



**JON WALLENSTROM**  
**PRESIDENT**

Jon Wallenstrom is the President of Forest City Hawaii. Jon is leading Forest City's partnership with the State of Hawaii to develop over 2300 homes on the Big Island of Hawaii. The partnership is predicated on providing a mixed-use, mixed-income project in a true partnering relationship between the State and Forest City with each sharing development risks and rewards. The project will bring approximately \$900M in new development to the state. Moreover, Jon is currently leading efforts to develop a \$92 million Community Center on an adjacent 26 acre parcel of land owned by the Department of Hawaiian Home Land.

In addition to leading Forest City's traditional development efforts in Hawaii, Jon is developing two photovoltaic farms. The two projects are slated to start in the first quarter of 2011 and will become the largest and second largest PV farms in Hawaii at 2.5 megawatts and 1.4 megawatts.

Jon has lead Forest City as the company developed four phases in its partnership with the Department of the Navy. Three of the four phases closed under Jon's tenure and the project's size quadrupled to its current value of One Billion Seven Hundred Million (\$1,700,000,000) under development. The development is being conducted on a portfolio of 6500 homes, with the majority being demolished and replaced. In addition to the new construction, hundreds of millions of dollars were being spent on historic renovations and other improvements. The development effort on the Navy project is largely complete as there are less than 500 homes to be delivered over four years on a project that was producing 1000 homes per year.

Under Jon's tenure Forest City's project with the Navy rolled out a sustainability program that has resulted in a number of different awards from the Department of Energy, PV and solar thermal installations, hundreds of thousands of dollars in estimated annual savings, and wide recognition from the Department of Energy as an industry leading builder/developer. Projects currently underway on both the Navy and Marine Projects include two neighborhoods built to LEED standards, nine LEED gold homes and one LEED platinum home, a LEED silver office building, a 218 home community of individual homes built to LEED standards, and three net-zero energy homes.

Prior to working with Forest City, Jon founded A&E Real Estate, LLC in 2003. The company was involved in a number of projects but most notably, A&E Real Estate lead a condominium conversion for a Carr Capital and Carlyle Group venture. The project, with revenues of \$78 million, was extraordinarily successful and more than doubled the partner's money in less than one year.

Prior to owning his own business, Jon Wallenstrom led Archstone Communities Trust's development efforts in Washington, DC. As Archstone's Group Vice President, Jon developed over \$650 million in luxury apartment communities and has developed over \$870 million in the course of his career. Jon started Archstone's Washington, DC office in late 1997 and by 1999 had one of the deepest development pipelines in Washington, DC. Jon's experience extends to all of Washington's submarkets, as well as the Boston, Philadelphia, and Richmond markets. Jon has developed over 4,000 luxury multi-family units in the Mid-Atlantic region.

Prior to joining Archstone, Jon was with JPI Development where he helped open their Washington, DC office. Jon is currently a member of the Honolulu ULI District Council. He has been a member of the Urban Land Institute's Washington DC District Council where he was deeply involved in Urban Plan, a program where real estate executive work with high school students to teach them about the process and choices involved in changing the built environment. Jon also worked with the DC Public Schools to weigh proposals for privatizing underutilized school facilities. He currently serves as a member of the Hawaii Business Roundtable and as a member of the board of the Honolulu Theatre Center and the board of Housing Hawaii. He has served as a member of the Johns Hopkins University Real Estate Institute and has served on the Board of Directors of the Landowners Economic Alliance for the Dulles Extension of Rail (LEADER) and as a member of both the Northern Virginia and Suburban Maryland Building Industry Association Multifamily Council. Jon holds a BA from Princeton University.

Under Jon's leadership Forest City has won a number of awards including the "Navy Installation Housing Team of the Year" award for two consecutive years (2006 and 2007) and a 2007 "Project of the Year" merit award from *Multifamily Executive*. The Navy project has also received numerous awards recognizing historic renovation efforts. Jon's projects on the mainland have won awards for design and performance and have been recognized by the Maryland Office of Smart Growth as positive contributors to the communities in which they were built. Awards include: "Building Industry Association Best Mid-Rise, 2002;" "Fastest Lease-Up Pace Suburban Maryland, 2000 and 2002;" "Excellence in Landscaping, 2000 and 2002;" "Landmark Mid-Atlantic Apartment Sale, 1999;" "Landmark Apartment Sale, 1998;" "Landmark Apartment Sale, 1997." Jon also received the "2000 Archstone Award for Development" offered to the developer who makes the most significant contribution to the company.

Merrill Lynch, Pierce, Fenner &amp; Smith Incorporated

October 10, 2010

Jon C. Wallenstrom  
President  
Forest City Hawaii  
5173 Nimitz Road  
Honolulu, Hawaii 96818

Dear Mr. Wallenstrom:

It is our pleasure to provide our insight into how public financing benefits from vested approvals of meaningful durations. As a means of introduction, Bank of America Merrill Lynch is one of the world's largest financial institutions, serving individual consumers, small and middle market businesses and large corporations with a full range of banking, investing, asset management and other financial and risk-management products and services. The company serves clients in more than 150 countries and has relationships with 99 percent of the U.S. Fortune 500 companies and 83 percent of the Fortune Global 500. Bank of America Corporation stock (NYSE: BAC) is a component of the Dow Jones Industrial Average and is listed on the New York Stock Exchange.

As you and your company are well aware, the BofA Merrill Lynch Municipal Markets Group is a market leader that has helped to create billions of dollars of public infrastructure and has been responsible for financing many public-private ventures, including almost \$2 billion of development with various Forest City entities. In addition, BofA Merrill Lynch Municipal Markets is also the leading underwriter of municipal securities issued by various issuers in the State of Hawaii. While BofA Merrill Lynch considers Forest City to be one of the leading developers of public-private ventures in the country, the Firm has also helped a number of its other clients to finance very large transactions that have provided benefits to cities, states, and governmental entities.

A small sample of transactions closed by the BofA Merrill Lynch Municipal Markets Group includes:

- The Ohana Military Communities venture between Forest City and the Department of the Navy – value \$1.3 billion.
- The Stapleton Airport Redevelopment with Forest City – value \$500 million.
- Army Hawaii with Actus Lend Lease – value \$1.5 billion.
- Pacific Beacon Communities (San Diego) with Clark Realty – value \$300 million.

Each of the transactions listed above has provided significant benefits to the jurisdictions in which they were built. They have injected money into their respective local economies, provided needed facilities, and saved taxpayers significant expense by allowing the capital markets to help finance improvements. They have also all benefitted from their size and the fact that they were,

Merrill Lynch, Pierce, Fenner &amp; Smith Incorporated

or will be, built out over a number of years. If the size or duration of any of these projects was reduced, taxpayer expense would increase and the number of improvements would decrease.

We have been asked by you to provide our thoughts or concerns regarding the relationship between the size and duration of projects and successful financing structures. It has generally been our experience that longer duration, or phased, developments for large sized projects are most advantageous to capital markets financings. This provides the necessary flexibility required by investors today to provide funding for project build outs during markets that will fluctuate in terms of economic cycles and required rates of returns. In just the past fifteen years, two very significant economic and market bubbles have been followed by two significant recessions amid significantly volatile credit markets. Large development projects that are undertaken today should consider that economic volatility may continue and that the duration of such projects should be long enough to permit appropriate financial capital markets debt structures and products to be implemented and executed accordingly. As we have experienced in our past financings with Forest City, there are a number of financial tools that can be helpful to large public-private ventures that will ultimately help create great public goods such as roads, schools, affordable housing, or other improvements.

As you are aware, our financing structures are generally comprised of equity and debt components that are required to be paid back along with required rates of returns. It has been our experience that such payback periods are required to be long enough to enable the development of the project itself and retirement of the financing at rental revenues that make the project economically viable and desirable. The size and diversity of the project will help from that perspective. If financing is paid back over a number of years by a project with a diverse mix of products, there is a much higher likelihood that it will be returned and the capital markets rates of returns will be minimized. Lower costs of capital will generally provide for more interesting projects and greater improvements, thereby creating more jobs and the highest probability of success.

I hope you find these thoughts helpful. I look forward to discussing how Bank of America Merrill Lynch can be of assistance to Forest City in providing capital markets financing for its Hawaiian development project.

Sincerely,



Philip Korot  
Managing Director

# FORESTCITY

**Introduction:**

Established in 1920, Forest City Enterprises is a national real estate company with a history of creating long-term value, and is principally engaged in the ownership, development, acquisition and management of premier commercial, mixed-use, retail, science & technology and residential real estate throughout the United States. Forest City enjoys an unparalleled track record in long-term, complex, mixed-use development strategies.



Publicly traded (NYSE: FECA & FCEB) for nearly fifty years, with approximately \$11.8 billion in assets, Forest City is a traditional C corporation, not a Real Estate Investment Trust (REIT), and thus is able to focus on long-term objectives, rather than short-term dividend requirements. Forest City's diverse portfolio includes office & research buildings, retail centers, apartments, smart growth communities, and a range of large scale, mixed-use projects in 19 states and the District of Columbia. Operating a portfolio that is diversified by both geography and product type, Forest City offers a national breadth and local depth of real estate expertise that is arguably unmatched by any other firm in the United States.

Forest City's executive team has decades of business, real estate, and leadership experience. The firm's headquarters are in Cleveland with regional offices maintained in some of the nation's most important core markets. In comparison to New York, Los Angeles, Washington DC and other large markets, Honolulu is not a core Forest City market however with approximately 230 local employees, Honolulu is the home of company's third largest office.



**Forest City Hawaii:**

Forest City Hawaii with its Military and non-Military ventures has become one of the twenty largest companies in the State of Hawaii. Forest City has local in-house experience in development, finance, accounting, construction, property management, and maintenance. In addition to our efforts on Kamakana Villages, we are currently building homes in the fourth phase of a \$1.7 Billion, 50-year public private partnership with the United



States Navy. Forest City Hawaii has constructed over 2300 homes and renovated in excess of 1,300 homes in various locations on Oahu and Kauai. The award winning homes bring modern technology including solar powered water heaters and energy efficient construction to the rigorous demands of our nation's Sailors and Marines.

In addition to our Military Housing projects, Forest City is developing two renewable energy projects that will be two of the largest in the state. Our Pearl City Peninsula Photovoltaic Project and our Kapolei Photovoltaic Project will bring approximately four megawatts of electric to West Oahu.

These Hawaii-based projects require a long-term commitment to the State of Hawaii and are reflective of the company's core strength. Forest City through patient and careful development has worked with cities and states to transform the built environment in a manner that is thoughtful and sympathetic to the environment and the goals of the jurisdiction.

# FORESTCITY

In the case of both our partnership with the Department of the Navy and Kamakana Villages, we are partnering on projects that will be financed and constructed over a number of years. This assumption allows Forest City and its



partner, whether that be the Department of the Navy or the State of Hawaii, to use important financial resources to accomplish the desired public goals. In the case of the project with the Department of the Navy, the fifty year duration allows us to float bonds that are financing the redevelopment of a 6500 home portfolio of military housing. In the case of Kamakana Villages, a longer duration will give us the flexibility to use tools to provide affordable housing to West Hawaii.

The idea that successful public private partnerships are supported by public financing options that are somewhat unique and that occur over a longer duration than ten years is not unique. While Forest City has a longer history of partnering with jurisdictions and public bodies than arguably any other developer in the country, jurisdictions across the country are accomplishing public goals by partnering with the private sector. Ten years is simply not adequate for a successful public private venture to receive financing and Hawaii has denied itself an important tool that enlightened governments are using across the country to accomplish positive change. As an analogy, home mortgages commonly span thirty years. The financing of any development project and particularly a development project that is attempting to address the difficult problem of affordable housing has less financing flexibility in Hawaii than a simple home mortgage.

The following highlights three public private ventures that Forest City is developing or has completed. None of these developments would occur in Hawaii under an incremental development scheme.

