

Note: Copyright Winston, 2007, pp 38.

VERTICAL SUBDIVISION

A Tool for Developing Mixed-use Projects

Senior Project Written by:
Ellen M. Czerwinski

Under the direction of:
Professor Kelly Main

City & Regional Planning Department
California Polytechnic State University
San Luis Obispo

Spring 2009

Table of Contents:

Chapter 1: Introduction	1
Chapter 2: Mixed-Use Development	5
Chapter 3: Types of Subdivisions	9
3A - Traditional Subdivisions	10
3B - Condominium Subdivisions	12
3C - Vertical Subdivisions	16
Chapter 4: Comparing & Contrasting Subdivisions	21
Chapter 5: Difficulties & Benefits of Vertical Subdivision	25
5A - Difficulties in Vertical Subdivision	26
5B - Benefits in Vertical Subdivision	30
Chapter 6: Case Studies	35
6A - Villas of Higuera	36
6B - Macy's Plaza	44

INTRODUCTION

One is influenced, whether consciously or not, by one's surroundings: the community of people, the arrangement of houses, the amount of open space, and the surrounding amenities. Therefore, there is a focus in the planning and development sectors on creating well-planned spaces. These places influence community members to lead a healthy and sustainable lifestyle through good land use planning with an emphasis on compact urban form. Compact urban form consists of well-planned streets and neighborhoods with varying uses that support the community's quality of life while providing all the necessary services and amenities. Compact urban form can be seen in many American communities; unfortunately, many of these sites have decaying urban cores. With recent pushes toward environmental sustainability and a growing individual consciousness of one's carbon footprint, many communities are undergoing urban and downtown revitalization in order to address this problem. Another facet of urban revitalization is an impetus for infill and mixed-use development. For urban revitalization and smart growth to take place in burgeoning communities and cities, there must be a development type that is feasible, flexible, and supports mixed-use development. Mixed-use development can be implemented through multiple land subdivision processes, but the Vertical Subdivision development concept is emerging as the preferred method for implementing mixed-use compact development. Vertical Subdivisions are the preferred mixed-use form of development because it allows phased building, existing building conversions, individual ownership, and removes the problems inherent in common interest ownership developments, such as Condominium Subdivisions.

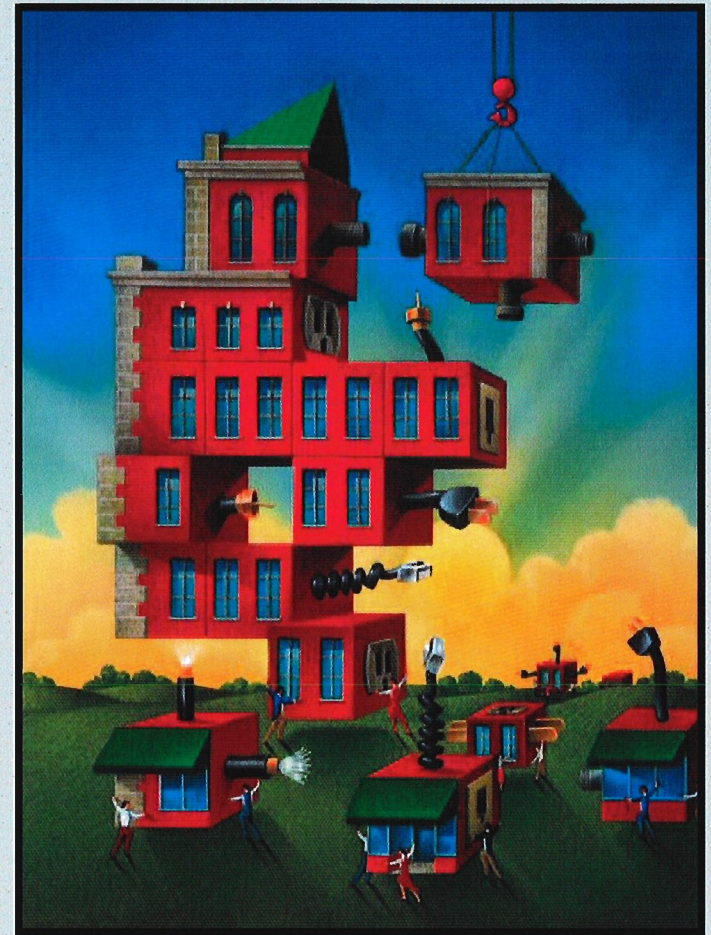


Figure 1: Mixed-Use Project
with Air Space Parcels

Note: Copyright Winston, 2007 pp 38.

Main Themes

Mixed-use Development
Land Subdivision Methods
Comparison of Subdivision Methods
Difficulties and Benefits of Vertical Subdivision
Case Studies

This expository essay will discuss the trends calling for sustainable development in the form of smart growth principles with an emphasis on mixed use and the basic forms of subdivision that may be used to create mixed-use developments. An emphasis has been placed on the Vertical Subdivision process as a way to allow for the creation of viable mixed-use developments. The main themes include a definition of mixed-use development, an explanation of land subdivision methods, a comparison of the subdivision types, the difficulties and benefits of vertical subdivision, and case studies that reinforce and highlight aspects of relatively newly developed vertical subdivisions. A definition of mixed use is provided to open a discussion on why many land planners and developers are looking toward mixed-use development as a way to create sustainable development, economically feasible projects, and healthy communities.

Three specific subdivision types are addressed – traditional, condominium, and vertical – to explore how mixed-use developments are currently being subdivided. In review of these subdivision types professional definitions of the land division and ownership parameters are provided. The logistics of the development including the difficulties and benefits in are presented along with the additional documents that must be submitted to the local agency for map approval.

Vertical Subdivision

A comparing and contrasting discussion is provided. This section graphically lays out the differences and similarity of the three subdivision types. This section is also helpful as a quick guide for a land planner or developer to see an overview of requirements and difficulties/benefits associated with a respective subdivision process.

The subsequent section largely focuses on the vertical subdivision process, presenting a more detailed discussion of the difficulties and benefits of subdividing a property vertically for mixed use purposes.

Finally, two case studies of existing vertical subdivision projects will be presented in order to demonstrate the previously discussed difficulties and benefits of vertical subdivisions. The first case study is the People's Self-Help Housing Corporation's Villas of Higuera project which was designed by eda – design professional and developed in the City of San Luis Obispo. The second case study is the Macy's Plaza development in downtown Los Angeles which was designed by PSOMAS Engineering for the Hope & Flower, LLC.

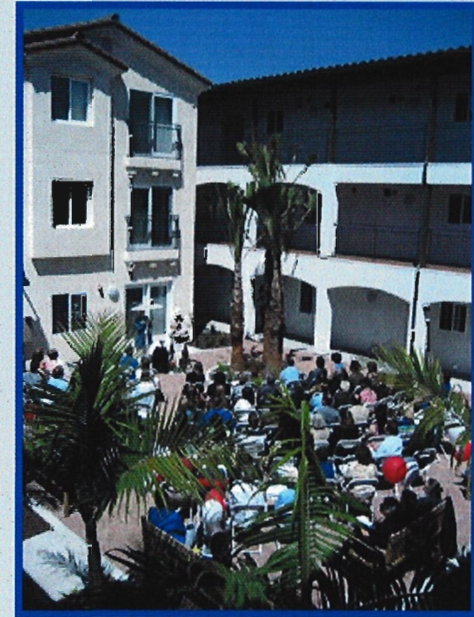


Figure 2: Villas of Higuera
Grand Opening Ceremony
Copyright People's Self-Help Housing Corporation



Figure 3: Macy's Plaza Entrance
Copyright Geocities

MIXED-USE DEVELOPMENT

Climate change and the environmental impact of societal functions have recently become the subject of international dialogue and scientific study. Awareness of global climate change, one's individual carbon footprint, and one's lifestyle choices that are unnecessarily harmful to the environment play a large role in newfound desire for sustainable communities (Shigley, 2006, pp 45). Increasingly, individuals are consciously making an effort to use energy efficient light bulbs, re-use water, promote renewable energy, as well as cut fuel costs by carpooling, taking public transportation, and choosing to live closer to work and other basic services (Green Solutions, 2009). To allow individuals the ability to carry out their desire to live more sustainably communities are pushing local governments to incorporate sustainable design principals and development strategies into municipal codes and standards.

The development strategy counteracting sustainable development is commonly referred to as sprawl. Sprawling development is characterized by large-lot single family neighborhood developments and big-box stores that are primarily accessed by automobiles with a single passenger. Concern over urban sprawl has "caused a shift toward a new national growth management paradigm focusing on mixed-use development" (Barren, 2006, pp 24) The new urban growth model strives for compact residential and commercial development "patterns utilizing integrated mass transit with greater emphasis on protecting natural resources, preserving open space, and revitalizing existing urban cores" (Barren, 2006, pp 24).

Key Concepts

- Definition of Mixed-use
- Impetus for Mixed-use Development
- Difficulties Developing Mix-Use Projects
- Mix Use land Subdivision Options

A Tool for Developing Mixed-use Projects

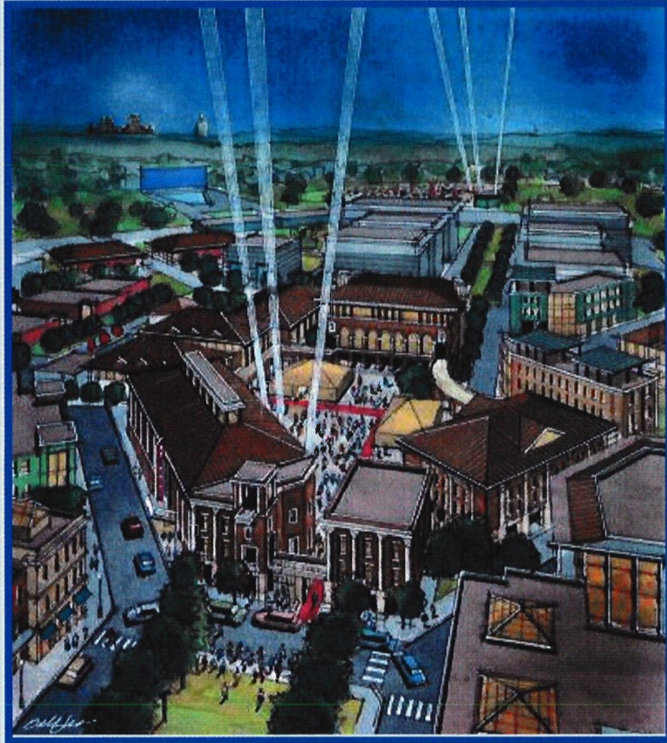


Figure 4: Rendering of a mixed-use project.

Note: Copyright Novak, Villa Muse, 2007

Many aspects of mixed-use are depicted in this rendering. This project is not a single building, but rather a downtown development with an accumulation of buildings that contain a mixed of uses. It is also worth noting that many of the building have awnings and pedestrian oriented storefronts on the ground level with office, residential, or other uses provided on the second or third stories. The idea of a clearly defined center or node is also depicted with the outdoor plaza in the center of the rendering. This highlights the previously discussed idea that mixed-use projects provide the opportunity for a diverse and interesting cultural/commercial hub.

Over the past several years an increased focus, on the part of agencies, developers, and financial institutions has been on creating compact residential and commercial development under the names of 'new urbanism', 'smart growth', 'infill', 'revitalization', and 'mixed-use, development has been observed. Though there is variation between the meanings of these separate and different compact development strategies, all work to create places with a variety of services and amenities that are easily accessed by non-motorized transportation. For the purpose of this essay, the idea of mixed-used development will solely be focused on.

Mixed-use is the title for projects that may blend residential, commercial, retail and/or business uses into a single building or site, as can be seen in figure 4. Mixed-use developments are tools that help the goals of infill, revitalization, and compact urban form come to fruition. Mixed-use projects are able to do this because they support the existence of many uses in close proximity for ease of reaching the services, cutting down on time and distance traveled, and drawing people into a defined service center (see figure 4). While mixed-use developments have "long been promoted by urbanism proponents for conservation reasons, mixed-use project are also becoming destinations" for not only community members, but also those from surrounding communities (Farnell, 2006, pp 1). Individuals are increasingly deciding to move into urban areas and into downtown cores. Many demographic groups, such as youths, professionals, and mature adults are returning to urban areas for easy access to downtown business, shopping outlets, and entertainment options that have walkable neighborhood designs and provide mass transit options. With the urban movement and focus on mixed-use projects, overall local municipal and land developer development preferences have shifted.

