



RCCN Consultants

Lake Forest Residential Site Development

RCCN Consultants | General 1 (G-1)

Client Consultant - Stantec

Project Manager - Ani Sarkissian

Alondra Villegas, Darlyn Hernandez, Raul Rodriguez,
Steven Colado, Vishal Mandalia



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Project Summary and Description

The scope of this project is to develop a vacant lot into a residential community with the first time home buyer in mind. The site plan is located off the intersection of Lake Forest and Ridge Forest Dr. in between a residential community and shopping center. The site is a vacant 6 acre lot with a pad size of 3 acres with no no existing infrastructure except for a single storm drain. Stantec will utilize the space for first time home buyers. Due to the limited space, Stantec have employed RCCN Consultants to develop a preliminary site plan for a residential community of duplexes comprised of converted shipping containers. Lot sizes will consist of two 16' x 40' containers, and provide residents with a two story home.

Design Considerations

- ❖ Design for the community intended for first time home buyers
- ❖ Design of the homes relative to the general community area
- ❖ Maximizing the total number of units on the lot
- ❖ Noting the current elevation and all relevant grade change
- ❖ Considering and tapping into current utilities near the site
- ❖ Adhering to Orange County Standards for new development
- ❖ Making sure physically and conceptually that the design works

Site Constraints

- ❖ Useable area ~ 3.2 Acres
- ❖ Large elevation differentials
- ❖ Lot setback and clearance distances
- ❖ Population density & parking
- ❖ Number of units and lot placement
- ❖ Utility control and layout
- ❖ Existing hydrological flow

Site Space



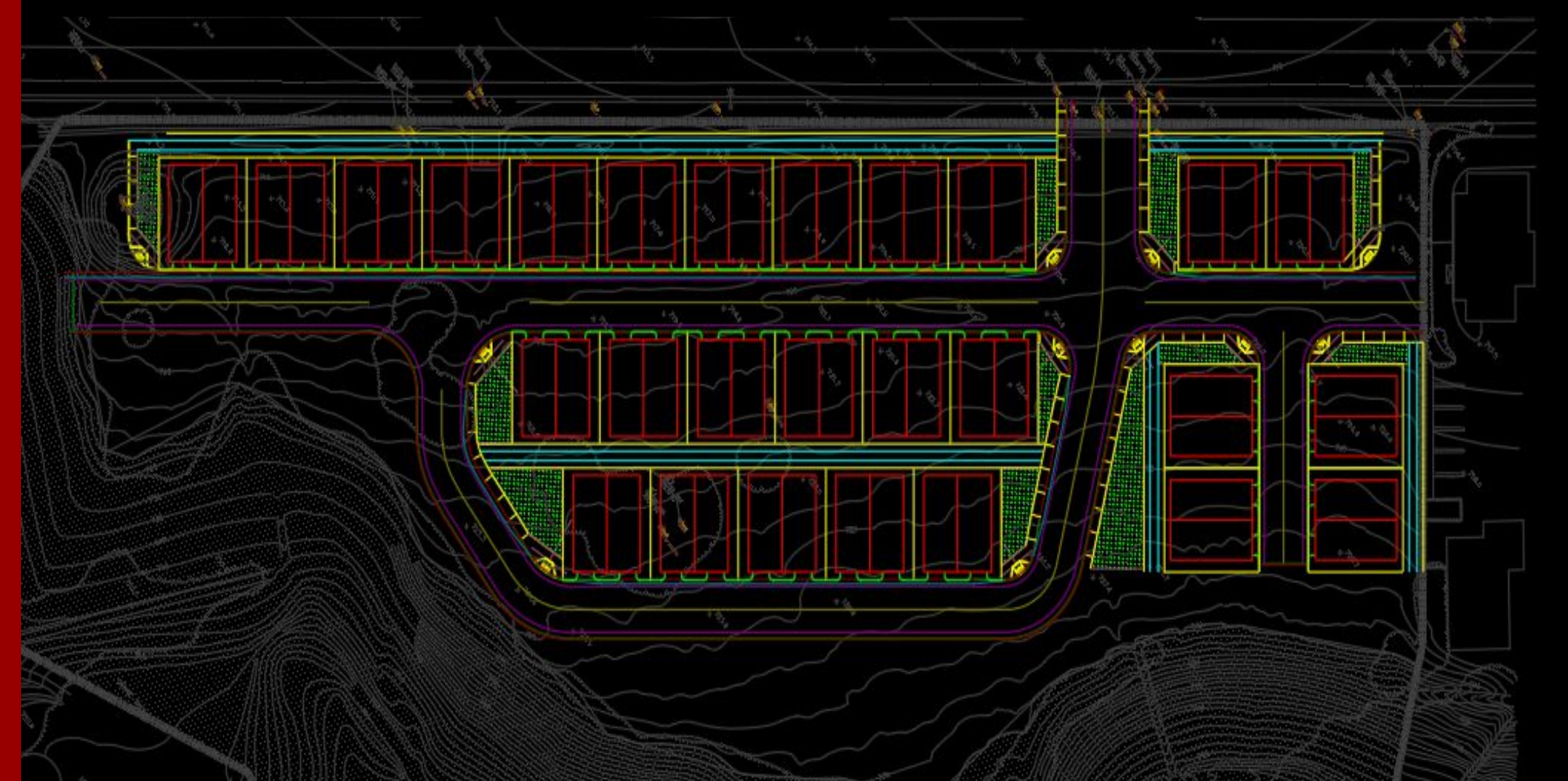
Preliminary Site Layout

The City of Lake Forest Road Design follows the Orange County Highway Design Manual. The following design constraints and standards were implemented into the design of our roadway geometrics.

- ❖ Entrance access road width 36'
- ❖ SP 1107: Residential Local Road: 10' lanes + 2' C&G = 24' roads
- ❖ SP 1201: Rolled Curb to be used on low side of private roads.

Grading will be done throughout the project site to allow for natural water runoff into catch basins and Lake Forest Drive. Grading will be done in a way that cut and fill will balance each other and reduce the project cost.

Proposed Site Layout



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Top Row (left to right): Vishal Mandalia, Raul Rodriguez
Bottom Row (left to right): Alondra Villegas, Ani Sarkissian, Darlyn Hernandez
Not Pictured: Steven Colado

Future Steps

The next phase of this project will focus on the following items:

- ❖ Cross-sectional area analysis of major components
- ❖ Precise grading
- ❖ Storm drain design
- ❖ Utility layout

Citations

O. (2005). *Orange County Highway Design Manual*. Santa Ana, CA: Orange County Public Works.

Section 3. (2011). *Procedural Guidelines and General Design Requirements*. Irvine, CA: Irvine Ranch Water District.

Acknowledgements

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