## University Park at MIT

Cambridge, Massachusetts



University Park at MIT has been an ambitious and rewarding undertaking for Forest City and our institutional and public partners, the Massachusetts Institute of Technology and the City of Cambridge. The University Park Campus is a 27 acre, 2.3 million square foot mixed-use urban campus revitalization featuring 1.5 million square feet of advanced research and technology buildings, primarily for the life sciences industry, as well as traditional office space, 531 apartment units, retail services, a hotel & conference center, parking facilities, and a series of landscaped parks and open spaces that together have brought new vitality to a previously desolate section of Cambridge. A twenty-five year project and partnership allowed Forest City, MIT, and Cambridge to benefit from financing which allowed the project to proceed.

University Park today is fully built out and 100% leased, supporting more than 3,000 technology-focused employees. Total project cost was approximately \$700M, and each building was independently financed through traditional banking relationships, with significant equity invested by Forest City.

# FORESTCITY

## Stapleton Airport Redevelopment

Denver, Colorado

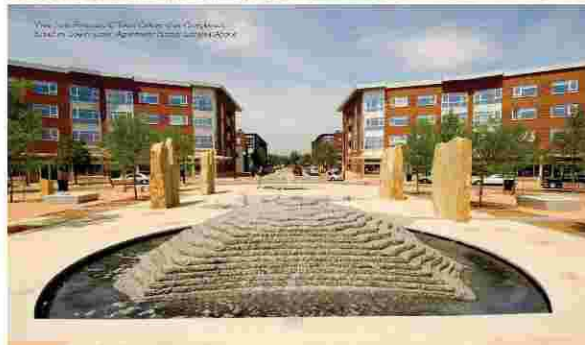
Forest City's redevelopment of the former Stapleton International Airport in Denver is a model of sustainability, smart growth, mixed-use and diversity. It is a premier example of Forest City's strategy at work in large-scale mixed-use developments that make a difference in cities like Denver.



Most of all, Stapleton exemplifies Forest City's expertise in building and sustaining public/private partnerships in the communities in which we work.

As an urban developer that focuses on growth markets, Forest City was intrigued by the scope of this project and its possibilities. In a competitive process to select a master developer, Stapleton Development Corporation (SDC) chose Forest City as its development partner in 1998 based on our experience in all aspects of development. Forest City also brought access to capital, national real estate

development expertise and a commitment to affordable housing, sustainable development and minority participation. The SDC Forest City partnership is in its twelfth year and although only about one third of the project is complete, it has already received numerous planning awards and accolades. To date, Forest City has purchased 1,264 acres and is well into \$4 billion development project jointly envisioned by the Denver community and Forest City.



# FORESTCITY

## Metro Tech

*Brooklyn, New York*

Brooklyn’s MetroTech is a \$2 billion, 16-acre public-private commercial urban campus revitalization program which includes office, retail, restaurants and academic office space. One of the defining attributes of the site is a two-acre park-like open space called The Commons, which provides a campus feel to the project. Redevelopment of this area was under consideration as far back as the mid-1970s. Forest City, which had already completed Pierrepont Plaza, its first building in the downtown Brooklyn area, was named as the master developer in 1988. The last two buildings, Nine MetroTech Center South and Twelve MetroTech Center, were completed in Spring 2003 and Spring 2005, respectively. Forest City and the Borough of Brooklyn implemented this important project over seventeen years and transformed Brooklyn and helped transform the regional office market by creating an alternative office destination to Manhattan.



*Opposite Page: 330 Jay Street/MetroTech 12; Above Left: MetroTech 9; Above Right: Aerial View from 2003 (MetroTech 9 & 12 Can be Seen Under Construction)*





**Conclusion:**

Forest City and the State of Hawaii have a unique opportunity in Kamakana Villages to accomplish an important public goal. West Hawaii has an affordable housing problem and Forest City has worked carefully to develop a plan that will address this issue in a manner that is elegant and has strong public support. The requirement for an incremental approval is a major obstacle in realizing the vision that is before the Land Use Commission. We would ask the Land Use Commission to not eliminate important financing options for Kamakana Villages and not hold this plan to a ten year incremental approach.



## SOHRAB RASHID

*Principal/Owner*



Mr. Rashid is a registered Traffic Engineer in California with over 20 years of experience in transportation planning and traffic engineering. He has served as Principal in Charge or Project Manager for numerous high-profile transportation projects throughout Northern California and Hawaii. Mr. Rashid has managed or directed the preparation of traffic impact analysis reports, project development studies for state facilities, circulation elements for general and specific plans, regional transportation plans, transit facilities, and traffic operations reports. His varied experience also includes travel demand forecasting, traffic micro-simulation, planning and design for non-automobile modes, bus rapid transit, travel surveys, transit station area planning, and traffic calming. For the past eight years, he has served as the City of Saratoga Traffic Engineer through an on-call contract and directed the Mayor and City Council on all transportation issues. He is currently the manager of the firm's San Jose office, oversees projects in the South San Francisco Bay

Area, the Central Coast area of California, and Hawaii, and serves as a member of the firm's committee for international work. In addition to his professional work, Mr. Rashid regularly serves a guest lecturer at San Jose State University for both transportation engineering and planning courses teaching fundamental concepts and state-of-the-art practice in operations and travel demand forecasting.

### EDUCATION

Bachelor of Science in Mechanical Engineering, San Jose State University, 1988

### PROFESSIONAL AFFILIATIONS

- Institute of Transportation Engineers (ITE) – 1988 to Present
- South Bay Transportation Officials Association – ITE Chapter (Board Member 2002-2004, President 2004)
- Women's Transportation Seminar (Secretary-Sacramento Chapter 1996-1997)

### PROFESSIONAL REGISTRATION

Licensed Traffic Engineer, State of California (TR1845)

### PUBLICATIONS, PRESENTATIONS, AND UNIVERSITY INSTRUCTION

- *Sustainable Transportation and Land Use Planning in a Changing Environment*, Nanning, China Sustainable Transportation Conference, December 2010
- *Estimating Trip Generation for Transit-Oriented Developments*, ITE Technical Conference, March 2007
- Co-Instructor for Fehr & Peers Academy – Transportation Impact Analyses, 2005 to Present
- Guest Lecturer, San Jose State University – Transportation Planning Graduate Course, Transportation Engineering Undergraduate Course, 2004 to Present
- Panelist for Transportation and Land Use Interaction – Moderated by California State Senator Joe Simitian, 2006

### AREAS OF EXPERTISE

Traffic Engineering • Transportation and Land Use Planning • Transit Station Area Planning • Parking Studies • Residential Traffic Management • Bicycle and Pedestrian Planning • Travel Demand Forecasting • Traffic Operations and Simulation



## SELECT PROJECT EXPERIENCE

### **Tanggu Ceramic District Sustainability Plan (Tianjin, China)**

Mr. Rashid is leading the Fehr & Peers effort to prepare a detailed program to enhance the sustainability of a proposed redevelopment project in the Ceramic District of Tanggu in Tianjin, China. The mixed-use project is located within the larger planning area of Binhai New City and involves the development of new residential and commercial uses, a revitalized ceramic shopping district, and a new park system. The transportation elements of the sustainability study are included in an overall simulation model, and the concepts under evaluation include, but are not limited to, car and bike share programs, an internal shuttle system, transit-ready accommodations, and enhanced pedestrian and bicycle networks. The model includes estimated reductions in vehicle kilometers of travel (VKT) and estimated implementation/operating costs.

### **Waikiki Livable Communities Project (Oahu, Hawaii)**

Mr. Rashid provided input as part of a multi-disciplinary team headed by Wilson-Okamoto Associates to improve circulation in the Waikiki area as part of an overall plan to enhance livability for residents in and visitors. Issues addressed included pedestrian and bicycle facilities, traffic calming, urban design, and roadway network modifications. Mr. Rashid worked with the planning team and the Mayor of Honolulu to solicit input from key stakeholders, the general public, and City representatives during several multi-day charettes. Knowledge of the local transportation system was used in a collaborative environment to develop several planning visions, as well as potential near-term and long-term solutions. Examples include pedestrian walkways on the beach; pedestrian bridges, conversion of one-way to two-way streets, local shuttles, curb extensions, modified street cross-sections to improve access to planned bus rapid transit facilities, and centralized tour group and baggage facilities.

### **NASA Research Park Master Plan and EIS (Mountain View, California)**

Mr. Rashid served as the Project Manager for the preparation of the EIS transportation section for the proposed development of NASA Research Park (NRP) located at Moffett Field. NASA is proposing to develop up to 4.5 million square feet of office, R&D, university research/classroom, and museum space plus on-site housing for students and employees. The potential impacts of five alternatives were analyzed by the project team at intersections in the Cities of Mountain View and Sunnyvale and on the freeway segments of SR 237, U.S. 101 and SR 85, as well as on segments up to 25 miles from the site. Impacts were identified for both near-term and cumulative conditions and included an evaluation of transit, bicycle and pedestrian facilities. A comprehensive Transportation Demand Management (TDM) program was developed to reduce single-occupant vehicle trips and greenhouse gas (GHG) emissions. Upon full implementation, this program will be the most aggressive in the south Bay Area.

### **Jurong Lake District Sustainability Plan (Singapore)**

Mr. Rashid is leading Fehr & Peers' effort to prepare the transportation element of a sustainability model for a large-scale, mixed-use project in the Jurong Lake District of southwest Singapore. The focus of this project includes the redevelopment of the area around three existing Mass Rapid Transit (MRT) stations, the development of several resort villages, and creation of five new "edutainment" attractions. The total development includes approximately 2,550,000 sq. meters (27,000,000 sq. ft.) of gross floor area including 2,400 dwelling units and a mix of office, business park and retail uses. This effort is unique to our sustainability studies based on the already high use of non-auto travel modes, the high densities proposed within the Jurong East transit station area, and the distinctive trip making characteristics of the attractions and resorts. The study will culminate in a comprehensive transportation program to enhance project sustainability by reducing automobile use; overall, the entire development will be more accessible to pedestrians, bicyclists, and transit and better connected to the adjacent community.

**Envision 2040 General Plan Update (San Jose, California)**

Fehr & Peers is completing the technical analysis, background report, and policy development for the Envision San José 2040 General Plan (GP) Circulation Element update with Mr. Rashid serving as Project Manager. This process will involve a comprehensive evaluation of existing transportation conditions for 100 roadway segments, validation and enhancement of the City's travel demand model using the CUBE Voyager software, general analysis of five land use alternatives, detailed analysis of the preferred alternative, and input to policies for all travel modes and transportation elements. A substantive part of this effort will involve extensive travel demand model enhancements including the addition of smart growth sensitivity, greenhouse gas emission output, run-time efficiencies, and congestion sensitivity. We will also use direct transit ridership modeling during the alternatives analysis process. A primary focus of the update will be to further promote a balanced approach to transportation for all modes and evaluating changes to the City's level of service and parking policies. Mr. Rashid is serving as Project Manager for this project.

**Ewa Transportation Impact Fee Update (Oahu, Hawaii)**

Fehr & Peers is preparing the five-year update to the Ewa Transportation Impact Fee for the City & County of Honolulu. The Ewa region has been slated as the primary growth area for the island of Oahu and requires a substantial investment in roadway infrastructure to support the planned development of residential, office, industrial and supporting commercial uses. Per City ordinance, the purpose of the study was to update the required roadway improvements for Year 2020 conditions and re-calculate the resulting impact fee. The process involved an update of existing or baseline conditions and development of a sub-area travel demand forecasting model based on the regional model maintained by the Oahu Metropolitan Planning Organization (OahuMPO). Future growth was estimated based on input from area developers and City/County planning staff. The model was used to forecast future traffic volumes and to identify future operational deficiencies. Cost estimates for the improvements were prepared by Belt Collins Hawaii and the proposed fees for each land use type were calculated and submitted for consideration by the City Council project.