The planning and development sectors are versatile fields that mimic the type of development that is not only mandated by municipal codes, but also represents the general public's needs and desires. As people have moved back into urban settings and desire lifestyles where they are well connected and have access to many amenities without the use of a car, the development sector has switched its focus to mixed-use development. However, as the need and market for mixed-use development products appear to be gaining momentum a hesitation on the part of many developers and financial institutions has been observed from problems arising in using common-interest condominium subdivisions in mixed-use projects. Common-interest condominium subdivision may be problematic in long term function of a mixed-use development because of elements pertaining to shared ownership of common elements, the relationship between uses, the governance of a Home Owner Association, and the recent attacks of law suits by plaintiff attorneys. Further information on the problematic mixed-use development concepts are further addressed in both the discussion of Types of Subdivision and Difficulties & Benefits of Vertical Subdivisions sections.

TYPES OF SUBDIVISIONS

Subdivision¹ is the division of real property² for the intent to sell, lease, or finance. Subdivisions are regulated by the Subdivision Map Act³. Per the Subdivision Map Act, "regulation and control of the design and improvement of subdivisions are vested in the legislative bodies of local agencies, in accordance with adopted local ordinances which identify approval authorities, processing requirements, and appeals" (State of California, 2003).

There are three types of subdivisions: Traditional Subdivisions, Condominium Subdivisions, and Vertical Subdivisions. The two most common forms of property subdivision are Traditional, which is essentially the division of land, and Condominium, which is the carving of individual airspace parcels for individual sale with common ownership of shared space on a single site. A Vertical subdivision, similarly, is the division of property into airspace parcels, but removes the element of common interest ownership present in condominium subdivision. The following sections review these three types of subdivisions in more detail. To do this a definition will be presented followed by a conceptual subdivision development and the development implications. Each section will end with the common documents required for map approval by a municipality.

¹ Definition of Subdivision:

"Any land that is divided or is proposed to be divided for the purpose of disposition into two or more lots, parcels, units or interests. Subdivision refers to any land, whether contiguous or not, if two or more lots, parcels, units or interests are offered as part of a common promotional plan of advertising and sale." (ProU, "Subdivision", 2003)

² Definition of Real Property:

"That which consists of land, and of all rights and profits arising from and annexed to land, of a permanent, immovable nature. Or more simply, land and all the things that are attached to it. Anything that is not real property is personal property and personal property is anything that isn't nailed down, dug into or built onto the land. A house is real property, but a dining room set is not." (Lectric Law Library, "Real Property", 2008)

³ Definition of Subdivision Map Act:

"An act providing for local control of subdivisions. Cities and counties are required to adopt an ordinance to regulate subdivisions." (ProU, "Subdivision Map Act", 2003)

The Subdivision Map Act Document is available from the State of California: California Government Code: Subdivision Map Act Manual 2003 via http://ceres.ca.gov/planning/pzd/sub_ch4.html

⁴ Definition of Fee Simple Ownership:

The maximum possible estate one can possess in real property. A fee simple estate is the least limited interest and the most complete and absolute ownership in land; it is of indefinite duration, freely transferable and inheritable. Fee simple title is sometimes referred to as "the fee." (ProU, "Fee Simple", 2003)

⁵ Definition of Air Rights:

"Rights to the use of the open space or vertical plane above a property. Ownership of land includes the right to all air above the property. The air itself is not real property; however, air space is real property when described in three dimensions with reference to a specific parcel of land, as in a condominium unit. Until the advent of the airplane, this right was unlimited, but now the courts permit reasonable interference with one's air rights, such as is necessary for aircraft, so long as the owner's right to use and occupy the land is not lessened. Thus, low-flying aircraft might be unreasonably trespassing, and their owners would be liable for any damages. Governments and airport authorities often purchase air rights adjacent to an airport, called an aviation easement, to provide glide patterns for air traffic." (ProU, "Air Rights", 2003)

TRADITIONAL SUBDIVISION

DEFINITION

A traditional subdivision is commonly referred to as a horizontal subdivision. A Traditional subdivision is a one-dimensional subdivision and is used to separate a parcel of land into one or more lots for the purpose of sale, lease, or financing as depicted in figure 5. Traditional subdivisions are the most common and least complicated form of subdivision. The typical traditional subdivision starts with a large parcel of land owned by a single entity. In general this large piece of land can be sold as a whole parcel to one person, but can not be sold off in smaller portions without legal subdivision, per the rules stated in the Subdivision Map Act. The large parcel of land can be formally subdivided per the Subdivision Map Act through the local municipal government into smaller parcels. "Each of the smaller parcels can be identified on a survey and can easily be sold by subsequent owners" (Kozminski, 2005, pp 27). This type of subdivision results in fee simple⁴ ownership of each identified legal lot that includes the air rights⁵ above the lot and subterranean rights below.

Standard traditional subdivisions may or may not incorporate a common area ownership. Where local ordinances require open space dedication or common facilities are necessary (i.e. a drainage basin) these space may be held in common interest ownership, if this is the case then the formation of a Homeowners Association may be used as a mechanism to provide for ongoing maintenance into perpetuity as mandated.

Vertical Subdivision

SUBDIVISION DEVELOPMENT CONCEPT PLAN

The River Ridge subdivision, figure 5, is an example of a traditional subdivision. This subdivision is a good example of a traditional subdivision because it showcases how a larger parcel(s) was legally subdivided horizontally through the Subdivision Map Act to form the River Ridge housing tract. The smaller parcels can be identified on a tract map and are possible for individual sale. In the River Ridge subdivision the green space may or may not be reserved park and open space area that is owned jointly between individual parcel owners.

MIXED-USE DEVELOPMENT IMPLICATIONS

Although mixed-use development is possible through the traditional subdivision process it can be problematic for two reasons: 1) traditional subdivisions are divided horizontally--therefore, separation of uses does not occur vertically; and 2) zoning and municipal land use stratification is focused on separating uses rather than mixing uses next to each other. The latter is an impetus for sprawl rather than the development of mixed-use projects. If one were seeking to develop a mixed-use development it would be suggested that one choose a different subdivision method.

REQUIRED DOCUMENTS

Documents required to process a Traditional Subdivision include: a Tentative and Final Tract or Parcel Map, Covenants, Conditions and Restrictions (if applicable), and possibly Easements Deeds. All traditional subdivisions are subject to the requirements stated in the Subdivision Map Act and to state and local municipal codes.

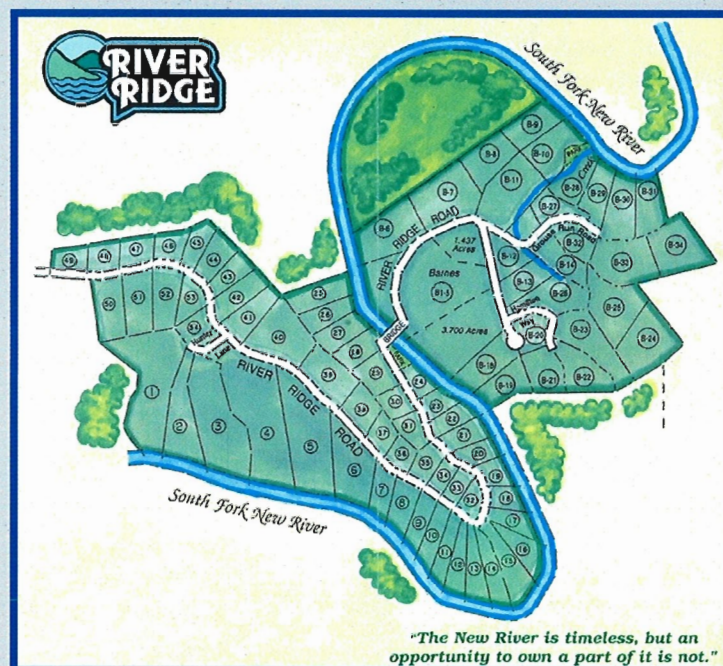


Figure 5: River Ridge an example of a Traditional Subdivision.

Note: Copyright Prudential Mountain Properties (2000-2009)

A Tool for Developing Mixed-use Projects

⁶ Definition of Air-Space:

An air space parcel is “a volumetric parcel, whether or not occupied in whole or in part by a building or other structure, shown as such in an air space plan”. This would include clearly defined upper and lower limits and side boundaries that are marked on an air space plan. An air space parcel may consist wholly of air space or air space and land. Subject to practical constraints and certain rules and regulations, an air space parcel may take any shape and become very complex. If an air space parcel were used to legally separate two or more components of a multi-use development, the boundaries would follow the configuration of that component of the development.” Typically the boundaries are defined as the inside of the walls, floor, and ceiling. The insulation, plumbing, electrical, and mechanical equipment, et cetera, inside the walls is not included in most cases. The area inside the walls is part of the parcel that is the structure of the building. (Government of British Columbia, “Air-Space”, 2009)

⁷ Definition of Title:

“The right to or ownership of land with the evidence of ownership of land.” (ProU, “Title”, 2003)

⁸ Definition of Home Owners Association:

A nonprofit association of homeowners organized pursuant to a declaration of restrictions or protective covenants for a subdivision, PUD or condominium.” (ProU, “Homeowners Association”, 2003)

“An organization comprising neighbors concerned with managing the common areas of a subdivision or condominium complex. These associations take on issues such as salting and sanding a subdivision when it snows and collecting dues from residents. The homeowners’ association is also responsible for enforcing any covenants, conditions & restrictions that apply to the property.” (Nolo, “Homeowners Association”, 2009)

CONDOMINIUM SUBDIVISION

DEFINITION

Like a traditional subdivision, a condominium subdivision divides a parcel of land. However, the land is not divided into separate parcels; rather it is divided into individual units on a single property and parcel. A condominium subdivision is still a one-dimensional subdivision, but has air-space⁶ units that may be sold individually. A condominium subdivision consists of two components – the units and the common elements. A condominium subdivision is a type of ownership where all of the unit owners own the property, the land on which the building sits, the building and facilities themselves, and the common areas of the development together, with the exception of the interior of the unit to which individuals have sole deed title⁷ (Winston, 2007, pp 42).

For example, imagine a condominium project with ten units and 10 individual owners of each one of the units, each owner owns:

1. their air-space unit, but also owns
2. 1/10 of the building including electrical and plumbing systems,
3. 1/10 of the hallways, stairways, and elevators,
4. 1/10 of the building façade,
5. 1/10 of the parking lot and landscaped areas, etc, and
6. each owner has the right to use all the common elements in the condominium development.

The element of common interest ownership and areas mandates the formation of a Homeowner’s Association⁸. Owners automatically become members of a nonprofit corporation or unincorporated association created for the purpose of managing the common interests of the development. A board of directors selected by the membership governs the association.

Vertical Subdivision

SUBDIVISION DEVELOPMENT CONCEPT PLAN

The Blue Lagoon Hua Hin is an example of a condominium subdivision. The Blue Lagoon Hua Hin contains a majority of residential, but there are some 'retail' outlets in the development that provide service to the residents. The types of services that may be included are small general store or gift store, dry cleaning services, and the like. The Hua Hin subdivision is an example of a condominium subdivision because it showcases how the individual condominium units play a role in the overall condominium development. Figure 6, shows a street view of a condominium unit building. Figure 7 is a plan view of the condominium project. Figure 8 is an architectural floor plan layout of two sample condominium units. Figure 8 demonstrates the extent of individual and sole ownership as being the walls that enclose the unit and the common area as being the pools, hallways, stairwells, etc. Figure 8 also serves to demonstrate how the units relate to the project overall and depicts the outdoor areas included in the common interest ownership.

