts. As the main element of this development is a multipurpose event stadium, roadway layouts and transportation alternatives must be designed ahead of time to prevent any headaches during high capacity events. Our solution is to create main arterial roads from Portola Pkwy all the way to the heart of the development to alleviate congestion from high capacity events. We are also developing a transit center to promote the use of public transportation and also connect the rest of Irvine and Orange County to this new development.



Infrastructure Elements

Structural Components

- Multi Purpose Event Center (Football Stadium). Research will be made to ensure the building will be safe and efficiently designed. Due to the unique geographical locations, earthquakes prone to impact the area and the building must be designed to withstand seismic activities.
- Construction Planning and Management Accelerated build to reduce cost to total project.
- Shopping Centers and Commercial Areas
- Residential Housing High, Med, Low Density Homes
- Bus Transit Center

Transportation Components

- Transportation Center will utilize existing transportation system like OCTA and Anteater Express and expand the service to the area. This will promote use of public transportation which leads to environmental benefits and ease congestion.
- Roadway layout will be designed with main Arterials connecting the outskirts of PA1 with the Multi Purpose Event Center and the Commercial districts. This ensures the roads will be able to manage the increased traffic during high capacity events.
- Traffic Analysis and Environmental impact report.

Acknowledgements

Professor Joel Lanning Professor Stephen Bucknam Mr. Jared Wilson Irvine Company Henry Samueli School of Engineering, CEE Department

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