**Transit Station Area Plan and EIR (Milpitas, California)**

Fehr & Peers assisted with the development of the specific plan and the subsequent EIR transportation section for the Transit Area Plan surrounding the future Great Mall Parkway/Montague Expressway BART station in Milpitas. As Principal in Charge, Mr. Rashid directed the analysis of the plan area that is expected to include over 5,000 dwelling units and over 2,000,000 square feet of commercial, retail and industrial development. Mr. Rashid assisted with the transportation elements of the Specific Plan and analyzed potential impacts at over 50 intersections in Milpitas and San Jose. Future traffic projections were developed using the Santa Clara Valley Transportation Authority (VTA) model, and internalization of project-generated trips was included in the analysis. Impacts to bicycle, pedestrian and transit facilities were also addressed, along with an assessment of greenhouse gas emissions.

**Citywide Travel Demand Forecasting Model (Morgan Hill, California)**

Mr. Rashid served as Principal in Charge for the development of a citywide travel demand forecasting model for the City of Morgan Hill using the TransCAD software package. The base year model was calibrated and validated well within industry standard specifications within the City's sphere of influence, and utilized the land use information provided by the Valley Transportation Authority (VTA) for the City of Gilroy and the Coyote Valley area in south San Jose. Refined traffic forecasts were used to identify required roadway infrastructure improvements in 2015 and 2030, including those needed to support development planned in adjacent jurisdictions.



# TRIP GENERATION FOR SMART GROWTH

PLANNING TOOLS FOR THE SAN DIEGO REGION

# BOARD OF DIRECTORS



The 18 cities and county government are SANDAG serving as the forum for regional decision-making. SANDAG builds consensus; plans, engineers, and builds public transit; makes strategic plans; obtains and allocates resources; and provides information on a broad range of topics pertinent to the region's quality of life.

**CHAIR**

Hon. Lori Holt Pfeiler

**FIRST VICE CHAIR**

Hon. Jerome Stocks

**SECOND VICE CHAIR**

Hon. Jack Dale

**EXECUTIVE DIRECTOR**

Gary L. Gallegos

**CITY OF CARLSBAD**

Hon. Matt Hall, Councilmember  
(A) Hon. Bud Lewis, Mayor  
(A) Hon. Ann Kulchin, Mayor Pro Tem

**CITY OF CHULA VISTA**

Hon. Cheryl Cox, Mayor  
(A) Hon. Rudy Ramirez, Deputy Mayor  
(A) Hon. Steve Castaneda, Councilmember

**CITY OF CORONADO**

Hon. Carrie Downey, Councilmember  
(A) Hon. Al Ovrom, Mayor Pro Tem  
(A) Hon. Michael Woiwode, Councilmember

**CITY OF DEL MAR**

Hon. Crystal Crawford, Councilmember  
(A) Hon. Mark Filanc, Councilmember  
(A) Hon. Richard Earnest, Mayor

**CITY OF EL CAJON**

Hon. Mark Lewis, Mayor  
(A) Hon. Jillian Hanson-Cox, Councilmember

**CITY OF ENCINITAS**

Hon. Jerome Stocks, Councilmember  
(A) Hon. Teresa Barth, Councilmember  
(A) Hon. Dan Dalager, Mayor

**CITY OF ESCONDIDO**

Hon. Lori Holt Pfeiler, Mayor  
(A) Hon. Sam Abed, Councilmember

**CITY OF IMPERIAL BEACH**

Hon. Jim Janney, Mayor  
(A) Hon. Patricia McCoy, Mayor Pro Tem  
(A) Hon. Jim King, Councilmember

**CITY OF LA MESA**

Hon. Art Madrid, Mayor  
(A) Hon. Mark Arapostathis, Councilmember  
(A) Hon. David Allan, Vice Mayor

**CITY OF LEMON GROVE**

Hon. Mary Teresa Sessom, Mayor  
(A) Hon. Jerry Jones, Mayor Pro Tem  
(A) Hon. Jerry Selby, Councilmember

**CITY OF NATIONAL CITY**

Hon. Ron Morrison, Mayor  
(A) Vacant  
(A) Hon. Rosalie Zarate, Councilmember

**CITY OF OCEANSIDE**

Hon. Jim Wood, Mayor  
(A) Hon. Jerry Kern, Councilmember  
(A) Hon. Jack Feller, Councilmember

**CITY OF POWAY**

Hon. Don Higginson, Mayor  
(A) Hon. Jim Cunningham, Councilmember  
(A) Hon. Carl Kruse, Deputy Mayor

**CITY OF SAN DIEGO**

Hon. Jerry Sanders, Mayor  
(A) Hon. Anthony Young, Councilmember  
(A) Hon. Sherri Lightner, Councilmember  
Hon. Ben Hueso, Council President  
(A) Hon. Marti Emerald, Councilmember  
(A) Hon. Todd Gloria, Councilmember

**CITY OF SAN MARCOS**

Hon. Jim Desmond, Mayor  
(A) Hon. Hal Martin, Vice Mayor  
(A) Hon. Rebecca Jones, Councilmember

**CITY OF SANTEE**

Hon. Jack Dale, Councilmember  
(A) Hon. Hal Ryan, Councilmember  
(A) Hon. John Minto, Councilmember

**CITY OF SOLANA BEACH**

Hon. Lesa Heebner, Deputy Mayor  
(A) Hon. Dave Roberts, Councilmember  
(A) Hon. Mike Nichols, Councilmember

**CITY OF VISTA**

Hon. Judy Ritter, Mayor Pro Tem  
(A) Hon. Bob Campbell, Councilmember  
(A) Hon. Steve Gronke, Councilmember

**COUNTY OF SAN DIEGO**

Hon. Pam Slater-Price, Chairwoman  
(A) Hon. Greg Cox, Supervisor  
(A) Hon. Ron Roberts, Chair Pro Tem  
Hon. Bill Horn, Vice Chair  
(A) Hon. Dianne Jacob, Supervisor

**ADVISORY MEMBERS**

**IMPERIAL COUNTY**

Hon. Wally Leimgruber, District 5 Supervisor  
(A) Hon. David Ouzan, Councilmember

**CALIFORNIA DEPARTMENT OF TRANSPORTATION**

Cindy McKim, Director  
(A) Laurie Berman, District 11 Director

**METROPOLITAN TRANSIT SYSTEM**

Harry Mathis, Chairman  
(A) Hon. Ron Roberts  
(A) Hon. Jerry Selby

**NORTH COUNTY TRANSIT DISTRICT**

Hon. Bob Campbell, Chairman  
(A) Hon. Carl Hilliard, Planning Committee Chair  
(A) Hon. Dave Roberts, Monitoring Committee Chair

**U.S. DEPARTMENT OF DEFENSE**

CAPT Keith Hamilton, USN, CEC,  
Southwest Division Naval Facilities Engineering Command  
(A) CAPT James W. Wink, USN, CEC  
Southwest Division Naval Facilities Engineering Command

**SAN DIEGO UNIFIED PORT DISTRICT**

Scott Peters, Commissioner  
(A) Stephen Padilla, Commissioner

**SAN DIEGO COUNTY WATER AUTHORITY**

Mark Muir, Director  
(A) Howard Williams, Director  
(A) Gary Croucher, Director

**SOUTHERN CALIFORNIA TRIBAL CHAIRMEN'S ASSOCIATION**

Hon. Edwin 'Thorpe' Romero,  
Barona Band of Mission Indians  
Hon. Allen Lawson,  
San Pasqual Band of Diegueño Indians  
(A) Denis Turner, SCTCA Executive Director

**MEXICO**

Hon. Remedios Gómez-Arnau  
Cónsul General of Mexico  
Hon. Martha E. Rosas,  
Deputy Cónsul General of Mexico

As of June 3, 2010

# ACKNOWLEDGEMENTS

---

## SANDAG COMMITTEES AND OTHER WORKING GROUPS

---

Regional Planning Committee

Transportation Committee

San Diego Regional Traffic Engineers Council

Cities/County Transportation Advisory Committee

San Diego Regional Planning Technical Working Group

San Diego Institute of Transportation Engineers

Transportation Capacity and Mobility Task Force

Smart Growth Trip Generation Study

Informal Working Group:

Maureen Gardiner, City of San Diego

Ann French Gonsalves, City of San Diego

Samir Hajjiri, City of San Diego

Gary Halbert, City of Chula Vista

Dave Kaplan, City of Chula Vista

## SANDAG STAFF

---

Gary Gallegos, Executive Director

Charles "Muggs" Stoll  
Director of Land Use and Transportation Planning

Bob Leiter, FAICP  
Director of Land Use and Transportation Planning (retired)

Coleen Clementson, Principal Planner

Clint Daniels, Manager of Regional Information Systems

Alex Estrella, Senior Transportation Planner

Mike Calandra, Senior Transportation Modeler

Rick Curry, Senior Transportation Modeler

Christine Eary, Associate Regional Planner,  
Project Manager

Andy Gordon, Research Analyst II

## CONSULTANT TEAM

---

### Fehr & Peers

Jerry Walters, PE, Principal, Chief Technical Officer

Richard Lee, PhD, AICP, Associate, Project Manager

Mark Feldman, Transportation Engineer

Chris Gray, AICP, Associate

Lisa Levasseur, EIT, Transportation Engineer

Mackenzie Watten, EIT, Transportation Engineer

### VRPA Technologies

Erik Ruehr, PE, Director of Traffic Engineering

### KTU+A

Mike Singleton, AICP, ASLA, Principal





# TABLE OF CONTENTS

---

**INTRODUCTION AND STUDY FINDINGS ..... 1**

    Background ..... 1

    Study Contents ..... 1

    Study Findings..... 2

**THE MIXED-USE METHOD: CALCULATING TRIP GENERATION FOR SMART GROWTH SETTINGS..... 1**

    Background ..... 1

    Development of the Mixed-Use Method ..... 2

    Method Structure and Outputs ..... 2

    Probabilities ..... 3

    Mixed-Use Method Validation..... 4

    Application of the Mixed-Use Method for San Diego Sites ..... 5

        Study Areas ..... 5

        Data Collection ..... 6

        Analysis: SGOAs ..... 6

        Analysis: Small Mixed-Use/TOD Sites With Counts ..... 7

        Additional Comments..... 8

## TABLE OF CONTENTS (CONT'D)

---

### APPENDICES

- 1 Locations of Counted Sites
- 2 SANDAG Raw Trips Calculation Backup
- 3 Vehicle Trip Reduction for SGOAs
- 4 Data Sources for SGOA Land Use Data

## LIST OF FIGURES AND TABLES

---

### Figures

1	Net Vehicle Trip Reduction for SGOAs With Greater Than 100 Survey Records .....	8
---	---	---

### Tables

1	Mixed-Use Method Analysis for SANDAG Sites .....	9
---	--	---



# INTRODUCTION AND STUDY FINDINGS

---

## BACKGROUND

Smart growth developments are generally perceived to generate fewer vehicle trips and less demand for parking as compared to conventional suburban developments due to an increased number of trips via transit, walking, or bicycling. However, there has been a lack of empirical data to demonstrate this in the San Diego region. Current trip generation and parking supply guidelines are based on conventional suburban development, perhaps imposing a burden on developers and jurisdictions to provide more roadway and parking capacity than is necessary in smart growth environments. Application of identified trip generation and parking demand rates appropriate for smart growth development could result in cost savings for jurisdictions, developers, homebuyers, and renters.

SANDAG'S *Regional Comprehensive Plan (RCP)*, adopted in 2004, offers a vision for change in the San Diego region that strongly emphasizes sustainability and smart growth. *Trip Generation for Smart Growth: Planning Tools for the San Diego Region* is called for as a strategic initiative of the RCP and is a component of the SANDAG Smart Growth Toolbox; it is intended to be a resource for local agencies as they implement smart growth development.