MIXED-USE DEVELOPMENT IMPLICATIONS

The condominium subdivision method also allows for the creation of "master units" encompassing separate uses such as residential, commercial, retail, hotel, and parking uses (Farness, 2006, pp 4). These master units can be re-subdivided into smaller increments of units generally identified as the interior extents. As in the previous examples, owners of both the master units and the individual units within the master units own an equal portion of all building, common elements, the development site and must partake in the Homeowner's Association. However, because the laws for establishing and regulating condominium projects were primarily based upon residential uses, they may have a negative impact on marketing and/or operations proposed for commercial or other uses.



Figure 6: Blue Lagoon Hua Hin
Street level view of Condominium Subdivision.
Note: Copyright Blue Lagoon Hua Hin (2008)



Figure 7: Blue Lagoon Hua Hin
Plan view of Condominium Subdivision.
Note: Copyright Blue Lagoon Hua Hin (2008)

A Tool for Developing Mixed-use Projects

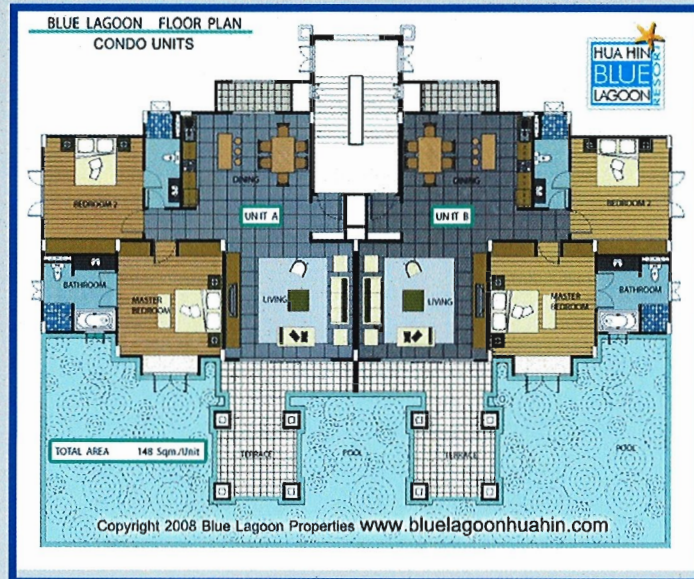


Figure 8: Blue Lagoon Hua Hin
Architectural floor plan layout of
two a sample condominium units
Note: Copyright Blue Lagoon Hua Hin (2008)

⁹ Definition of

Covenants, Conditions & Restrictions (CC&Rs):

"Limitations on land use, which are imposed by deeds, usually when land is subdivided. CC&Rs are a means of regulating building construction, density and use. May be referred to simply as restrictions." (ProU, "Covenants, Conditions & Restrictions", 2003)

Condominium subdivision may be problematic in developing mixed-use developments because the same Home Owners Association (HOA) governs the units. In the majority of small mixed-use projects commercial units are far fewer in number than residential units. This aspect can lead to heavily favoring the residential shareholder majority where residential considerations substantially and continually outweigh commercial shareholders despite the issue at hand. In the HOA it is likely that the commercial units would have a difficult time having their concerns upheld because the sheer number of constituent votes in the residential sector. Another aspect of common ownership that may be problematic for mixed-use development are the rules, regulations, and restrictions present in the Covenants, Conditions & Restrictions (CC&Rs)⁹. CC&Rs that are developed for residential units may not be beneficial for optimal business function because the individual uses have different needs and business hours.

Another issue arising from condominium subdivision more frequently is construction defect litigation encouraged by plaintiff attorneys. Construction defects may include issues with structural integrity, mechanical, electrical, or plumbing problems, water intrusion, or an issue such as window and door not opening or closing easily. Therefore, "when a pipe bursts, a roof leaks, cement cracks, or something else goes wrong with a condominium building, the unit owners or the condominium association frequently are turning to the courts to try to force the contractor or developer to pay for any damage" (Hills, 2009). Even when the claims lack merit, defending against the claims is costly and time-consuming for the developer which makes the condominium subdivision process expensive, have high insurance risks, and more difficult to gather support from lending institution for the initial project development and construction.

REQUIRED DOCUMENTS

Documents required to process a condominium subdivision include: a Tentative and Final Tract Map establishing lots or parcels, Reciprocal Easement Agreement, and Easements (if by separate document). If subsequent Condominium subdivision is proposed then identification of lots for Condominium purposes on Final Tract or Parcel Map must take place along with Condominium Plans and updated Covenants, Conditions and Restrictions. All Condominium Subdivisions are subject to the requirements stated in the Subdivision Map Act and to state and local municipal codes.

¹⁰ Definition of Easement:

"A right to use another person's real estate for a specific purpose. The most common type of easement is the right to travel over another person's land, known as a right of way. In addition, property owners commonly grant easements for the placement of utility poles, utility trenches, water lines or sewer lines. The owner of property that is subject to an easement is said to be "burdened" with the easement, because he or she is not allowed to interfere with its use. For example, if the deed to John's property permits Sue to travel across John's main road to reach her own home, John cannot do anything to block the road. On the other hand, Sue cannot do anything that exceeds the scope of her easement, such as widening the roadway." (Nolo, "Easement", 2009)

¹¹ Definition of Reciprocal Easement Agreement:

"Reciprocal Easements Agreements are easements typically found in multi-occupant commercial or residential planned developments in which common areas are set aside for the use and benefit of all the occupants. Such easements provide for the mutual and nonexclusive use of parking, sidewalks, elevators, escalators, recreational amenities, and the like." (HomeSurfer, "Reciprocal Easements", 2004)

VERTICAL SUBDIVISION

DEFINITION

Similar to a condominium subdivision a single structure is carved into air space units; however, in a vertical subdivision the units are parcels of real property. A vertical subdivision is three dimensional subdivision of a property vertically and horizontally. A vertical subdivision is volumetric subdivision of airspace along both horizontal and vertical dimensions commonly used to separate ownership in mixed-use buildings, such as commercial, retail, office, business, and/or residential developments, in order to allow each component to be financed and owned independently of the other (Farnell, 2006, pp4). Each three-dimensional vertically subdivided lot may be "bought sold, and financed just like a conventional lot" (Rowe, 2006, pp 20). This method allows for the "transfer or conveyance of distinct ownership in portions of the building, buildings, or portions of a larger project" (Rowe, 2006, pp 20). The ownership divisions could entail various different types of air space severance and subdivision. Airspace subdivisions utilize easements¹⁰ and Reciprocal Easement Agreements¹¹ for commonly utilized areas or facilities. Commonly utilized elements are not, however, universally owned by all users or owners of units as in condominium subdivisions.

Vertical air space subdivisions may or may not include a common interest ownership component which eliminates the required formation and administration of a Homeowner's Association. Vertical subdivisions, instead, commonly have maintenance agreements which owner pay regular dues for maintenance and upkeep of common elements (Van Atta, 2005). In a vertical subdivision property individual unit owner only own their airspace from paint-to-paint and have no ownership over the land below or above the unit including the ground itself or the building structure. Therefore, it is necessary for a vertical subdivision project to be feasible to have an entity or entities that desire long term title and ownership of the development structure and/or land property.

Vertical Subdivision

SUBDIVISION DEVELOPMENT CONCEPT PLAN

A single illustration or elevation does not adequately demonstrate the vertical subdivision concept because of the versatility, myriad of uses, and complex arrangements that may take place within a vertical subdivision project. Therefore, the vertical subdivision concept has been depicted with two hypothetical subdivision projects. The hypothetical projects serve to represent some of the development possibilities available with vertical subdivision. The first set of images is a more realistic rendering of a small-scale mixed-use development created by eda – design professionals. The second set of images is larger scale mixed-use development more clearly depicting the separation of uses and easements between parcels.

Figures 9 through 12 represent a hypothetical vertical subdivision that is small to medium scale. This hypothetical vertical subdivision is a mixed-use project that consists of a single property that is subdivided into 6 lots. The first image, figure 9, depicts a plan view of the representative project model which contains a single site that is vertically subdivided into six lots. The following images, figures 10, 11 & 12, depict how the project is hypothetically subdivided.

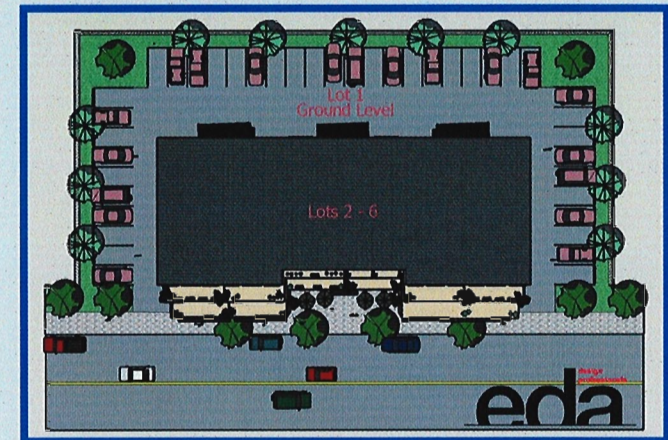


Figure 9: Plan view of Vertical Subdivision.

Note: Copyright eda – design professionals, 2008

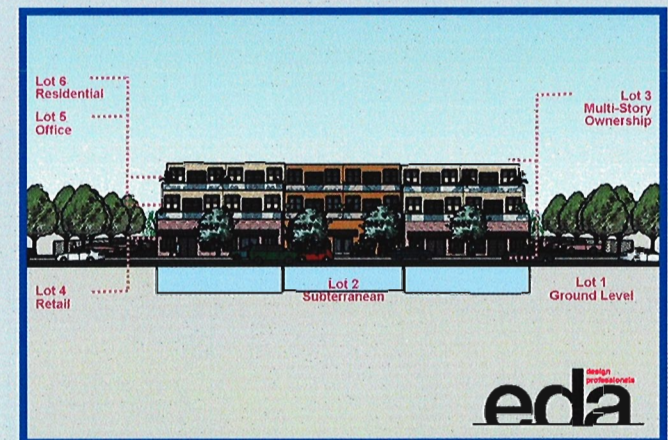


Figure 10: Elevation view of Vertical Subdivision.

Note: Copyright eda – design professionals, 2008

A Tool for Developing Mixed-use Projects

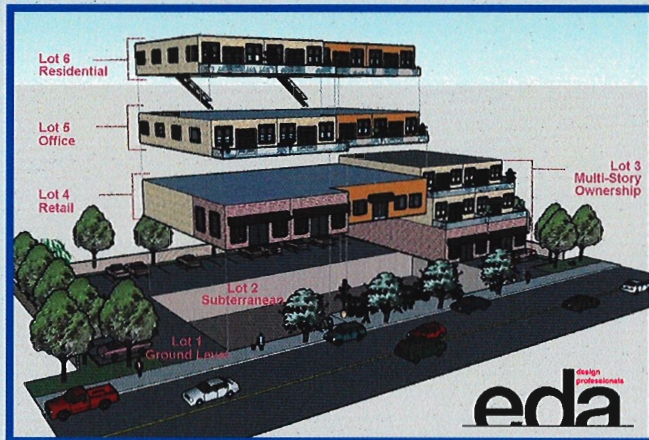


Figure 11: Isometric view of Vertical Subdivision.

Note: Copyright eda – design professionals, 2008

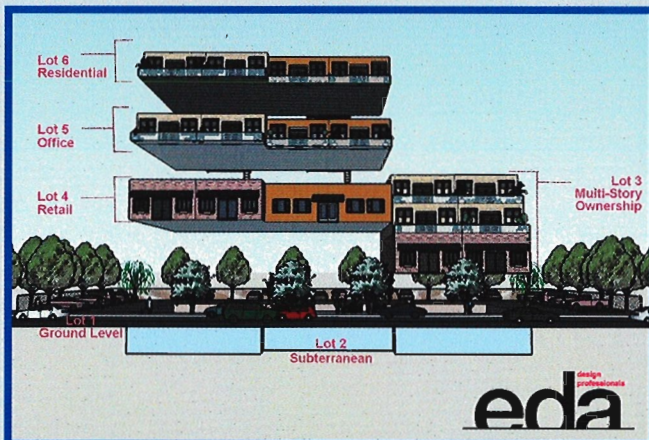


Figure 12: Exploded elevation view of Vertical Subdivision.