The results of the study are intended to provide a richer, more accurate accounting of vehicle trip reduction associated with mixed-use and transit-oriented development (TOD) in smart growth environments, compared to current local and national methods of calculating trip generation. This information is intended to supplement data in the *San Diego Traffic Generators Manual*, published by SANDAG in 2000, and the accompanying *Not-so-Brief-Guide to Trip Generation*, published by SANDAG in 2002. Whereas the *Not-so-Brief-Guide* suggests application of generic vehicle trip reductions of 5 percent for locations within one-quarter mile of transit and 10 percent for mixed-use, the method outlined in this study accounts for the uniqueness of each smart growth development site and proposes reductions based on the specific context in which each site is situated.

## STUDY CONTENTS

This study presents an overview of a mixed-use development trip generation method (Mixed-Use Method) recently developed by a team led by Fehr & Peers to improve vehicle trip generation forecasts for mixed-use developments. This method was applied to a series of smart growth sites in the San Diego area. The results are presented in this study.

This study is accompanied by a spreadsheet tool designed for estimation of trip generation in smart growth settings. The spreadsheet tool applies the Mixed-Use Method described within this study. The spreadsheet tool, as well as the study, are available as a resource for local jurisdictions if they choose to use it. Local jurisdictions are under no obligation to use the tool or the study in their development approval processes.

## STUDY FINDINGS

The study found that at both the site level and at the Smart Growth Opportunity Area (SGOA) level, reductions in vehicle trips were observed for smart growth development, relative to the number of trips that would be expected to occur in typical suburban developments. These findings suggest that trip generation will generally be overestimated at smart growth developments if appropriate trip reductions are not included in the calculations.

The study also identified and validated a method to account for the amounts of trip reduction attributable to smart growth development forms. This Mixed Use Method, initially developed for the United States Environmental Protection Agency (EPA) and the Institute of Transportation Engineers, accounts for the degree to which mixed-use sites internally capture travel and the extent to which smart growth site design and context result in walking, biking, and transit use. The study validated the Mixed-Use Method for use within the San Diego region by comparing the method's trip generation estimates to actual travel data from twenty of the region's SGOAs and six smaller mixed-use/transit-oriented development (TOD) sites.

It should be noted that use of this method was validated with data collected at sixteen smart growth sites nationwide, as well as with data from the sites in the San Diego region mentioned above. At the time of printing, smart growth sites suitable for data collection could not be identified in the rural, coastal, and North County areas of the region. Further data collection in a variety of smart growth settings throughout the region would help to enhance understanding about trip generation in smart growth areas, particularly among coastal communities where smart growth development takes place, and in those SGOAs designated as Rural Villages.

The Method represents a dramatic improvement over current methods of estimating trip generation for smart growth developments. The method produces reliable, though still somewhat conservative, estimates of trip generation that are highly sensitive to the context of any given development. Specifically, the trip generation method accounts for the degree to which a development can be considered "smart growth," by measuring discrete characteristics of that site such as nearby transit frequency and level of service, walkability, development density, and mix of uses. In contrast, the *San Diego Traffic Generators Manual* currently recommends generic, across-the-board trip reduction percentages of 5% for location within ¼ mile of transit, and 10% for mixed use – regardless of the frequency or level of service of the nearby transit, density, and walkability of the site in question.

# THE MIXED-USE METHOD: CALCULATING TRIP GENERATION FOR SMART GROWTH SETTINGS

---

## BACKGROUND

Development that integrates multiple land use types on a single site has become increasingly common. However, the data presented in The Institute of Transportation Engineers (ITE's) *Trip Generation* informational report and in the *San Diego Traffic Generators Manual* is primarily collected at single-use, free-standing sites. This defining characteristic limits the applicability of these "standard" trip rates to mixed-use or multi-use development projects and smart growth environments. While the number of person trips generated by individual uses may be similar to free-standing sites, the potential for interaction among on-site activities can significantly reduce the total number of vehicle trips. Additionally, mixed-use projects located in areas with a variety of nearby destinations and high-quality transit access will produce fewer vehicle trips due to a larger share of trips entering and exiting the site on foot, on bicycle, or by transit.

The SANDAG Smart Growth Concept Map provides a definition for smart growth in terms of its place type thresholds. These are as follow:

Place Type	Minimum Residential Target	Minimum Employment Target	Minimum Transit Service Characteristics
Metropolitan Center	75 du/ac	80 emp/ac	Commuter Rail/BRT
Urban Center	40 du/ac	50 emp/ac	Light Rail/Rapid Bus
Town Center	20 du/ac	30 emp/ac	Light Rail/Rapid Bus
Community Center	20 du/ac	N/A	High Frequency Local Bus w/in Transit Priority Areas
Rural Village	10.9 du/ac	N/A	N/A
Special Use Center	Optional	45 emp/ac	Light Rail/Rapid Bus
Mixed Use Transit Corridor	25 du/ac	N/A	High Frequency Local Bus

**Development of the Mixed-Use Method**

In order to provide a straightforward and empirically validated method of estimating vehicle trip generation at mixed-use developments, the United States EPA (under review by the ITE) sponsored a national study of the trip generation characteristics of multi-use sites. Travel survey data was gathered from 239 mixed-use developments (MXDs) in six major metropolitan regions, correlated with the characteristics of the sites and their surroundings, and validated through cordon traffic counts at 16 additional sites. The findings indicate that the amount of external traffic generated is affected by a wide variety of factors, each pertaining to one or more of the following “D” characteristics: density, diversity, design, destination accessibility, development scale, demographics, and distance to transit. It should be noted that the “D” characteristics are a simple way of summarizing the characteristics that influence trip generation in smart growth settings. The actual quantification of the “D” characteristics for the purpose of the Mixed-Use Method results in a richer set of variables with which to measure a development site. For instance, the variables listed in the “Probabilities” section below capture two characteristics that could be related back to the “D”s: walkability, and transit frequency and level of service. The following illustration demonstrates the relationship among these characteristics:

Characteristics	Corresponding “D”s	Quantified Variables (How to Measure the “D”s)
Walkability	Design	Intersection Density
Transit Frequency/ Level of Service	Destination Accessibility	Employment within a 30 minute transit trip

The “D” characteristics were related statistically to the vehicle trip reductions observed in these developments. Vehicle Trip reduction is defined as a percentage reduction that can be applied to trip generation estimates for individual land uses to account for trips internal to the site and trips taken to nearby sites by walking, bicycling, or by transit. The statistical relationships between the “D” characteristics and the trip reductions observed in the surveys produced equations, collectively known as the Mixed-Use Method, which allow the user to predict the vehicle trip reduction as a function of the D characteristics.

In practice, the Mixed-Use Method is implemented in two steps: first, one computes the theoretical vehicle counts in and out of the site from an external source of standard trip rates or equations (the product of this calculation is known as raw trips). Typically this source is the ITE *Trip Generation* informational report, but in this SANDAG-specific study, the source is the *San Diego Traffic Generators* manual. Then, one applies the predicted trip reduction percentage to the initial raw trips calculation to produce an estimate for the number of vehicle trips traveling in or out of the site.

**Method Structure and Outputs**

The Mixed-Use Method consists of four steps to achieve an estimate of daily vehicle trips on external roadways generated by the mixed-use development. The four steps and outputs are:



---

**The Mixed-Use Method: Calculating Trip Generation for Smart Growth Settings**


---

1. Compute daily trip estimates using standard rates or equations from an external source (raw trips). These estimates do not assume any internalization, and only minimal trips made by walking and/or transit modes.
2. Compute the probability of a trip staying internal to the mixed-use development.
3. Compute the probability an external trip will be made by walking or bicycling.
4. Compute the probability an external trip will be made by transit.

Mathematically, if we call the above probabilities generated in steps 2-4 above  $P_{\text{internal}}$ ,  $P_{\text{walkbike}}$ , and  $P_{\text{transit}}$ , respectively, the desired result of number of external vehicle trips generated by mixed-use/TOD is illustrated in the following equation:

$$\text{External Vehicle Trips Generated by Mixed-Use/TOD Development} = \text{Raw Trips} * (1 - P_{\text{internal}}) * (1 - P_{\text{walkbike}} - P_{\text{transit}})$$

It should be noted that although the result of the above equation (the net number of external vehicle trips) has been formally validated, the component probabilities have not, largely due to lack of data for validation.

### **Probabilities: Accounting for the “D” Characteristics in the Method**

The three probability models ( $P_{\text{internal}}$ ,  $P_{\text{walkbike}}$ , and  $P_{\text{transit}}$ ) depend on variables that are characteristics of the MXD, either input or calculated by the spreadsheet. Each of these variables provides a means of quantifying each of the “D” characteristics that influence trip generation in smart growth settings.

For example,

The variables for  $P_{\text{internal}}$  are:

- Employment
- Land area
- Jobs/population diversity (a measure of land use balance)
- Number of intersections per square mile (a measure of walkability and connectedness among land uses)
- Average household size
- Vehicles owned per capita

The variables for  $P_{\text{walkbike}}$  are:

- Land area
- Jobs/population diversity
- Retail jobs/population diversity
- Employment within one mile (walking distance)
- Population + employment per square mile
- Number of intersections per square mile

- ▶ Average household size
- ▶ Vehicles owned per capita

The variables for  $P_{transit}$  are:

- ▶ Employment
- ▶ Number of intersections per square mile
- ▶ Employment within a 30-minute trip by transit
- ▶ Average household size
- ▶ Vehicles owned per capita

These variables are all examples of the "7Ds" that are known to influence travel behavior: density, diversity, design, destination accessibility, development scale, demographics, and distance to transit.

### **Mixed-Use Method Validation**

In the initial validation of the Mixed-Use Method, a set of 16 independent mixed-use sites that were not included in the initial analysis were tested to help validate the method. Validation sites were comprised of mixed-use developments and areas ranging in size from approximately 5 acres to over 1,000 acres, located in diverse regions across the United States, including Florida, Northern and Southern California, Georgia, and Texas.

The validation tests produced two types of performance measures: root mean squared error (RMSE) and pseudo R-squared. RMSE is a measure of the percentage by which the trip generation estimates produced by the method deviate from the actual trip generation counted at each of the study sites. The lower the RMSE deviation, the more accurate is the prediction method. R-squared is a measure of how well the prediction method accounts for the degree of variation in trip generation from one site to another, with a value of 0.5 indicating an ability to explain 50 percent of the variation among cases and a value of 1.0 indicating a perfect ability to capture the variation in trips from one site to another.

Among the validation sites, use of the Mixed-Use Method produced a significantly better root mean squared error (RMSE) and pseudo-R squared than traditional methods when comparing estimated to observed external vehicle trips. Estimates from the ITE *Trip Generation* manual had an RMSE of 40 percent and pseudo-R squared of 0.58, and modified estimates using ITE's traditional trip internalization techniques had an RMSE of 32 percent and pseudo-R squared of 0.73. Estimates produced by the Mixed-Use Method had an RMSE of only 26 percent and pseudo-R squared of 0.82. This means that the Mixed-Use Method explains roughly 82 percent of the variation in trip generation among the 16 sites, with the remaining 18 percent attributable to variables not included in the method.

## APPLICATION OF THE MIXED-USE METHOD FOR SAN DIEGO SITES

To ground-truth the Mixed-Use Method for use in the San Diego region, a series of tests were performed comparing the method's estimations with actual traffic count data from a number of sites within the region. This included comparisons at both large SGOAs and smaller mixed-use and TOD sites.

### Study Areas

#### *Smart Growth Opportunity Areas*

The SANDAG Smart Growth Concept Map identifies a list of SGOAs classified into one of seven place types (Metropolitan Center, Urban Center, Town Center, Community Center, Rural Village, Mixed-Use Transit Corridor, and Special Use Center). Depending on whether the areas meet land use and transit service requirements for their place type, they are identified as either existing or potential SGOAs. SANDAG identified a list of 57 existing SGOAs to be studied in this analysis. These 57 SGOAs were chosen by virtue of having residential and employment densities on the ground that currently meet the prescribed thresholds for their place types.

Travel data for a representative group of SGOAs was compiled from the SANDAG 2006 *Regional Household Travel Behavior Survey*. The large size of the SGOAs, multiple access points, and potential for through trips made it unfeasible to count vehicle trip generation for these SGOAs explicitly. As a substitute for actual counts, data from the SANDAG 2006 *Regional Household Travel Behavior Survey* was used for these sites to generate comparisons for results obtained in the Mixed-Use Method. Of the 57 selected SGOAs, 20 were found to have enough trip records from the *Travel Behavior Survey* to be considered suitable for analysis (at least 100). These are discussed in more detail below under the heading "Analysis: SGOAs." Appendix B contains more detailed information about the SGOAs that had enough trip records in the survey data to be analyzed. Appendix D contains the data sources for the SGOA land use data.

#### *Small Mixed-Use/TOD Sites*

Six additional smaller mixed-use/TOD sites were identified for comparing the Mixed-Use Method estimates to actual counts of vehicles entering and exiting each site. The selected sites were:

- ▶ Station Village at Rio Vista Trolley Station, bounded by Camino Del Este, Rio San Diego Drive, Qualcomm Way, and the trolley tracks (residential and retail; trolley station and local bus)
- ▶ La Mesa Village Plaza, bounded by La Mesa Boulevard, Acacia Avenue, Orange Avenue, and the train tracks (residential, retail, and office; trolley station)
- ▶ The Uptown Center in the Hillcrest neighborhood, bound by University Avenue, Cleveland Avenue, Richmond Street, Washington Street, and SR-163 (residential and retail; high frequency local bus)
- ▶ The Village at Morena Linda Vista Trolley Station, bound by Morena Boulevard, Linda Vista Road, Napa Street, and the train tracks (residential and retail; trolley station)
- ▶ Hazard Center, bound by SR-163, Friars Road, Frazee Road, and Hazard Center Drive (retail and office; trolley station)

- Heritage Town Center at Otay Ranch in Chula Vista, bound by Santa Rita Street, Palomar Street, Santa Andrea Street, and the southern end of the parking lot, not including the houses on Fieldbrook Street (residential, retail, and medical office).

Appendix A shows a set of maps illustrating the sites' locations and the locations where traffic counts were taken.

## Data Collection

Continuous 24-hour traffic counts were conducted at the six small mixed-use/TOD sites on typical midweek weekdays: Tuesday, Wednesday, or Thursday. Counts were conducted in October of 2008 for Otay Ranch, and in May and early June of 2009 (prior to the end of the K-12 school year) for all other sites at the site entrances shown in Appendix A.

## Analysis: SGOAs

The Mixed-Use Method starts with a reliable local source of suburban single-use trip generation data, such as *San Diego Traffic Generators*. It then accounts for vehicle trip reductions attributable to the mix of land uses on the site, the development density, walking and transit options, and site context and regional accessibility. The resulting trip reduction percentage produces a predicted count of vehicles entering or exiting the site. The effectiveness of the method can be tested by comparing the observed counts to the method's prediction. For most of the SGOAs, obtaining traffic counts entering and exiting the areas was not feasible due to the inability to filter out through trips; however, it also is possible to test the trip reduction percentage itself. Data from the *SANDAG Regional Household Travel Behavior Survey* was used to collect observed trip reduction percentages, which could be compared to the Mixed-Use Method's predicted trip reduction percentages.

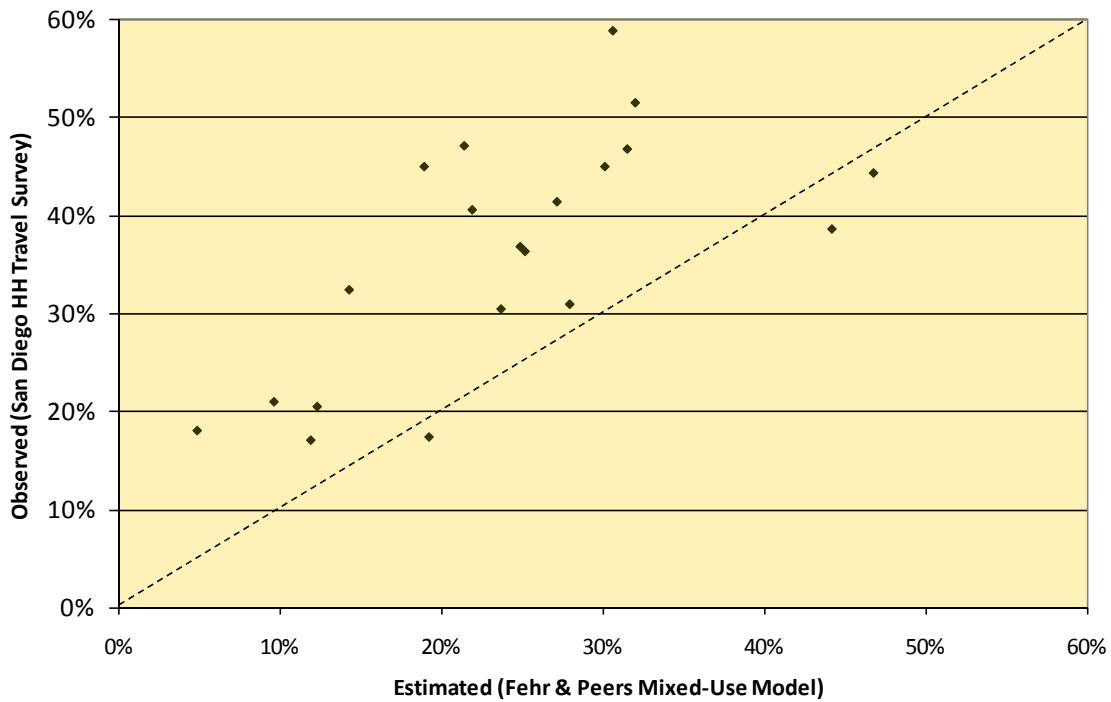
SANDAG staff provided Fehr & Peers with a data set of "flags" identifying which trips from the survey began and/or ended in one of the SGOAs. The trip data also included travel modes and party sizes. From this information, the total number of origins, destinations, and internalized trips (trips that begin and end in the same SGOA) by auto, walk, bicycle, and transit modes was computed for each SGOA. This was translated into observed values of PInternal, PWalkbike, and PTransit, as defined in the Mixed-Use Method Overview section above.

The analysis was performed for each of the 20 SGOAs that had at least 100 trips recorded in the survey. A cutoff of 100 trip records was chosen because in general, a sample size of between at least 30 to 40 is necessary for meaningful sample probabilities that are unlikely to vary significantly from their true values, and we are drawing three sample probabilities for each record (Pinternal, Pwalkbike, and Ptransit).

Figure 1 shows the estimated and observed trip reduction percentages for the 20 SGOAs. Vehicle trip reduction at the SGOA level averaged 24 percent relative to raw trip calculations and ranged from as high as 47 percent in downtown San Diego, to 32 percent in North Park/City Heights, and as low as 5 percent in Mira Mesa.

The dotted line represents an ideal model fit for comparison purposes. Overall, the Mixed-Use Method is a conservative predictor of trip reduction, underestimating trip reduction by about 10 percent on average, but the estimated and observed trip reductions are highly correlated.

**Figure 1**  
**Net Vehicle Trip Reduction for SGOAs With Greater Than 100 Survey Records**



**Analysis: Small Mixed-Use/TOD Sites With Counts**

For the small mixed-use/TOD sites, preliminary estimates of site trip generation were calculated from *San Diego Traffic Generators* trip rates and site land uses. These estimates of raw trips use suburban trip generation rates for single use sites and do not consider the effects of mixed-use development or transit access. The Mixed-Use Method was applied to each site and the trip reduction percentages were applied to the raw trips to obtain Mixed-Use Method net trips.

SANDAG staff provided site land uses and values for most of the Mixed-Use Method input variables. Some of the variables were determined by estimation methods, as follows:

- ▶ Due to confidentiality restrictions associated with California Employment Development Department data, employment levels for some sites were not always reflective of current land uses in the SANDAG databases; in those cases, they were determined from the building areas and jobs per 1,000 square foot conversion ratios.
- ▶ VRPA Technologies performed an independent set of land use data checks, collecting data from traffic studies wherever possible, and estimated building occupancy. Those estimates were taken into account in the calculation of raw trips.
- ▶ Vehicle ownership per capita was calculated from 2000 Census data using the census block group(s) that most closely matched the sites' locations.
- ▶ SANDAG staff estimated employment within 30 minutes by transit using their regional travel demand model.

The Mixed-Use Method: Calculating Trip Generation for Smart Growth Settings

Table 1 shows the SANDAG raw trips, the Mixed-Use Method's count predictions, and the actual external vehicle trip counts. Detail behind the SANDAG raw trips calculations is provided in Appendix B.

**Table 1**  
**Mixed-Use Method Analysis for SANDAG Sites**

Site Name	Location	SANDAG Raw Trips <sup>1</sup>	Mixed-Use Method Trip Reduction Percentage	Mixed-Use Method Net Trips <sup>2</sup>	External Vehicle Trip Counts <sup>3</sup>	Percent Deviation between Mixed-Use Method and External Vehicle Counts
Rio Vista Station Village	San Diego	6,689	17%	5,538	5,307	4%
La Mesa Village Plaza	La Mesa	5,681	20%	4,539	4,280	6%
Uptown Center	San Diego	20,214	15%	17,097	16,886	1%
The Village at Morena Linda Vista	San Diego	6,375	26%	5,251	4,712	11%
Hazard Center	San Diego	15,051	12%	13,214	11,644	13%
Heritage Center at Otay Ranch	Chula Vista	10,505	7%	9,730	7,935	23%

(1) Using San Diego *Traffic Generators* Trip Rates; see Appendix B for details  
 (2) Application of Fehr & Peers Mixed Use Trip Generation Reduction Percentages to (1)  
 (3) Actual counts  
 Source: Fehr & Peers, 2009

Based on the results shown in the table above, the Mixed-Use Method is an excellent predictor of external vehicle trips generated by smart growth development, tending to be slightly conservative, but without overestimating smart growth trips to the same degree as conventional trip generation methods. In all cases listed in Table 1, the Mixed-Use Method results in an estimation of external vehicle trips that is below the levels of estimated trip generation using raw trips alone and at or above the level of trips that were determined through actual counts. On average, the *San Diego Traffic Generators* trip generation rates for suburban development would overestimate traffic from the six sites by 29 percent, while the Mixed-Use Method reduces the average overestimate to 9 percent.

**Additional Comments**

The 20 larger SGOA sites analyzed in Figure 1 provide data for both validation of the Mixed-Use Method and for future refinements. It should be noted that the method's underestimation of trip reduction is most noticeable when it comes to the transit trips component, and additional data could help improve future versions of the Mixed-Use Method. Data collection at additional sites in urban locations with high transit usage is recommended in order to uncover statistically significant variables that are related to the "distance to transit" characteristic. This will help subsequent versions of the method to do a better job of capturing the beneficial aspects of a TOD site's proximity to transit.

---

**The Mixed-Use Method: Calculating Trip Generation for Smart Growth Settings**

---

It is noteworthy that at four of the six sites where actual counts were taken, the Mixed-Use Method predicts vehicle traffic generated within 10 percent of actual counts, and the average percent overestimation is 9 percent. By comparison, the best alternative method of estimating trip generation within the region, the *San Diego Traffic Generators* manual, would overestimate trip generation at the six sites by an average of 29 percent.