Note: Copyright eda – design professionals, 2008

The building is hypothetically subdivided into six lots:

Lot 1:	Land Parcel	Consists of the actual land the project sits on and the building itself
Lot 2:	Subterranean Parcel	Consists of the air space parcel occupying the subterranean level of the building
Lot 3:	Multi-story Ownership	Consists of three above ground stories of a portion of the building
Lot 4:	Retail Parcel	Consists of the ground story of the building which provides pedestrian level retail uses
Lot 5:	Office Parcel	Consists of a portion of the secondary story of the building which may be used for uses similar to those of office space
Lot 6:	Residential Parcel	Consists of a portion of the third story which is reserve for residential uses

These images portray how a structure might be divided into individual lots to produce a mixed-use project through vertical subdivision. These images are presented to demonstrate that a single building has the possibility of being subdivided in multiple ways, horizontally and vertically, to promote a viable mixed-use project.

Figures 13 & 14, developed by McEhanney Associates, also depict a hypothetical vertical subdivision project. Image 13, similarly to the previous example, illustrates the possible mixed-use parcel division in a single development. This example includes a variety of uses in an isometric 3D view of a large scale vertical subdivision project. This image serves to demonstrate how a vertical subdivision would appear volumetrically at buildout. On the other hand, Figure 14, illustrates the same mock vertical subdivision in a translucent two-dimensional paper space. The purpose of this view is to illustrate the concept of easements through the subdivision that allow it to function while still keeping the individual uses and ownership blocks separate.

MIXED-USE DEVELOPMENT IMPLICATIONS

A Vertical subdivision is a property division method that is designed to make developing a mixed-use project more feasible. It is a superior method to condominium subdivision because uses are divided into separate legal parcels of property. The separation between uses along with precise Covenants, Conditions & Restrictions and Reciprocal Easement Agreements allows for a better relationship between the uses and unit owner to conduct business and utilize their individual space. However, the vertical subdivision process can be more complicated and time consuming than a condominium subdivision mixed-use project. The mixed-use development implications are covered in more detail in the Difficulties & Benefits of Vertical Subdivision later in this work.

REQUIRED DOCUMENTS

Documents required to process a vertical subdivision include: a three dimensional Tentative and Final Tract or Parcel Map establishing lots or parcels, easements; Reciprocal Easement Agreements; Covenants, Conditions and Restrictions (if applicable); and Easement Deeds (if by separate instrument). All vertical subdivisions are subject to the requirements stated in the Subdivision Map act and to state and local municipal codes.

Vertical Subdivision

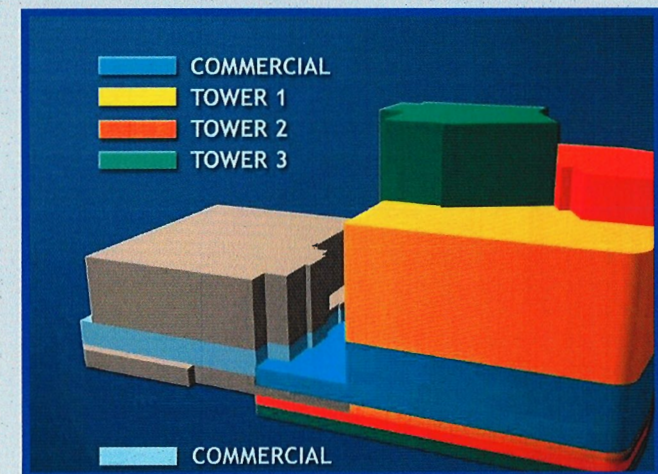


Figure 13: Isometric view of Vertical Subdivision.
Note: Copyright McEhanney Associates, 2006

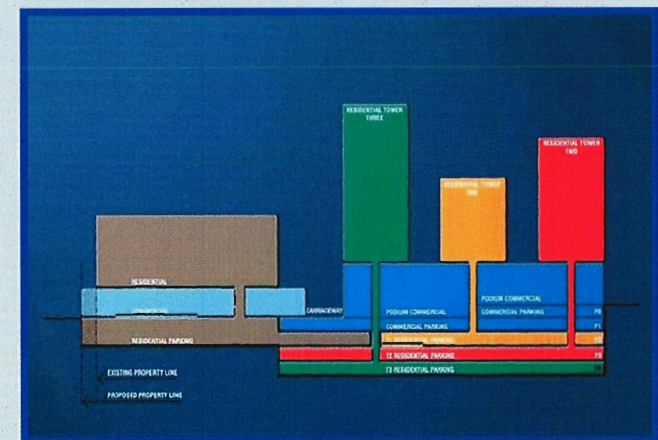


Figure 14: Transparent Elevation of Vertical Subdivision.
Note: Copyright McEhanney Associates, 2006

COMPARING AND CONTRASTING SUBDIVISIONS

All subdivision processes involve the division of property. Both Vertical Subdivisions and Condominiums entail the subdivision a building of air space units that may be sold separately. Traditional subdivision are “horizontally” subdivided with lots are created side by side and where each individual owner owns the subsurface rights beneath the lot as well as the air rights above the lot. In condominium and vertical subdivisions the developer follows the same subdivision procedure, only the subdivision occurs horizontally and vertically where properties are located both top of each other and side-by-side. In a condominium subdivision all unit owners own an equal portion of the land and air rights while in a vertical subdivision the main owner or developer retains the rights to the land rights beneath the lot as well as the air rights above the lot. While in vertical subdivision there is no common interest ownership over the entire project. Instead, individual parcels or lots of property are created. Figure 15 graphically depicts the areas in which the three subdivision processes are similar and how they are different.

A Tool for Developing Mixed-use Projects

Figure 15:
Graphic depicting the
similarities and differences
between Traditional
(Conventional), Vertical,
and Condominium
subdivision.

Note: Copyright
eda-design professionals, 2008

Conventional Subdivision	Vertical Subdivision	Common Interest Subdivision (Condominium Subdivision)
Subdivision Map Act	Subdivision Map Act	Subdivision Map Act Civil Code § 783 & 1351
Land Division Separate and Unique Parcels or Lots	Land Division Separate and Unique Parcels or Lots	Land Division Separate and Unique Units + Common Interest Ownership
Definition Two dimensional Horizontal	Definition Volumetric Horizontal and Vertical	Definition Volumetric Horizontal and Vertical
Documentation* Tentative and Final Parcel or Tract Map	Documentation* Tentative and Final Parcel or Tract Map Reciprocal Right of Use, Operation and Maintenance Agreement	Documentation* Tentative and Final Parcel or Tract Map for Condominium Purposes. Condominium Plan Covenants, Conditions and Restrictions Homeowner's Association (HOA)
Legal Description Deed of Conveyance Lot/Parcel Reference to Map	Legal Description Deed of Conveyance Lot/Parcel Reference to Map	Legal Description Deed of Conveyance Unit + Common Interest Ownership of Open Space Reference to Map Reference to Condo Plan



*Where four or more residential units or lots are a component of the project, a "White Report" must be obtained from the Department of Real Estate prior to sale of any units.

Vertical Subdivision

Conventional Subdivision	Vertical Subdivision	Condominium Subdivision
Benefits Not a Condominium Subdivision process widely accepted	Benefits Not a condominium Market Value Financing Flexibility Directed Marketing Individual Ownership (no Common Interest Ownership) Estate Planning/Partnership Future Development Potential Defined Liability Exposure Segregate residential from other Mixed Use Products Applicable to existing structures	Benefits Regulatory framework well defined Subdivision process widely accepted Right to Repair Law Lien Right

Figure 15 Continued:
Graphic depicting the
similarities and differences
between Traditional
(Conventional), Vertical,
and Condominium
subdivision.

Note: Copyright
eda-design professionals, 2008

DIFFICULTIES & BENEFITS OF VERTICAL SUBDIVISIONS

Vertical Subdivision may be the development strategy best suited to root out the weaknesses inherent in typical mixed-use condominium subdivisions. For the past several years developers in larger metro areas of California as well as nationally have opted to subdivide mixed-use projects using vertical subdivision. Vertical Subdivision, similar to traditional subdivision, maintains the same characteristic of individual ownership title held by the independent owners of each lot or parcel. However, the element of common interest ownership and Homeowner's Association oversight is absent. Vertical subdivisions projects have been found to be more resilient and less vulnerable to plaintiff attorney lawsuits.

DIFFICULTIES WITH VERTICAL SUBDIVISION PROJECTS

1. Parcels are not independent as they are in traditional subdivisions
2. Mapping and document drafting process may be long, time consuming, and expensive
3. It may be necessary to educate the local municipality of the subdivision type as they are not currently commonly used

DIFFICULTIES WITH VERTICAL SUBDIVISION PROJECTS

The ideal situation for a vertical subdivision is a project in which the developer or property owner wishes to retain ownership of the land and/or the building structure. This situation is ideal because in vertical subdivision there is not an element of common ownership and the parcel of land that the development sits on and the building it self must 'belong' to some one or some entity. Should the developer or property owner not want to retain ownership the parcel(s) which contains the land and/or the building structure can be included as a packaged deal with another parcel in the greater project development. As the land and/or structure can be a separate parcel(s) it can be construed that this is a difficulty encountered with vertical subdivision.

Another difficulty encountered with vertical subdivision is that individual parcels can not exist independently. Airspace parcels are dependant on the airspace parcels below and the independent building structure. This dependence is inherent in both condominium and vertical subdivision processes; nonetheless, the reliance on surrounding airspace parcels may make the project more difficult and time consuming in the design and entitlement phases.

Vertical Subdivision

With the complexity and level of detail it is imperative that experienced personal, engineers, facility planners, architects, code consultants, and lawyers are hired to oversee and complete the project. The governing document drafting process along with the mapping process may be a long and more time consuming process than that of a condominium. Unlike a condominium subdivision, a vertical subdivision must attempt to separate the parcel as much as possible or draft lengthy reciprocal easement agreements. Attention and detail must be given to separating the uses and removing the necessity of interaction between uses and units. Each unit should be designed to function as independently as possible. CC&Rs and Reciprocal Easement Agreements, the project documentation, may be expensive and time consuming to draft because they “must establish the system for operation of the overall facility and responsibilities for the various increments which constitute the overall project” (Van Atta, 2003). While some aspects of the vertical subdivision project may be distinct to each of the air space uses such as “independent elevator lobbies and shafts for elevator cabs, independent utility facilities, and at times separate facilities for heating, ventilation, and air conditioning”, as depicted in Figure 16, it is inevitable that there will be some common facilities (Van Atta, 2003). Areas that may be common to all of the individual units include: “the roof areas, the building exterior, common area lobbies and similar such areas” (Van Atta, 2003). With this level of complexity in building design it is imperative that the project documentation “spell[s] out who has responsibility for what particular facilities, and how decisions will be made with respect to the budgeting, management, maintenance, operation, and replacement of those facilities over time” (Van Atta, 2003). To tackle the latter issue vertical subdivision developments commonly have maintenance agreements in which owner pay regular dues for maintenance and upkeep of common elements (Van Atta, 2003).