Participants in the study process have noted that the study was conducted during a downturn in the national and local economy. Consideration was given to adjusting the results of the study to account for reduced economic activity; however, it was decided that the results would not be adjusted to account for this factor. Historically, nationwide and local trip-generation counts have not been adjusted for the state of the economy at the time of the counts. Instead, the counts are averaged over a variety of economic conditions to produce an average trip generation rate. In the case of this study, much of the data that was used to calibrate and validate the Mixed-Use Method was collected prior to the current downturn. This includes the nationwide data on which the method was based, as well as the local data collected at SGOA sites. Data collected at the small mixed-use/TOD sites was collected during the economic downturn.

However, efforts were made to adjust the analysis to account for any unusually high vacancy rates found at the study sites. As a result, the comparison of actual traffic counts with estimates produced by the Mixed-Use Method take into account both the economy's influence on occupancies and the relative accuracy of the method for estimating traffic at a site with a given level of occupancy. Overall, the entire dataset used in the analysis reflects data collected during a variety of economic conditions.

Finally, the method has not been fully validated for application to single-use developments in smart growth settings or large auto-oriented, mixed-use developments. The following comments apply to these types of developments:

- ▶ The Mixed-Use Method was explicitly developed for the analysis of mixed-use developments. It has not been formally validated for analyzing single-use developments within mixed-use areas. For analysis of single-use development within a mixed-use area, two possible approaches are suggested:
  1. Define a mixed-use area surrounding the proposed development (and all associated input variables) and run the method with and without the development. The difference in trips between the two calculations represents the net change in the number of external trips generated by the proposed development.
  2. Select one of the SGOAs or counted sites that are documented in these guidelines that most closely resembles the area in which the development project is proposed, and use the external trip reductions from the SGOA or counted site to estimate trip reductions for the proposed development.





# APPENDICES

---



# **Appendix A**

## **Locations of Counted Sites**

---





Smart Growth Trip Generation and Parking Demand Guidelines

**STATION VILLAGE AT RIO VISTA STATION**

**FP**  
**FEHR & PEERS**  
TRANSPORTATION CONSULTANTS  
November 2009



Smart Growth Trip Generation and Parking Demand Guidelines

LA MESA VILLAGE PLAZA

**fp**  
**FEHR & PEERS**  
TRANSPORTATION CONSULTANTS  
November 2009



Smart Growth Trip Generation and Parking Demand Guidelines

**fp**  
**FEHR & PEERS**  
 TRANSPORTATION CONSULTANTS  
 November 2009

**UPTOWN CENTER**



Smart Growth Trip Generation and Parking Demand Guidelines

**MORENDA LINDA VISTA STATION**

**fp**  
**FEHR & PEERS**  
TRANSPORTATION CONSULTANTS  
November 2009





Smart Growth Trip Generation and Parking Demand Guidelines

HAZARD CENTER

**fp**  
**FEHR & PEERS**  
TRANSPORTATION CONSULTANTS  
November 2009



Smart Growth Trip Generation and Parking Demand Guidelines

# **Appendix B**

## **SANDAG Raw Trips Calculation Backup and Site Characteristics**

---



**APPENDIX B – SANDAG RAW TRIPS CALCULATION BACKUP**

To calculate “raw trips” as shown in Table 1, the recommended rates from *San Diego Traffic Generators* were applied to land uses as provided by SANDAG staff and through VRPA Technologies’ independent data checking. The tables below show the detail for each of the six sites. Some of the rates used were modified from the *(Not so) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* report, as follows:

- The *(Not so) Brief Guide of Vehicular Traffic Generation Rates* has a rate of 1.8 trips / seat for theaters. The trip rate for the theater at Hazard Center was scaled down to 50% 0.9 to reflect the unique characteristics of this theater, consistent with the Hazard Center Traffic Impact Analysis done by Urban Systems in July of 2009.
- The Starbucks cafes at three of the sites were treated as fast food restaurants, and their building areas were estimated from street views.
- The supermarkets at Uptown Center (Ralph’s and Trader Joe’s) were separated out from the general neighborhood shopping center rate, and their building areas were estimated from aerials.

Rio Vista Station Village (Transit: Light Rail)					
Land Use	Units	Amount	Occupied	Daily Trip Rate	Daily Trips
Apartment	d.u.	970.0	95%	6	5,529
Specialty Retail	1,000 s.f.	13.0	100%	40	520
Sit Down, High Turnover Restaurant	1,000 s.f.	4.0	100%	160	640
<b>Total Trips</b>					<b>6,689</b>

La Mesa Village Plaza (Transit: Light Rail)					
Land Use	Units	Amount	Occupied	Daily Trip Rate	Daily Trips
Office	1,000 s.f.	14.3	95%	Equation <sup>1</sup>	373
Sit Down High Turn Over Restaurant	1,000 s.f.	20.2	90%	160	2,906
Fast Food Restaurant (Starbucks)	1,000 s.f.	2.0	100%	700	1,400
Specialty Retail	1,000 s.f.	8.0	90%	40	288
Condominium	d.u.	94.0	95%	8	714
<b>Total Trips</b>					<b>5,681</b>

<sup>1</sup> Ln(T) = 0.756 ln(x) + 3.95

Uptown Center (Transit: High Frequency Local Bus)					
Land Use	Units	Amount	Occupied	Daily Trip Rate	Daily Trips
Condominium	d.u.	311.0	95%	8	2,364
Neighborhood Shopping Center	1,000 s.f.	67.2	90%	120	7,260
Supermarket	1,000 s.f.	70.0	100%	150	10,500
Government Office	1,000 s.f.	3.0	100%	30	90
<b>Total Trips</b>					<b>20,214</b>

The Village at Morena Linda Vista (Transit: Light Rail)					
Land Use	Units	Amount	Occupied	Daily Trip Rate	Daily Trips
Apartment	d.u.	185.0	95%	6	1,055
Sit-Down, High Turnover Restaurant	1,000 s.f.	14.0	100%	160	2,240
Fast Food Restaurant (Starbucks)	1,000 s.f.	3.0	100%	700	2,100
Specialty Retail	1,000 s.f.	8.0	100%	40	320
Transit Station	Occupied Parking	165.0	100%	4	660
<b>Total Trips</b>					<b>6,375</b>

Hazard Center (Transit: Light Rail)					
Land Use	Units	Amount	Occupied	Daily Trip Rate	Daily Trips
Specialty Retail	1,000 s.f.	98.7	90%	40	3,553
Sit-Down, High Turnover Restaurant	1,000 s.f.	18.0	100%	160	2,880
Fast Food Restaurant (Starbucks)	1,000 s.f.	2.0	100%	700	1,400
Office	1,000 s.f.	284.0	90%	Equation <sup>1</sup>	3,432
Hotel	Rooms	300.0	80%	10	2,400
Theater	Seat	1,540.0	100%	0.9	1,386
<b>Total Trips</b>					<b>15,051</b>

<sup>1</sup>  $\ln(T) = 0.756 \ln(x) + 3.95$

Heritage Center at Otay Ranch (Transit: Planned BRT and High Frequency Local Bus)					
Land Use	Units	Amount	Occupied	Daily Trip Rate	Daily Trips
Apartment	d.u.	271.0	90%	6	1,463
Gas Station With Food Mart	Fueling Station	8.0	100%	160	1,280
Medical Office	1,000 s.f.	67.4	95%	50	3,202
Neighborhood Shopping Center	1,000 s.f.	38.0	100%	120	4,560
<b>Total Trips</b>					<b>15,505</b>

## **Appendix C**

# **Vehicle Trip Reduction for SGOAs**

---





Site Short Name <sup>1</sup>	Community Name	Place Type <sup>2</sup>	Area (acres)	Dwelling Units		Non-Residential Building Area (1,000 square feet)				Number of Intersections	Jobs Within One mile	Jobs Within 30 Minutes by Transit	Trip Reduction	
				Single Family	Multifamily	Retail	Office	Public	Indus-trial				Modeled	Surveyed
SD UN-2	Eastgate Mall Road, I-805, UCSD, Nobel Drive	Urban Center	818	120	11,389	2,408	6,234	112	42	37	23,510	237,386	14%	32%
SD CC-1C	Centre City Community Plan Area	Metropolitan Center <sup>3</sup>	389	9	5,576	2,732	7,508	2,565	23	120	71,350	324,431	47%	44%
SD UP-6	Pennsylvania Avenue/Robinson Avenue, Park Boulevard, Washington Street	Urban Center	383	703	4,070	1,922	552	68	2	160	13,950	333,063	25%	36%
ES-1	Downtown Specific Plan/Mercado Area Plan	Town Center	452	176	648	2,285	566	18	126	165	12,660	80,713	24%	30%
SD UP-1	4th Street & 5th Street from DateStreet to Pennsylvania Avenue	Mixed-Use Transit Corridor	352	317	4,384	622	1,887	113	0	151	81,240	275,189	28%	31%
SD CH-3B	University Avenue from Park Boulevard to 54th Street	Mixed-Use Transit Corridor <sup>3</sup>	447	1,582	3,943	798	524	85	35	200	15,440	275,848	32%	51%
SD CH-1	Meade Avenue, Wightman Street, 40th Street	Town Center	381	1,279	3,251	765	535	55	0	172	5,420	263,272	31%	59%
SD NV-1	I-8, Friars Road, San Diego River, Mission Gorge Road in the east	Town Center	244	2	432	756	511	0	984	26	13,240	282,833	10%	21%
SD NH-1	Park Boulevard at Meade Avenue continuing along Adams Avenue	Mixed-Use Transit Corridor	501	1,993	4,213	586	57	44	0	243	19,020	202,215	32%	47%
SD MV-3	I-8, SR 163, I-805, Community Boundary	Urban Center	531	122	3,188	3,975	2,389	147	73	29	8,910	365,333	12%	17%
SD CC-1E	Centre City Community Plan Area	Metropolitan Center <sup>3</sup>	290	0	4,492	1,004	383	46	338	47	50,890	269,903	22%	41%
SD PB-1	Grand Avenue & Garnet Avenue from Mission Boulevard to Olney Street	Mixed-Use Transit Corridor	502	1,496	4,175	1,479	135	9	0	210	12,210	206,276	25%	37%
CO-1	Downtown Coronado Town Center	Town Center	307	554	2,941	2,051	117	13	0	122	6,270	97,223	21%	47%
SD LJ-1	Prospect Street, Pearl Street, Fay Avenue, Ivanhoe Avenue	Town Center	220	170	1,585	2,220	537	95	0	89	10,830	91,444	19%	45%
SD CC-1D	Centre City Community Plan Area	Metropolitan Center <sup>3</sup>	346	77	6,078	1,739	259	235	1,007	133	44,610	408,616	44%	39%

Site Short Name <sup>1</sup>	Community Name	Place Type <sup>2</sup>	Area (acres)	Dwelling Units		Non-Residential Building Area (1,000 square feet)				Number of Intersections	Jobs Within One mile	Jobs Within 30 Minutes by Transit	Trip Reduction	
				Single Family	Multifamily	Retail	Office	Public	Indus-trial				Modeled	Surveyed
SD CH-3A	University Avenue from Park Boulevard to 54th Street	Mixed-Use Transit Corridor	254	735	3,888	770	151	94	32	153	16,640	263,125	30%	45%
SD UN-1	I-5, La Jolla Village Drive, Gilman Drive	Town Center	216	0	2,841	1,137	203	0	0	20	8,640	147,394	12%	20%
SD NP-2G	El Cajon Boulevard from Park Boulevard to 79th Street	Mixed-Use Transit Corridor <sup>3</sup>	319	785	1,519	1,039	115	44	0	102	12,360	107,950	19%	17%
SD NP-1	30th Street from Adams Avenue to Upas	Mixed-Use Transit Corridor	290	1,086	3,310	886	119	89	41	141	11,760	252,990	27%	41%
SD MM-1	Westview Parkway from Capricorn Way to Hillery Drive & Mira Mesa Boulevard from Black Mountain Road to I-15	Town Center	158	0	412	1,189	4	0	0	4	5,940	117,403	5%	18%

(1) Complete descriptions of the sites can be found in the SANDAG *Smart Growth Concept Map Site Descriptions* document, dated October 27, 2006

(2) As identified by the San Diego Regional Comprehensive Plan (RCP).