Figure 16: Exploded elevation view of Vertical Subdivision.
Note: Copyright eda – design professionals, 2008

A Tool for Developing Mixed-use Projects

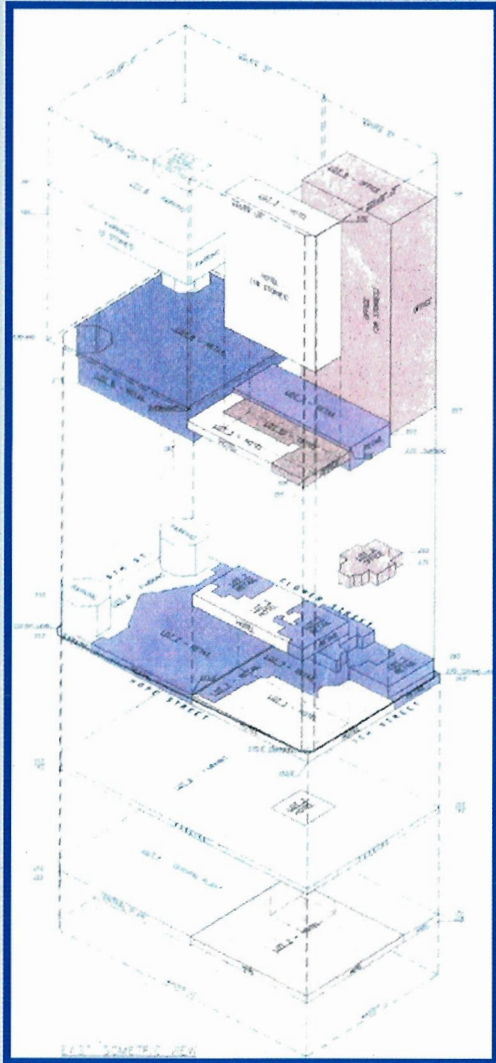


Figure 17: Vertical Subdivision Schematic Design.
Copyright PSOMAS, 2007

In addition to the complexity of drafting the project documentation the subdivision map process may also be very complex and time consuming. A vertical subdivision map must include a three dimensional tract or parcel map that establishes the air space parcels volumetrically and depicts the right of way and easements between the legal lots or parcels. A schematic example of a vertical subdivision tract map created by PSOMAS engineering is available in figure 17. In the example each of the stories of the development would need an individual map sheet to highlight the dimensions of the volumetric parcels and the accompanying easements. The level of detail necessary to draft vertical subdivision parcel can tract maps can make the map drafting process very long, complicated, and, not to mention, expensive.

Historically, there was also difficulty organizing the utilities and other facilities for individual connection and metering of the air space parcels in a vertical subdivision. However, since utilities companies are increasingly providing and requiring individual metering for reasons including energy conservation, smaller more controllable tubing networks, and increased security, this will soon be a moot point. (Wilton, 1997, 26). Individual metering leads to energy conservation because “homeowners are in control of their own heating cost” they are more aware of their personal usage and more apt to decrease usage to save money (Terasen Gas, 2005). Security is increased with individual metering by having individual meters “tucked away safely inside interior closets located on alternate floors” (Tarasen Gas, 2005). Having the meters in closets on alternating floors, rather than a single meter station on the ground level, allows for the tubing network to be better managed and allows for the meter station to be inside rather than attached to the outside of the structure. As time passes individual metering will no longer be a difficulty in developing a vertical subdivision project because it is increasingly becoming common practice most unit development projects (Wilton, 1997, 26).

Finally one of the biggest challenges that developers may face in developing a vertical subdivision project is that it is not well known about in many municipalities. A project may run into time delays if the local municipality and building inspector are unfamiliar with the vertical subdivision concept, mapping process, and associated governing documents. In smaller cities or areas where there are not yet any vertical subdivisions a developer and his team may need to educate the municipality on the subject of a vertical subdivision. It may also be necessary for the term 'air-space' to be added to municipal code to allow for the defining of a parcel to be volumetric rather than strictly land based. This difficulty was encountered by the People's Self-Help Housing Corporation's Villas of Higuera project in the City of San Luis Obispo when it was designed, as will be addressed later in the case study.

BENEFITS OF VERTICAL SUBDIVISION

1. Subdivides a piece of property into individual air space parcels
2. Separate uses to their own parcels of property
3. Removes the element of common interest ownership
4. Removes the HOA requirement
5. Allows for a greater aggregate purchase/selling price and allows potential owners or investor to buy portions of the project
6. Allows for more secured financing in new projects
7. Creates a situation for a large project to be more easily phased

BENEFITS OF VERTICAL SUBDIVISION

Both condominium subdivision and vertical subdivision offer benefits for maximizing mixed-use possibilities and property values; however, vertical subdivision offers greater benefits in terms of separating the uses to create a healthier and more economically diverse mixed-use project. A vertical subdivision creates viable mixed-use developments by separating uses into separate parcels of land that operate independently despite their geographical close proximity. The separation of uses creates a healthier and dependable working environment between uses and parcel owners while increasing property values. Property values are increased because the property market is opened with opportunities to own parcels of real property rather than buying into unit air space. The market is also opened because property buyers and investors have more flexibility in choosing which uses would suit their needs best. Finally, vertical subdivisions are more beneficial for mixed-use project because they are more easily phase projects and may have a greater number of financial institutions and lender supporting the phases or uses parcels in the development.

The greatest benefit of air space subdivision is the ability to create separate legal parcels within the same building or project. Upon recordation of the final tract or parcel map, each identified air space, ground surface or subterranean surface, is recorded under separate fee title and may therefore be transferred, leased or mortgaged, or assigned a beneficiary individually (Kominski, 2005, pp 30). This element of vertical subdivision allows for the separation of uses and removes the element of common interest ownership.

Vertical Subdivision

It is important to note that airspace parcels may be further subdivided in accordance with the Subdivision Map Act or may be identified for future condominium subdivision. A condominium subdivision can occur within vertically subdivided parcels. In figure 18, there are three tower parcels; hypothetically these tower parcels could be individual residential condominium towers that operate in the same manner as any other standard condominium, Homeowners Association and all. However, the Homeowners Association and common interest ownership would only include that area which is included in the individual vertically subdivided air space parcel.

The next great benefit of vertical subdivision that is gained from the aspect of individual parcels is the flexibility in project financing and selling/purchasing options. As real estate lending becomes more sophisticated and specialized, lenders are more interested in underwriting and funding loans within Special Purpose Entities¹² or SPE's (Penrose, 2005, 102). Oftentimes, the value of the separate parts is greater than the value of the whole.

Having the ability to compartmentalize each component by use facilitates permanent financing with specialized lenders (Penrose, 2005, 102). The independent financing also allows for the potential of a greater aggregate purchase price than would be attainable if the building had to be sold as a whole (Kozminski 2005, 28). An individual parcel would have its own value and may not be impaired by negative aspects of a particular use. The separation of uses also has the ability to attract potential owners and/or investors that would not be interested in the whole property (Kozminski, 2005, pp 28).

¹² Definition Special Purpose Entities

A financing technique in which a company decreases its risk by creating separate partnerships, rather than subsidiaries, for certain holdings and solicits outside investors to take on the risk. In order to qualify as a special-purpose entity, whose financial results are not carried on the company's books, the unit must meet strict accounting guidelines. (Farlex, "Special-Purpose Entity", 2009)

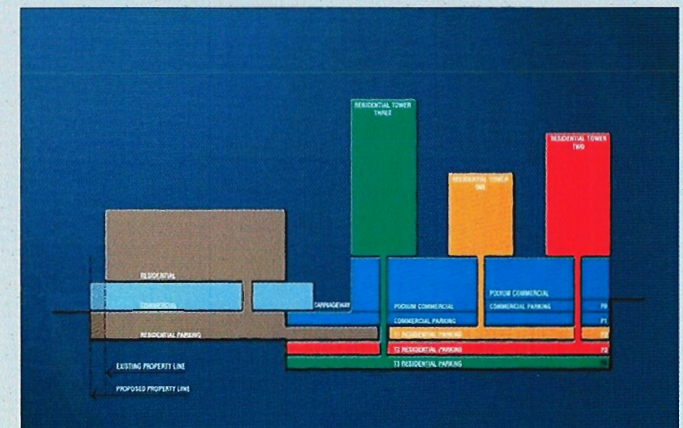


Figure 18: Transparent Elevation of Vertical Subdivision.
Note: Copyright McEhanney Associates, 2006

Subdividing the uses not only allows the developer to retain ownership of lots that suit his expertise and sell off those components which would be better developed or operated by others, but also gives potential buyers the flexibility to purchase just a segment of the development. This type of development retains the benefit and convenience of centralized management without the added liability while creating depth in the market (Rowe, 2006, pp 20). In addition to creating greater value when selling the property, a vertical air space subdivision offers “building owners the opportunity to pull out equity and gives tenants the option of separate ownership” (Rowe, 2006, pp 20). This option along with the ability to convert uses – i.e hotel into apartments, retail into office – based upon market changes can lessen the loan burden if the market or building’s financial status were to make a downward turn (Rowe, 2006, pp 20).

Vertical air space subdivision projects also have unique operational benefits. As alluded to earlier, vertical subdivision documentation must delineate ownership of general, limited, or reserved common elements under centralized management via master maintenance agreement with appropriate cost allocations (Scavo, 2002). This in turn minimizes the potential challenges related to design review or operations by segregating management authority to appropriate stakeholders.

This documentation also ensures that there is no overt common interest ownership and therefore removes the requirement for a Homeowner’s Association (Scavo, 2002). In a condominium subdivision all areas not identified as part of individual condominium units are considered common elements, subject to maintenance assessments and other obligations as defined in the Covenants, Conditions, and Restrictions (CC&Rs).

Completing a vertical air space subdivision for condominium purposes prior to the condominium subdivision confines these obligations to the boundaries of the identified air space lot, rather than the entire project. The ability to segregate common interest ownership to a specific air space lot provides for:

- “Simplified formation of tiered or layered associations
- More clearly defined designation of voting rights, cost allocations and liability
- Reserve amounts confined to common interest ownership within lot boundaries” (Hagerott, 2002, pp 16).

Reciprocal easements and rights are explained in the vertical subdivision declaration. The declaration can proscribe “rules for operation, maintenance, and reimbursement for shared systems while prevent other owners from doing anything out of context with the rest of the building” (Hagerott, 2002, 15). Removing the Homeowner’s Association is beneficial because multiple owners (i.e. hotel, office, retail) of a mixed-use project may not want to sit on a Board of Directors, let alone pick a president and treasurer or budget and collect assessments

With this base of knowledge case studies are provided to highlight practical application of developed real life examples of vertical subdivision projects. The Difficulties & Benefit of Vertical Subdivision section will serve as the basis for exemplifying the vertical subdivision process in the two distinct case studies.

CASE STUDIES

Case studies are valuable to review real life examples of vertical subdivision projects. In order to demonstrate the breadth, highlight the development benefits, and present the issues associated with vertical subdivision two distinct vertical subdivision projects in California have been selected to discuss. The first project is the Villas of Higuera affordable housing project developed by the People's Self Help Housing Corporation in downtown San Luis Obispo. The second is the vertical subdivision conversion of the Macy's Plaza project in the Central District of Los Angeles. The case study projects are different in size, types of uses integrated, and subdivision process; but, they are similar in that they choose to use the vertical subdivision process to create more viable mixed use developments.

The case studies will be introduced with an overview of the project. The objective of this presentation is to establish the framework of the project as well as the goals the project was attempting to accomplish through the vertical subdivision process. The following section addresses the difficulties faced during the subdivision process. The next section addresses the benefits of choosing the vertical subdivision process and how the goals were accomplished. The final section is a conclusion and review of the information gained from the case study.



Figure 19: Villas of Higuera Rendering.

Note: Copyright People's Self-Help Housing Corporation, 2008



Figure 20: Villas of Higuera Grand Opening Ceremony.

Note: Copyright People's Self-Help Housing Corporation, 2008

VILLAS OF HIGUERA

PROJECT OVERVIEW

The Villas of Higuera was developed by the People's Self-Help Housing Corporation and engineered by eda – design professionals. The Villas of Higuera project is a mixed-use development subdividing a single parcel and structure into two parcels. The project is located at 3071, 3077, & 3085 South Higuera Street in the City of San Luis Obispo. The project sits on a 39,820 square-foot site and consists of 2 parcels. As can be seen in figure 21, Parcel 1 consists of the residential component of the project composed of 28 affordable infill housing units, covered parking, and the second floor of the commercial building. Parcel 2 consists of the first floor of the commercial building and an uncovered driveway with parking spaces. The Final Parcel map is identified as SLO 06-0234 and the Subdivision Maps is identified as MS 12-05. The Final Parcel map was approved on October 19, 2007.

The People Self-Help Housing Corporation (PSHHC) is dedicated to “provide[ing] affordable housing and programs leading to self-sufficiency for low-income families, seniors, and other special needs groups on California’s Central Coast” (People’s Self Help Housing Corporation, 2009). The Central Coast of California in general and the City of San Luis Obispo more specifically, is well known to have a high cost of living and exceptionally high housing costs. Real estate is expensive, housing is limited, and there is a high demand for housing units, as such, there is a great and growing need for affordable housing.

The property on which the Villas of Higuera is located is zoned Service Commercial with a mixed-use overlay zone (C-S-MU). The property is also surrounded by existing structures. Within the City of San Luis Obispo infill development is prescriptive for having housing project approved as a way to prevent urban sprawl and continue San Luis Obispo's coveted small town feeling. The zoning category, the development surrounding the site, and the City's development requirements were all conducive for the PSHHC to create an affordable housing infill mixed use development.

Through the vertical subdivision process, PSSHC was making an effort to accomplish certain development goals that would make the project viable and successful. The three goals the vertical subdivision process allowed the Villas of Higuera development to accomplish are as follows:

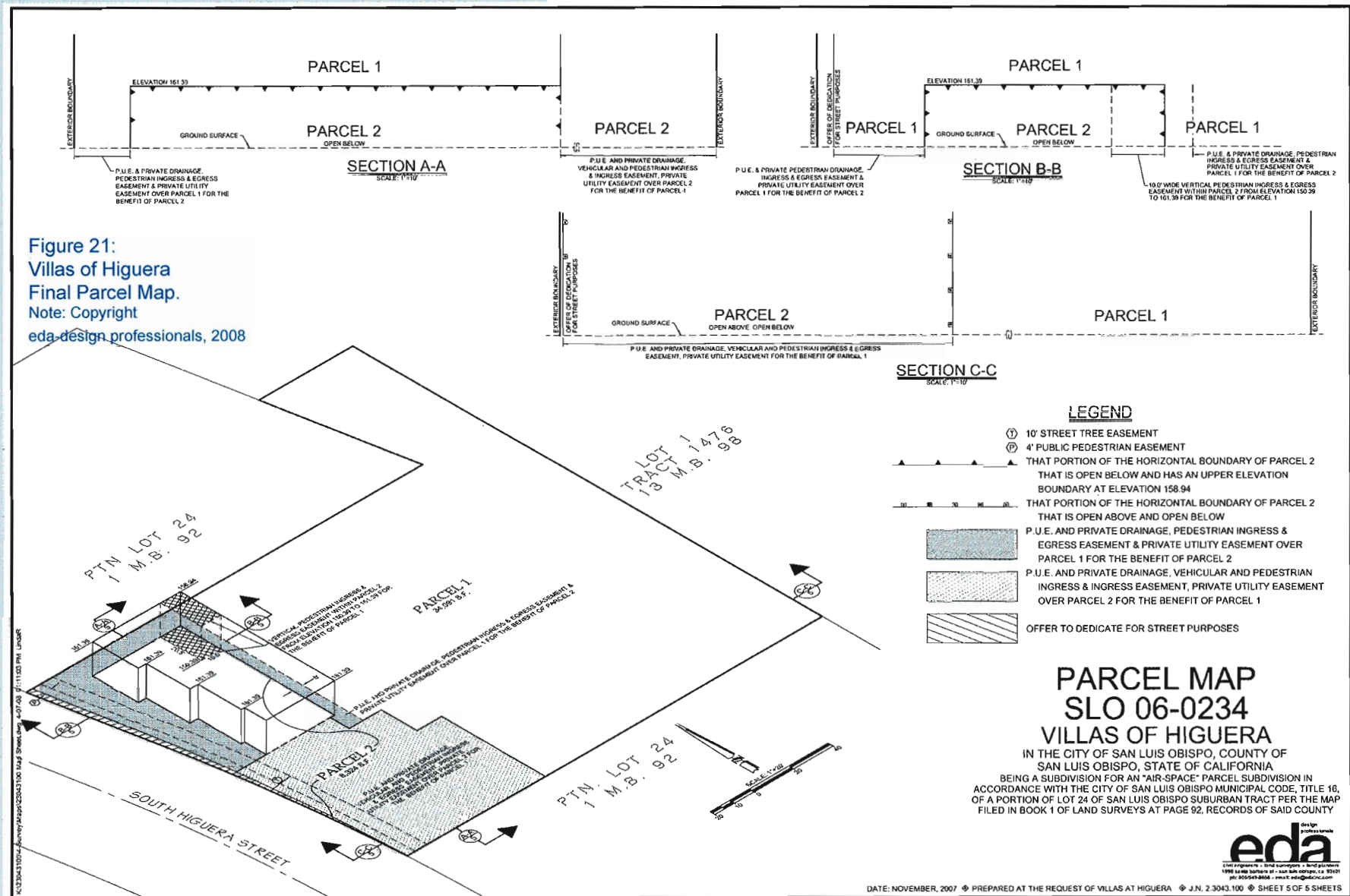
1. Subdivide of a single structure into two individual parcels for possible individual sale, leasing, and financing;
2. Separate residential and commercial uses and activities; and
3. Create a healthy social and economic environment that increases viability of a mixed-use development.

These goals would not have been possible to accomplish with another subdivision process. Ultimately, the goals were achieved through the project, but not with out difficulties.

Villas of Higuera Goals for Vertically Subdividing

1. Subdivide of a single structure into two individual parcels for possible individual sale, leasing, and financing;
2. Separate residential and commercial uses and activities;
3. Create a healthy social and economic environment that increases viability of a mixed-use development.

A Tool for Developing Mixed-use Projects



DIFFICULTIES IN THE VERTICAL SUBDIVISION PROCESS

In an effort to accomplish the project goals PSHHC and the project faced difficulties in order to gain the overriding benefits of vertical subdivision. The most evident difficulties the PSHHC faced when vertically subdividing the Villas of Higuera project were:

1. Introducing the vertical subdivision concept to the local municipality; and
2. Drafting the separate yet complementary Covenants, Conditions, & Restrictions along side a Reciprocal Easement Agreement.

The dominant difficulty with the Villas of Higuera project was the situation that no other Vertical Subdivision project had existed in the City or County of San Luis Obispo, let alone the Central Coast of California. Although vertical subdivision is allowed per the Subdivision Map Act, it is not yet a common development strategy, widely used, or even widely known of. At the time PSHHC decided to develop a mixed-use project in San Luis Obispo they were aware of the difficulties of inherent in creating a mixed-use project through condominium subdivision. As this was currently the common subdivision path they proceeded with having the Villas of Higuera project approved by the City and began construction.

Eda – design professionals, the project engineers, learned of vertical subdivision concept and offered this solution to PSHHC. As it was an ideal development situation for the project, eda- design profession took action to introduce the vertical subdivision concept to the City of San Luis Obispo. To introduce the vertical subdivision process eda – design professionals met with the City of San Luis Obispo's planning and building officials. During initial conversations eda – explained the vertical subdivision concept and how the it pertains to the Subdivision Map Act, the common mapping and document requirements, and common building and safety requirements that may be necessary to subdivide and/or construct a vertical subdivision project.

Difficulties In The Vertical Subdivision Process

1. Introducing the vertical subdivision concept to the local municipality; and
2. Drafting the separate yet complementary Covenants, Conditions, & Restrictions along side a Reciprocal Easement Agreement.

After the initial introduction, the next step in gaining the City's support included making a request that the City amend the Subdivision Regulations in the Municipal Code. The request was centered on having the concept of Airspace Subdivision (a common synonym for Vertical Subdivision) and Air Space Parcel included in the Subdivision Regulations. In July of 2007, the City of San Luis Obispo ratified an amendment to the Subdivision Regulations to include the terms, which would allow vertical subdivision to take place within the City. The City's reasons for amending the code included a statement to the effect that there is a "need to recognize Airspace Subdivision, a new trend in the subdivision of multi-story buildings... that combine housing and offices... [the City and projects] would benefit from the ability to subdivide the property in to airspace lots" (City of San Luis Obispo, File Number MS12-05, 2007). Amending the City of San Luis Obispo's Subdivision Regulations in the Municipal code required almost one year. The introduction, gaining support, and ultimately, acceptance of the vertical subdivision concept was an arduous task, but the City believes it will benefit downtown mixed use projects and it will accentuate "market trends [and] encourage mixed use development" where vertical subdivision may function as "another tool for the City to facilitate [mixed use] development where appropriate in land use context" (City of San Luis Obispo, File Number MS12-05, 2007).

The second difficulty in vertically subdividing the PSSHC's Villas of Higuera was the drafting the project documentation. Although, it should be reiterated, that that drafting project documentation is the most common difficulty in vertical subdivision projects. Drafting the project documents, the Reciprocal Easement Agreement (REA), Covenants, Conditions, & Restrictions (CC&Rs), and framework for the Homeowners Association (HOA)(for the residential condominium parcel), was a difficult task because of the level of detail and technical property rights information that must be conveyed. These documents lay out the regulations guiding the use of common area, common facilities, easements between properties, the responsibility for construction, maintenance, and repairs, and state the use and operation rules.

It is also necessary that any CC&R or HOA document coincide with the master REA. In the Villas of Higuera project the document drafting process was tedious because it included a master REA between the commercial and affordable housing parcels, as well as, a condominium CC&R and HOA oversight documents. The CC&R and HOA documents were difficult on their own because of the California laws and regulations associated with affordable housing units and programs. The task of making these CC&R, HOA, and REA documents complementary was difficult and time consuming. It was necessary for this project, like many other vertical subdivision projects, that an experience attorney in both REAs and affordable housing be involved in the creation and drafting of the project documentation.

BENEFITS & GOALS ACCOMPLISHED WITH VERTICAL SUBDIVISION

Despite the difficulties PSSHC encountered while developing the Villas of Higuera as a vertical subdivision the project accomplished its initial goals. Again, the initial goals for subdividing vertically were to:

1. Subdivide of a single structure into two individual parcels for possible individual sale, leasing, and financing;
2. Separate residential and commercial uses and activities; and
3. Create a healthy social and economic environment which increases viability of the mixed use development.

The first objective, subdividing the single parcel lot and structure into two individual parcels is only possible through vertical subdivision. Initially the Villas of Higuera project was solely a condominium subdivision with both residential and commercial uses. However, a condominium subdivision was not the ideal development path. The PSSHC during the construction phase, instead, decided to vertically subdivide the project site and structure into two parcels made up of separate master condominium plans.

Benefitts Of The Vertical Subdivision Process

1. Subdivide of a single structure into two individual parcels for possible individual sale, leasing, and financing;
2. Separate residential and commercial uses and activities; and
3. Create a healthy social and economic environment which increases viability of the mixed use development.

The purpose of subdividing the project into two parcels was to “allow the commercial component of the project to be [bought and] sold separately without the need to bind the two together through a homeowner’s association for common area maintenance and responsibilities” and property rights (City of Los Angeles, Conditions of Approval for Vesting Tentative Tract Map 53760, Macy’s Plaza, 2007). If the Villas of Higuera project continued under the initial condominium subdivision then the structure and all units would have been governed by the same Covenants, Conditions & Restrictions (CC&Rs). CC&Rs that are developed for residential units may not be beneficial for optimal business function because the individuals in residential units and commercial units have different needs and business hours. The commercial units, far fewer in number, than the residential units, would have owned and equal share of the common elements and would have been required to participate in the Home Owners Association (HOA). In the HOA it is likely that the commercial units would have a difficult time having their concerns upheld because the lopsided number of constituents from the residential sector. The inequalities in the HOA system lead to the need for the project to be vertically subdivided to separate the uses for a more harmonious relationship and governing rules.

The second objective of vertical subdivision was to separate the uses. Vertically subdividing the structure and property into two parcels allowed for the residential component to consist of Parcel 1 and the commercial component to consist of Parcel 2. Each parcel was then further subdivided by condominium subdivision that meets the needs unique to the use. Each parcel has their own CC&Rs and HOA, which addresses the needs and services individual to respective use. A harmonious relationship is created between the uses through a Reciprocal Easement Agreement (REA) that provide rules and standards for the units to cooperate together. The REA is an important aspect, because of the close proximity, in creating viable mixed-use developments.