(3) Divided

## **Appendix D**

### **Data Sources for SGOA Land Use Data**

---



## APPENDIX D – DATA SOURCES FOR SGOA LAND USE DATA

The following SANDAG data sources were used as inputs into the MXD model:

- ▶ Current Population Estimates, SANDAG 2008
- ▶ ES-202 and QCEW Industry Employment and Quarterly Wage Data, California Employment Development Department Labor Market Information, 2005
- ▶ SANDAG Land Use Database, 2008
- ▶ SANGIS Road Network, Q2 2008 (excludes non-pedestrian features such as freeways, but includes alleys and dedicated foot paths)
- ▶ SANDAG Transit Stop Inventory, 2008
- ▶ SANDAG Smart Growth Concept Map, 2008

Smart Growth Opportunity Areas (SGOAs) were drawn as 2 versions:

1. Using official boundaries as drawn on Smart Growth Concept Map
2. With a ½ mile walkable buffer from the center street for Mixed Use Transit Corridors, and from the SGOA center point for other place types.

Canyons, freeways, rivers, coastline, and other such impediments were clipped out of the SGOA boundaries.

ATTACHMENT TO ACCEPTANCE MEMORANDUM  
FROM GOVERNOR LINDA LINGLE  
TO KAREN SEDDON, EXECUTIVE DIRECTOR, HHFDC  
MITIGATION MEASURES  
FINAL ENVIRONMENTAL IMPACT STATEMENT  
KEAHUOLU AFFORDABLE HOUSING PROJECT

The Keahuolu Affordable Housing Project is planned as a response to the regional needs for housing and the desire to reduce congestion on regional highways due to residents traveling long distances between home and work.

The following list of mitigative measures identified in the Final Environmental Impact Statement will minimize the negative impacts of the project. If the project is implemented, the Hawaii Housing Finance and Development Corporation (HHFDC) and/or its agents should perform these or alternative and at least equally effective mitigation measures at the discretion of the permitting agencies.

GEOLOGY AND TOPOGRAPHY

A grading permit, a National Pollution Discharge Elimination System (NPDES) permit, and other necessary permits would be required prior to construction. An Underground Injection Control (UIC) permit would be required for any dry wells constructed. The contractor would be required to comply with erosion and sedimentation rules and regulations. Runoff flow rates and volume would not be increase from the site to comply with the County of Hawaii's Storm Drainage Standard.

Storm drainage filtration devices would be installed to mitigate pollutants from entering the groundwater.

GROUNDWATER, HYDROLOGY, SURFACE WATER, AND DRAINAGE

The project would be required to comply with the NPDES permit requirements, County Erosion and Sedimentation Control and County Storm Drainage Standards. Storm drain filtration devices and other measures would be employed to reduce potential impacts to groundwater.

Runoff volumes and rates would not increase.

NATURAL HAZARDS - EARTHQUAKES

Construction of the improvements would be required to comply with the Uniform Building Code's (UBC) standards for Zone 4.

Comment [CBL1]: YES

Comment [CBL2]: Prior to the occupancy of any residential unit within the Petition Area, Petitioner shall implement (or require to be implemented) and maintain storm and surface-water runoff BMPs, subject to any applicable review and approval of the State of Hawaii Department of Health (DOH), designed to minimize pollution and to prevent violations of State water quality standards as a result of storm-water discharges originating from the Petition Area.

To the extent practicable and consistent with applicable laws, Petitioner shall design storm and surface runoff BMPs to treat the first-flush runoff volume, to remove pollutants from storm and surface-water runoff, and to prevent pollutants from reaching the water table or coastal waters.

To the extent practicable and consistent with applicable laws, Petitioner shall implement landscaped areas, such as grassed or vegetative swales, grass filter strips, vegetated open space areas, check dams, or other comparable BMPs engineered to treat the first flush runoff volume including the removal of suspended solids and oils and greases from all streets or any parking lot designed for more than 50 vehicles, and debris catch basins to allow the detention and periodic removal of rubbish and sediments deposited by runoff using current industry and engineering standards.

Comment [CBL3]: YES

Comment [CBL4]: Runoff flow rates and volume would not be increase from the site to comply with the County of Hawaii's Storm Drainage Standard.

Comment [CBL5]: YES

ARCHAEOLOGICAL AND HISTORIC RESOURCES

Archaeological sites and cultural resources determined to be significant under State criteria would be preserved. Data recovery plans, site preservation plans and burial treatment plans would be prepared as required.

A monitoring plan would be prepared and submitted to the Department of Land and Natural Resources (DLNR) State Historic Preservation Division (SHPD) prior to groundbreaking on the proposed reservoir site on Department of Hawaiian Home Lands.

ROADWAYS AND TRAFFIC

To address the impacts upon the regional traffic system, the following series of mitigation measures would be followed.

- Intersection 3: Kamakaeha Avenue & Palani Road (SR 190) — Install a traffic signal with the existing lane configuration.
- Intersection 4: Henry Street & Palani Road (SR 190) — Widen the makai-bound approach to provide two left-turn lanes, one through lane, and one shared through/right-turn lane; widen the northbound approach to provide one left-turn lane, one through lane, and one shared through/right-turn lane; and construct the southbound approach with one left-turn lane, one through lane, and one shared through/right-turn lane.
- Intersection 5: Palani Road (SR 190) & Minor Site Access Road — Add a makai-bound deceleration lane into the project site and a makai-bound acceleration lane out from the project, separated by a raised island to channelize traffic. A second makai-bound lane would be added to receive traffic exiting the project site.
- Intersection 7: Ane Keohokalole Highway & Major Site Access Road — Install a traffic signal.
- Intersection 8: Kealaka'a Street/Pahilihoho Street & Palani Road (SR 190) — Widen Palani Road to provide one left-turn lane, one through lane, and one shared through/right.. turn lane on the southbound approach and two left-turn lanes and one shared through/right-turn lane on the northbound approach. Widen the southbound departure to two lanes, which would merge into a single land downstream of the intersection.
- Intersection 10: Uluaoa Street & Palani Road (SR 190) — Install a traffic signal Within the existing lane configuration,
- Intersection 12: Kealakehe Parkway & Ane Keohokalole Highway Install a traffic signal within the existing lane configuration.

**Comment [CBL6]:** Petitioner shall comply with all interim and/or permanent preservation measures recommended and approved by the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), prior to issuance of any permit for grubbing and grading.

Petitioner shall confirm in writing to the Land Use Commission that the SHPD has found Petitioner's preservation mitigation commitments to be acceptable and has determined that any required historic preservation measures have been successfully implemented.

**Comment [CBL7]:** YES

**Comment [CBL8]:** Petitioner shall perform these, or alternative and equally effective mitigation measures at the discretion of the DOT.

Petitioners shall mitigate all project generated traffic impacts as recommended and/or required by the Traffic Impact Analysis Report (TIAR) prepared for the project that has been reviewed and accepted by the State Department of Transportation (DOT). Petitioner shall not submit applications for subdivision of the residential lots or plan approval for the multiple family and/or commercial units within the Project until the Petitioner has executed an agreement with DOT committing to the implementation of all necessary measures to mitigate the direct impacts of the project on the surrounding roadway system as well as to the level of funding and participation for Petitioner's pro rata share of regional transportation improvements.

Comment [CBL9]: YES

**NOISE**

Measures to minimize noise impacts may include limiting work to daytime hours, reducing truck/equipment idling when not in use, using manually adjustable or self-adjusting backup alarms, and fitting generators and equipment with manufacturer-approved exhaust mufflers. Noise from construction activity will be short-term and will be required to comply with Department of Health (DOH) noise regulations.

To buffer the project from the Ane Keohokalole Highway, the conceptual plans for the project provide for commercial uses along the highway and a wide landscaped greenway between the highway and the project site.

Residential and commercial uses within the Keahuolu project site would be required to conform to DOH rules and regulations for noise, which state maximum allowable noise limits at property lines.

Comment [CBL10]: YES

**AIR QUALITY**

A dust control program would be developed and followed to control dust from construction activities. Fugitive dust emissions can be controlled to a large extent by watering active work areas, using wind screens, keeping adjacent paved roads clean, and covering open-bodied trucks. Other measures include limiting the area to be disturbed at any given time, mulching or chemically stabilizing inactive areas, or paving and landscaping areas early in the construction schedule.

**INFRASTRUCTURE AND UTILITIES**

Off-Site Roadway System. Landowners with frontage to Ane Keohokalole Highway would be expected to share in the cost of constructing the highway. The project would be responsible for satisfying its allocated share of the cost of the improvements including one lane in each direction plus a middle turn lane with drainage but excluding other utilities.

Comment [CBL11]: Costs of constructing the Ane Keohokalole Highway has been borne by ARRA funds in 2010 - 2010.  
  
ARRA funds may be used only for Highway improvements, so the Kamakana Villages developer contributed funds for regional electrical, water and sewer infrastructure.

A right-in/right-out intersection is proposed along Palani Road. To minimize impacts on traffic along Palani Road, the intersection would include deceleration and acceleration lanes and a raised median to prevent vehicles from attempting to make left turn movements.

Comment [CBL12]: YES



**Drainage System.** The contractor would be required to comply with Chapter 10 - Erosion and Sedimentation Control - of the County Code, the Department of Public Works Storm Drainage Standard, and the NPDES permit requirements, including the Best Management Practices (BMP) plan to contain and control site erosion and to prevent the discharge of sediment from the site. After completion of the project construction, ground surfaces would be stabilized with landscape and hardscape.

**Comment [CBL13]:** YES

**Comment [CBL14]:** Petitioners shall implement applicable BMPs for each proposed land use to minimize infiltration and runoff from construction and vehicle operations, reduce or eliminate the potential for soil erosion and ground water pollution, and formulate dust control measures to be implemented during and after the development process in accordance with the DOH guidelines.

The developer would comply with the County's Storm Drainage Standard, runoff flow rates and volume would not be increased from the site.

**Comment [CBL15]:** YES

**Comment [CBL16]:** YES

The runoff would be collected and discharged to on-site seepage areas, seepage wells, and drywells for percolation into the ground.

**Comment [CBL17]:** To the extent practicable and consistent with applicable laws, Petitioner shall design storm and surface runoff BMPs to treat the first-flush runoff volume, to remove pollutants from storm and surface-water runoff, and to prevent pollutants from reaching the water table or coastal waters.

Recommended drainage systems would also include storm drain filtration devices to mitigate potential pollutants. Filtration devices may include vegetated swales, bioretention areas, sand, or organic filtering systems or commercially available proprietary products such as catch basin inserts and hydrodynamic devices. The method of filtration would be determined based on available technology and integrated with the system design.

To the extent practicable and consistent with applicable laws, Petitioner shall implement landscaped areas, such as grassed or vegetative swales, grass filter strips, vegetated open space areas, check dams, or other comparable BMPs engineered to treat the first flush runoff volume including the removal of suspended solids and oils and greases from all streets or any parking lot designed for more than 50 vehicles, and debris catch basins to allow the detention and periodic removal of rubbish and sediments deposited by runoff using current industry and engineering standards.

The developer would provide educational materials and programs to residents regarding how they can control and prevent non-point source pollution, including but not limited to, vehicular maintenance and proper disposal of vehicle fluids, the impacts of washing cars on the Street, potential impacts of fertilizer and pesticides on the environment, and alternatives to fertilizers and pesticides.

Petitioners shall fund, design and construct any drainage system improvements required to prevent adverse impact resulting from the development of the Project. Petitioners shall be required to prevent runoff from the Petition Area from adversely affecting State highway facilities and downstream properties. Petitioners shall submit plans to the DOT and appropriate State and County agencies for review and approval.

The developer would also establish community association covenants to include landscape management and vehicle maintenance controls.