The final objective was to create a viable affordable housing development. As stated previously, dividing the uses into individual parcels allows for the parcels to be bought and sold individually. Currently, PSHHC retains ownership and utilized the commercial portion of the development, but potentially the corporation could decide to sell, lease, or finance the commercial parcel. This element makes the project more diverse and able to stand on its own rather than be restricted in the same manner as affordable housing developments.

CONCLUSIONS

Without the option of vertical subdivision the People's Self-Help Housing Organization would not have been able to separate the commercial uses and the affordable housing units into separate parcels. Having the uses separated into individual parcels was ideal in this situation; it could not only retain ownership over the land the project sits on, but also create a more economically viable and livable mixed-use project. Separating the commercial use into a separate air space unit allows it to compete freely in the commercial real estate market while adding diversity to the project. Ultimately, the vertical subdivision process for the Villas of Higuera will yield a development that is more flexible, resilient and viable mixed-use project.

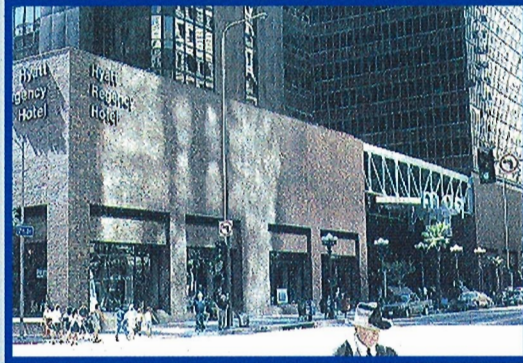


Figure 22: Macy's Plaza
Note: Copyright People's USC, 2007

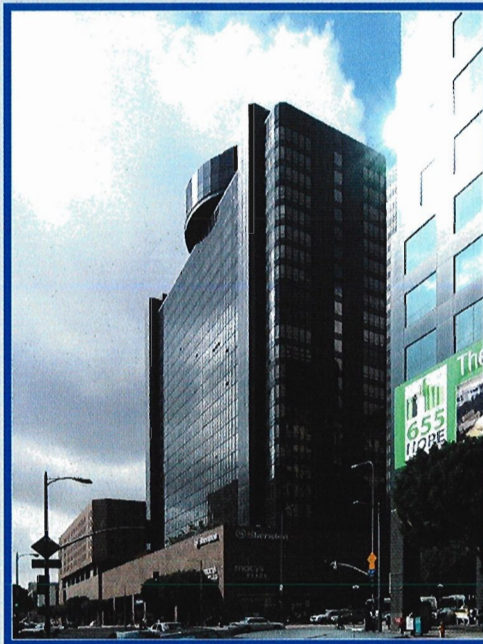


Figure 23: Macy's Plaza.
Note: Copyright USC, 2007

MACY'S PLAZA

PROJECT OVERVIEW

Macy's Plaza was originally the Broadway Plaza. The Broadway Plaza was constructed in 1972-1973 by Charles Luckman and Associates. The structure is famed to be the first "downtown enclosed 'suburban' type shopping center in the United States" (University of Southern California, 2007). In 1996 the Plaza was renamed the Macy's Plaza and in 2003 the plaza began its vertical subdivision conversion. A Macy's department store and indoor mall make up the foundation of the plaza development. Atop Macy's are two "32 story glass towers of the Hyatt Regency on the east, and the office building on the west" (University of Southern California, 2007).

Macy's Plaza is located in the Central District of Los Angeles at 700 S. Flower Street and 7111 S. Hope Street. The existing site zoning is Commercial 2 with a high density overlay (C2-4D). The existing site uses are commercial, hotel, and retail. The project consist of a vertical subdivision conversion of a 26-story commercial/hotel/retail building and a 33-story office building with a parking garage into a ten lot vertical air space subdivision development on a 4.28 acre site. The Tract Map is identified as TM 53760 and was prepared by PSOMAS Engineering under the direction of project manager, Carol Burle, and was approved by the City of Los Angeles July 2, 2003.

The project consisted of a conversion of a condominium mixed-use project into a vertical subdivision mixed-use project with ten parcels. Site zoning remained the same and no new construction took place. The project was divided into ten airspace parcels as follows:

Lot 1:	Master Lot	Consists of the actual land the project sits on
Lot 2:	Hotel	Consists of the Hyatt Regency Hotel area
Lot 3:	Hotel	Consists of the Hyatt Regency Hotel area
Lot 4:	Central Plant	Consists of the shipping, receiving, and storage area
Lot 5:	Central Plant	Consists of the ventilation and cooling tower
Lot 6:	Parking	Consists of the parking area onsite
Lot 7:	Retail	Consists of general retail uses and the plaza/garden
Lot 8:	Retail	Consists the Macy's retail use
Lot 9:	Office 1	Consists of a portion of the office tower and is leasable
Lot 10:	Office 2	Consists of a portion of the office tower and is occupied by the Bank of New York

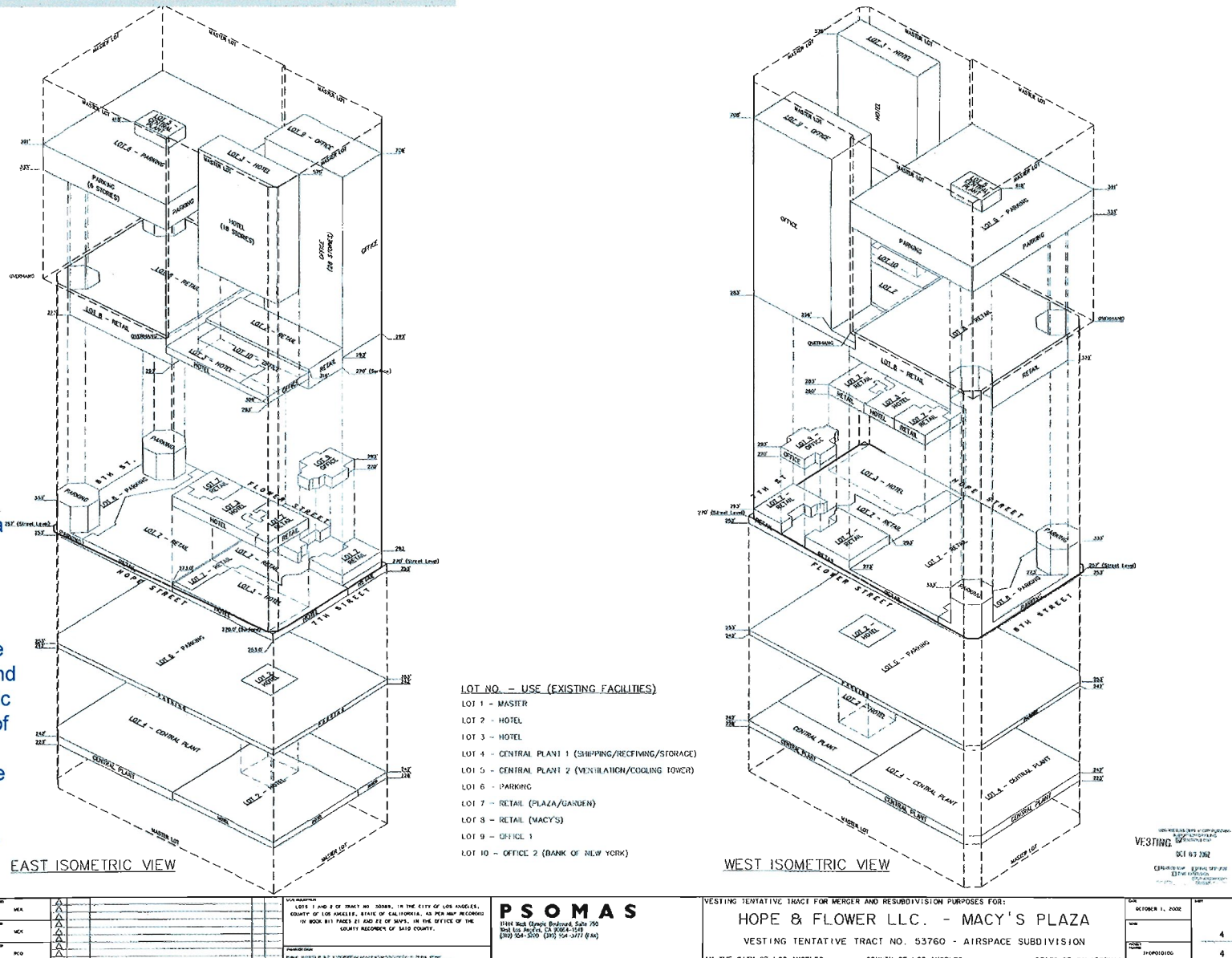
An exploded isometric view of the Macy's Plaza project is available in figure 24. The figure illustrates the location of and the volumetric proportions of the airspace parcels in the project.

Macy's Plaza Goals for Vertically Subdividing

1. Subdivide of a single structure into ten individual parcels for possible individual sale, leasing, and financing;
2. Separate uses and activities;
3. Create a healthy social and economic environment that increases viability of a mixed-use development.

A Tool for Developing Mixed-use Projects

Figure 24:
Macy's Plaza
Vertical
Subdivision
Parcel Map.
The figure
illustrates the
location of and
the volumetric
proportions of
the airspace
parcels in the
project.
Note: Copyright
PSOMAS, 2003



The purpose of vertically subdividing Macy's Plaza was to separate the building into airspace parcels rather than condominium units. This allowed for the overall development to be sold in individual parts to attract a greater number of buyers and property investors while increasing the overall value of the development (Rowe, 2006, pp 20). During the vertical subdivision process the Macy's project encountered difficulties in mapping the project volumetrically and depicting the easements that connect and separate each of the parcels. Difficulty was also encountered while drafting the easements to satisfy the existing utility agencies that provide service to the development. However, the difficulties were accepted in order for the plaza development to be divided into separate parcels, increase flexibility in the way the development was governed, and to promote building reuse and longevity of the existing structure.

DIFFICULTIES IN THE VERTICAL SUBDIVISION PROCESS

Fortunately, for the Macy's Plaza project developer, the concept of vertical subdivision is a widely used subdivision technique in mixed-use projects in the City of Los Angeles (Rowe, 2006, pp 20). In the case of the Macy's Plaza project, unlike the Villas of Higuera project, no education of the local municipality was necessary. In the Los Angeles metropolitan area it is common for both newly constructed and developed condominium mixed use development to be constructed or converted to vertically subdivided air space parcels.

Nonetheless, the mapping process was still complex and time consuming. The Final Tract Map for Macy's Plaza vertical subdivision is twenty-eight pages long as opposed to a traditional tract map which may be as few as four pages. The complexity of vertical subdivision necessitated the length

Difficulties In The Vertical Subdivision Process

1. Complex Mapping Process
2. Existing Utility Administration
3. Drafting the separate yet complementary Covenants, Conditions, & Restrictions along side a Reciprocal Easement Agreement.

of the Tract Map. A majority of the parcels are mapped on more than one map sheet to depict their relationship with the surrounding parcels and the overall development. Multiple sheets were also needed to exhibit the necessary site monuments and easements related to the individual airspace parcels. The mapping process was undoubtedly aided by the experience of PSOMAS Engineering who are unofficially the specialists in vertical subdivision (Rowe, 2006, pp 20).

Complexity in drafting the map was not the only difficulty faced by Macy's Plaza in the vertical subdivision conversion process. Many of the Conditions of Approval (COA) for the Tract Map included conditions concerning the individual maintenance of the existing utility facilities. In the COA the Bureau of Engineering required that "satisfactory arrangements be made with all public utility agencies maintaining existing facilities within the areas being merged" (City of Los Angeles Council Agenda Report, 2003, 2). The Department of Water and Power required that the developer "must provide water easements for each airspace lot" (City of Los Angeles Council Agenda Report, 2003, 4).

Previously it was stated, "as time passes individual metering will no longer be a difficulty in developing vertical subdivision project because it is increasingly becoming common practice most unit development projects". This statement is true for newly constructed and developed projects, but the Macy's Plaza project does not fall into this category. The original utility, water, and power schematic designed were constructed in the 1970s when it was common practice for utilities and other operational facilities to be located as a large unit at or near the base of the building. This practice is synonymous with the design of the Macy's Plaza project.

Therefore, in the vertical subdivision conversion many of the development's utility facilities are confined to separate lots – lots 4 & 5, the Central Plant parcels. Designing the Central Plants to consume individual lots allowed for the creation of a situation where it was easier to draft Reciprocal Easement Agreements between the facilities parcels and the commercial, retail, hotel, parking, and storage parcels they serve. Through Reciprocal Easement Agreements and dedicated easements Macy's Plaza was able to address the Tract Map Conditions of Approval. As with the People Self-Help Housing Corporation's Villas of Higuera project the difficulties encountered during the subdivision process were out-weighed by the benefits achieved through the vertical subdivision conversion.

BENEFITS & GOALS ACCOMPLISHED WITH VERTICAL SUBDIVISION

Benefits of vertical subdivision in the Macy's Plaza case include: increased value and marketability, increased flexibility in internal governance, and building reuse, which has increased the longevity of the existing structure. These benefits may have only occurred through vertical subdivision and the creation of individual airspace parcels.

Vertically subdividing the Macy's Plaza project "enhances the value and marketability" of the individual uses in the development thus "making the part worth substantially more than the whole" (Rowe, 2006, pp 20). In an average market, a property investor is commonly looking for a specific type of use on the property. Many times buying a large mixed condominium development does not seem appealing; however, buying an airspace parcel containing the particular use inside a larger project may seem appealing.

Benefitts Of The Vertical Subdivision Process

1. Increased value and marketability,
2. Increased flexibility in internal governance, and
3. Building reuse, which has increased the longevity of the existing structure.

Vertical Subdivision allows an investor to buy just the property/use that they are interested in. For example, “ a hotel buyer may want just the hotel property and an office investor is likely only interested in the office component” (Rowe, 2006, pp 20). In the case of Macy’s Plaza, “subdividing the uses gave potential buyer the flexibility to purchase the whole property or just the 26-story hotel, the 33-story office tower, or the 349,109 square foot retail portion” (Rowe, 2006, pp 20). Each of the airspace parcels became more attractive as stand alone components, were competitively sought out by a greater number of specific property investors, and received a higher aggregate purchase price.

Along with market flexibility, flexibility in internal governance in regards to the rights and responsibilities was achieved through vertical subdivision. Vertically subdividing the condominium development that existed in the original Broadway Plaza development removed the element of the Homeowners Association as the governing body through out the development. It can be relatively accurately supposed that the individual owner of the master condominium units would want to attend, participate in, or elect HOA board members to allocate spending and collect dues. The vertical subdivision approach “allocates more fairly the costs of operating the building” (Rowe, 2006, pp 20) Instead of HOA oversight the relationship between parcels is regulated through the Reciprocal Easement Agreements. The REA serve as the “legal agreements recorded with the subdivision [that] defines how the lots and uses will function once individual components are sold” (Rowe, 2006, pp 20). The flexibility in both the real estate and property governance work together in making the airspace parcel more attractive to investors and work together to create a more viable mixed-use development.

The final aspect that makes vertical subdivision a benefit to the Macy's Plaza project is the element of adaptive building reuse. In a struggling economy and in a city where newer is always better and space is limited, it is beneficial for an existing development to be revamped to compete in the current market. Macy's Plaza was re-subdivided into a vertical subdivision to break up the overall development into smaller more manageable uses that could be bought and sold competitively in the modern real estate market. Building reuse is also essential in revitalizing many downtown urban cores because development space is limited and structure demolition and re-building is a lofty task that is not without significant financial risks.

CONCLUSION

Without the option of vertical subdivision Macy's Plaza would not have been able to separate the commercial, retail, and hotel uses into separate parcels. Having the uses separated into individual parcels was ideal in this situation because it allowed the development to remain financially feasible in the current economy and market. Separating the uses into a separate air space unit allows it to compete freely in the commercial real estate market. Ultimately, the vertical subdivision process for the Macy's Plaza will continue to yield a development that is more flexible, resilient and viable mixed-use project.

WORKS CITED

- Barren, Jason, Braun, Eric. (2006). Vertical? Horizontal? Defining Mixed-Use Development. American City Business Journal. January 2006. pp24
- Blue Lagoon Hua Hin (2008).Blue Lagoon Resort Hua Hin Property, Site Plan, and Floor Plan. [Online Image]. Retrieved April 28, 2009 from BlueLagoonHuaHin.com. via <http://www.bluelagoonhuahin.com/>
- City of Los Angeles. (2003). City Council Hearing, Macy's Plaza Staff Report for Vesting Tentative Tract Map 53760. July 2, 2003.
- City of Los Angeles. (2003). Conditions of Approval for Vesting Tentative Tract Map 53760, Macy's Plaza. Decision Date July 2, 2003.
- City of San Luis Obispo. (2007). Council Agenda Report: Amending Title 16 or the Municipal Code, The City's Subdivision Regulations. August 21, 2007.
- City of San Luis Obispo. (2007). File Number MS12-05: "Consideration of Tentative Parcel Map creating two Air Space Parcels from on parcel" Subdivision Review Board Staff -Report. October 19, 2007
- Eda- Design Professionals. (2007). Vesting Tentative Parcel Map, SLO 06-0234, Villas at Higuera.
- Eda- Design Professionals. (2008). Parcel Map, SLO 06-0234, Villas at Higuera.

- Farlex. (2009). "Special-Purpose Entity". The Free Dictionary by Farlex. 2009. Retrieved May, 20, 2009 via <http://financial-dictionary.thefreedictionary.com/Special-Purpose+Entity>
- Farnell, Jennifer B. Munsch Hardt Kopf & Harr, P.C. (2006). Key Issues with Mixed-Use Developments. Presented to University of Texas Law School. Dallas, Texas
- Government of British Columbia. (2009) "Air-Space". Rural Subdivision Approvals (2009). Retrieved May 20, 2009 via Http://www.th.gov.bc.ca/da/L2_sub_types.asp?print=true
- Green Solutions. (2009). "Green Lifestyle". Green Solutions.com. (2009). Retrieved May 20, 2009 via <http://www.green-solutions.com/green%20lifestyle.htm>
- Hagerott, Edward C. Jr. (2002). Drafting Construction, Operation and Reciprocal Easement Agreements for Vertical Mixed-Use Projects. The Practical Real Estate Lawyer. November 2002. pp 15 – 25.
- Hills, Clark, Martin & Peterson. (2009). " Information on Condominiums". Hills, Clark, Martin & Peterson (2009). Retrieved May, 20, 2008 via <http://www.hcmp.com/tools/Condominiums.html>
- Hol, Bert. (2008). Air Space Parcels: Subdividing Air. Power Point presentation presented by McEhanney Associates – Land Surveying at UDI Vancouver February 12, 2008.

- HomeSurfer. (2004). "Reciprocal Easements". HomeSurfer Encyclopedia. (2004). Retrieved May, 20, 2009 via http://www.homesurfer.com/encyclopedia/r/reciprocal_easements.html
- Jackson, Scott F. (1990). Vertical Subdivision: New Approach to Mixed-use Development. California Builder. June/July 1990. pp52
- Jones, Sarah. (2007). Mixed-Use Developments: Air Space vs. Strata. Retrieved December 26, 2007 via <http://www.bcrelinks.com/articles/swj1.htm>
- Kozminski, Brian. (2005). Separate Ownership can Provide Many Ways to Profit. Illinois Real Estate Journal. November 2005. pp 27-30
- Kuhn, Michael K. Jackson & Walker LLP. (2006). Mixed-Use Projects: Structure, Operations & Governance. Presented to South Texas College of Law Real Estate Conference June 8-9, 2006. Huston, TX.
- Lammam, Hani. (2007). Air Space Subdivision: What Developers Need to Know. A PowerPoint presentation from CRESSY: Superior Design : Quality Construction.
- Lectric Law Library. (2008) "Real Property". Copyright Lectric Law Library. 1995-2008. Retrieved May 20, 2009 via <http://www.lectlaw.com/def2/q013.htm>
- Nolo. (2009). "Easement". Nolo Glossary. (2009) Retrieved May, 20, 2009 via <http://www.nolo.com/definition.cfm/Term/AF5D76DA-CBE4-4548-9296B84F460521C6/alpha/E/>

Nolo. (2009). "Homeowners Association". Nolo Glossary. (2009) Retrieved May, 20, 2009 via <http://www.nolo.com/definition.cfm/Term/5D1ED2BA-D853-4C4A-A65ED26D8D8AE689/alpha/H/>

Novak, Shonda. (2007). Villa Muse [Image]. Retrieved May 18, 2009 via <http://austinblogger.com/blog/?p=80>

Penrose, James. (2005). Criteria for Special-Purpose Entities In Project Finance Transactions. Standard & Poor's: Global Project Finance Yearbook. October 2005

People's Self Help Housing Corporation. (2009). Retrieved May 20, 2009, via <http://www.pshhc.org/>

ProU. (2003). "Air Rights". Copyright ProU.net, Inc. 1997-2003. Retrieved May 20, 2009 via <http://www.prou.net/utilities/glossary/glossary01.html#a>

ProU. (2003). "Covenants, Conditions, & Restrictions". Copyright ProU.net, Inc. 1997-2003. Retrieved May 20, 2009 via <http://www.prou.net/utilities/glossary/glossary11.html#t>

ProU. (2003). "Fee Simple". (2003). Copyright ProU.net, Inc. 1997-2003. Retrieved May 20, 2009 via <http://www.prou.net/utilities/glossary/glossary04.html#f>

ProU. (2003). "Homeowners Association". Copyright ProU.net, Inc. 1997-2003. Retrieved May 20, 2009 via <http://www.prou.net/utilities/glossary/glossary05.html#h>

ProU. (2003). "Subdivision". Copyright ProU.net, Inc. 1997-2003. Retrieved May 20, 2009 via <http://www.prou.net/utilities/glossary/glossary10.html>

ProU. (2003). "Subdivision Map Act". Copyright ProU.net, Inc. 1997-2003. Retrieved May 20, 2009 via <http://www.prou.net/utilities/glossary/glossary10.html>

Prudential Mountain Properties. (2009). River Ridge Subdivision Map, [Online Image]. Retrieved April 28, 2009 from Pru MountainProperties.com. via <http://www.prumountainproperties.com/files/242413/Subdivision%20Map.jpg>

PSOMAS Engineering. (2003). Vesting Tentative Tract Map 53760, Macy's Plaza.

Rowe, Matt. (2006). Creating Airspace Subdivisions: Segregating a building's uses can make the parts worth more than the whole. Land Development Today. July 2006. pp 20 – 21.

Scavo, James. J. (2002). How to Draft Mixed-Use Community Restrictive Covenants. The Practical Real Estate Lawyer. November 2002. pp 27-45.

Shigley, Paul. (2006). California Goes Vertical: In a state known for sprawl, high rise infill is the surprising new trend. American Planning Association. April 2006. pp 44 – 47

- State of California. (2003) California Government Code: Subdivision Map Act Manual. State of California. Retrieved March 30, 2008, via http://ceres.ca.gov/planning/pzd/sub_ch4.html
- Terasen Gas. (2005). "Building on Innovation: Kelowna Developer Reaches New Heights with Individually Metered Suites". Terasen Gas Company.
- University of Southern California. (2007). Los Angeles Walking Tour, Macy's Plaza. Retrieved May 20, 2009 via http://college.usc.edu/geography/la_walking_tour/new_downtown/macys_plaza_and_hyatt_regency_hotel.html
- Winston, Roger D. (2007). Achieving Vertical and Horizontal Integration – Challenges of Mixed-use Development. Probate and Property. March/April 2007. pp 38 – 43.
- Wilton, Randy. (1997). Distribution Technology Rising to New Heights. Pipeline & Gas Journal. December 1997. pp 26-29
- Van Atta, David H. Hanna & Van Atta. (2003). Mixed-Use, Mixed Ownership Developments: Air Space Subdivision Techniques and Issues. Palo Alto, CA.