**Comment [CBL18]:** YES  
Petitioner shall create and provide a pollution prevention plan for residential and commercial facilities, and provide copies to property purchasers. To reduce the amount of pollutants from entering the groundwater, Petitioner shall provide educational materials and programs to residents, establish community association covenants and implement ... [1]

Landscape management controls would include the use of fertilizers, pesticides and herbicides, a listing of approved fertilizers, pesticides and herbicides, and a listing of preferred landscape plant species including native plant species and those thought to have a low risk of becoming invasive.

**Comment [CBL19]:** YES

Vehicle maintenance controls would include vehicle washing and maintenance.

**Comment [CBL20]:** YES

**Comment [CBL21]:** YES

The developer would also provide the County Department of Parks and the State Department of Education information on the landscape management controls and vehicle maintenance controls to be used within the Keahuolu site.

Water System. The developer would be required to comply with the NPDES permit requirements, including the BMP plan, and Chapter 10 - Erosion and Sedimentation Control - of the County Code during construction, and prevent the discharge of sediment from the site. The project would be designed to comply with the County's Storm Drainage Standard such that runoff volumes and rates would not increase as a result of site development.

The NPDES permit requirements, including the BMP plan, would require the contractor to manage materials to prevent discharge of pollutants to the ground.

During and after development, landscape management practices and community association covenants would be applied in public and private areas to minimize the use of fertilizers, pesticides and herbicides that could potentially enter the groundwater.

Water supply infrastructure, including source wells, storage reservoirs, and distribution lines, would be constructed as required and approved by the County Department of Water Supply.

Short-term localized water system shut-downs and road closures may be required as the new water infrastructure is connected to the existing water system.

The developer would implement water conservation measures including installing low flow toilets and showerheads waterless urinals in public restrooms, plant drought tolerant native landscaping and providing residents with information on the importance of water conservation.

To reduce the amount of pollutants from entering the groundwater, the developer would provide educational materials and programs to residents, establish community association covenants and implement BMPs.

Educational materials and programs, and community association covenants would include, but not be limited to, landscape management and vehicular maintenance controls.

BMPs would include vegetative swales, bioretention areas, storm drain filtration devices, ground stabilization with landscape and hardscape, educational warning signs on the drainage systems, and coordinating environmental educational programs for project area residents with the DOH Clean Water Branch.

Wastewater System. Construction activities would be required to conform to the applicable environmental requirements for storm water protection and mitigation of potential noise and dust impacts. County fees associated with permission to connect would be applied by the County to upgrade the existing treatment and disposal facilities on an as-needed basis.

**Comment [CBL22]:** YES

**Comment [CBL23]:** YES  
 Petitioners shall implement applicable BMPs for each proposed land use to minimize infiltration and runoff from construction and vehicle operations, reduce or eliminate the potential for soil erosion and ground water pollution, and formulate dust control measures to be implemented during and after the development process in accordance with the DOH guidelines.

**Comment [CBL24]:** YES

**Comment [CBL25]:** YES

**Comment [CBL26]:** YES

**Comment [CBL27]:** YES

**Comment [CBL28]:** Petitioners shall implement water conservation measures and Best Management Practices (BMPs), such as the use of indigenous and drought-tolerant plants and turf and incorporate such measures in the Project's landscape planting.

Waterless urinals will be used in public restrooms where practicable.

**Comment [CBL29]:** YES

**Comment [CBL30]:** YES

**Comment [CBL31]:** To the extent practicable and consistent with applicable laws, Petitioner shall design storm and surface runoff BMPs to treat the first-flush runoff volume, to remove pollutants from storm and surface-water runoff, and to prevent pollutants from reaching the water table or coastal waters.

To the extent practicable and consistent with applicable laws, Petitioner shall implement landscaped areas, such as grassed or vegetative swales, grass filter strips, vegetated open space areas, check dams, or other comparable BMPs engineered to treat the first flush runoff volume including the removal of suspended solids and oils and greases from all streets or any parking lot designed for more than 50 vehicles, and debris catch basins to allow the detention and periodic removal of rubbish and sediments deposited by runoff using current industry and engineering standards.

Petitioners shall fund, design and construct any drainage system ... [2]

**Comment [CBL32]:** YES  
 Petitioners shall fund, design and construct transmission lines and connect to the County of Hawaii's Kealakehe Sewage Treatment Plant to the ... [3]

Solid Waste. Emphasis for the management of solid wastes generated by the Keahuolu project would be placed on waste diversion and recycling. Solid wastes would be managed in conformance with the applicable DOH and County requirements. The developer would provide educational materials and information on recycling programs to residents to minimize and divert wastes.

**Comment [CBL33]:** YES  
Petitioners shall develop a solid waste management plan in conformance with the Integrated Solid Waste Management Act, HRS §342G. Petitioners' solid waste management plan shall be approved by the County of Hawaii and the DOH.

Electrical Service. An additional Hawaii Electric Light Company (HELCo) substation would be required to accommodate anticipated loads from the Keahuolu project coupled with the partial buildout of the Villages of La'i'opua and the Queen Liliuokalani Trust's ongoing Makalapua development. The preferred location for the new substation is in the Keahuolu project in the vicinity of the County reservoir near the Palani Road/Ane Keohokalole Highway intersection.

**Comment [CBL34]:** YES  
Petitioner is funding electrical connection to the Palani Substation. Petitioner shall work with HELCo to determine need for and location of any additional substations.

PUBLIC FACILITIES

Civil Defense. The developer would be required to install one outdoor warning siren at a central location within the development.

**Comment [CBL35]:** YES  
Petitioners shall fund and install one or more outdoor solar-powered warning sirens serving the Petition Area as determined by the State Department of Defense, Office of Civil Defense.

Education. An elementary school would be located on-site to relieve crowding at Kealakehe Elementary.

**Comment [CBL36]:** YES

Recreation. The project would include approximately 25 acres of park and open space for use by residents, in accordance with County Parks Department requirements.

**Comment [CBL37]:** YES

**Page 4: [1] Comment [CBL18] Carlsmith Ball LLP 8/31/2010 12:06:00 PM**

YES

Petitioner shall create and provide a pollution prevention plan for residential and commercial facilities, and provide copies to property purchasers. To reduce the amount of pollutants from entering the groundwater, Petitioner shall provide educational materials and programs to residents, establish community association covenants and implement BMPs. Educational materials and programs, and community association covenants would include, but not be limited to, landscape management and vehicular maintenance controls.

**Page 5: [2] Comment [CBL31] Carlsmith Ball LLP 8/31/2010 11:59:00 AM**

To the extent practicable and consistent with applicable laws, Petitioner shall design storm and surface runoff BMPs to treat the first-flush runoff volume, to remove pollutants from storm and surface-water runoff, and to prevent pollutants from reaching the water table or coastal waters.

To the extent practicable and consistent with applicable laws, Petitioner shall implement landscaped areas, such as grassed or vegetative swales, grass filter strips, vegetated open space areas, check dams, or other comparable BMPs engineered to treat the first flush runoff volume including the removal of suspended solids and oils and greases from all streets or any parking lot designed for more than 50 vehicles, and debris catch basins to allow the detention and periodic removal of rubbish and sediments deposited by runoff using current industry and engineering standards.

Petitioners shall fund, design and construct any drainage system improvements required to prevent adverse impact resulting from the development of the Project. Petitioners shall be required to prevent runoff from the Petition Area from adversely affecting State highway facilities and downstream properties. Petitioners shall submit plans to the DOT and appropriate State and County agencies for review and approval.

**Page 5: [3] Comment [CBL32] Carlsmith Ball LLP 8/31/2010 12:01:00 PM**

YES

Petitioners shall fund, design and construct transmission lines and connect to the County of Hawaii's Kealakehe Sewage Treatment Plant to the satisfaction of the County Department of Environmental Management and the DOH.

9/14/10

RESUME OF  
STANLEY S. FUJIMOTO  
HHFDC PROJECT MANAGER

I. ROLE IN THIS PROJECT

Monitor, coordinate and facilitate developer's activities with Hawaii Housing Finance and Development Corporation's (HHFDC) requirements as the administrator of State resources and programs for affordable housing.

II. SUMMARY OF RELEVANT BACKGROUND

Stan's background and experience in real estate development and his present role as HHFDC project manager makes him the best person at HHFDC to be involved with this project.

1998 to Present

Project Manager

HHFDC and its predecessor agency, the Housing and Community Development

Corporation of Hawaii

Honolulu, Hawaii

- Project management of infill and master planned affordable housing projects. Responsibilities include procurement of consultants and developers, drafting Request for Proposals, negotiating and drafting development and loan documents for HHFDC's Dwelling Unit Revolving Fund interim loan, and monitoring of development and construction of projects.
- Present projects include 272-acre mixed use master planned community of Kamakana Villages at Keahuolu in Keahuolu, Kona, Hawaii; 1,128-acre mixed use master planned community of the Villages of Leiali'i in Lahaina, Maui, Hawaii; 204-unit Halekauwila Place multi-family low-income housing tax credit rental project in Kakaako, Oahu, Hawaii; and 164-unit Hale Mohalu II senior low-income housing tax credit rental project in Pearl City, Oahu, Hawaii.
- Recently completed projects include Hale Wai Vista I (March 2010), an 84-unit affordable multi-family low-income housing tax credit rental project in Waianae, Oahu, Hawaii; Plantation Town Apartments (June 2008), a 330-unit affordable for-sale condominium project in Waipahu, Oahu, Hawaii; Kahikolu Ohana Hale O Waianae project (August 2008), a 72-unit, 40-bed emergency, transitional and affordable rental housing project in Waianae, Oahu, Hawaii; 70-unit Mokuola Vista Project (January 2009), a multi-family low-income housing tax credit rental project in Waipahu, Oahu, Hawaii; and the 60-unit Senior Residence at Kapolei Project (May 2009), an affordable HUD 202 senior rental project in Kapolei, Oahu, Hawaii.

1994 to 1998

Project Coordinator

Housing Finance and Development Corporation (HFDC), predecessor agency to HHFDC

Honolulu, Hawaii

- Project management of infill and master planned affordable housing projects.
- Projects included the University of Hawaii Faculty Housing Project in Manoa, Oahu, Hawaii; 1521 Pele Street, a self-help duplex housing project in Honolulu, Hawaii; Cliffside at Hanapepe affordable for-sale project in Hanapepe, Kauai, Hawaii; Hanapepe Drainage Improvements Project in Hanapepe, Kauai, Hawaii; Wailani Stream Improvements project in Waipahu, Oahu, Hawaii.

1990 to 1994

Project Manager

Haseko Hawaii, Inc.

Honolulu, Hawaii

- Project management of commercial and residential mixed-use Keaumoku Superblock Project (where Wal-Mart and Sam's Club on Keaumoku Street is now located). Responsibilities included management of acquisition of Kamaile Street, tenant relations and relocation, hazardous waste assessment and cleanup, demolition and clearing of the property, litigation for recovery of hazardous waste cleanup costs, planning, design and marketing.

1990 to 1990

Project Manager

Housing Finance and Development Corporation

Honolulu, Hawaii

- Project management of the Villages of La'i'opua master planned affordable residential project in Kealahou, Kona, Hawaii. Responsibilities included completion of the design guidelines and master plan, completion of the Environmental Impact Statement for the project, obtained Urban District classification from the Land Use Commission, obtained Conservation District Use Application Permit for Kealahou Parkway, and completed construction drawings, bidding and award of Kealahou Parkway, Phase I roadway project.

1979 to 1990

Project Manager

Aloha State Corporation

Honolulu, Hawaii

- Project management of infill and master planned affordable and market housing projects. Responsibilities included managing feasibility, planning, design, rezoning, permitting, construction and sales of projects, appeals for real property taxes, general excise and federal tax liens from contractors, and litigation defense against consultants and contractors.
- Projects included rezoning of lands for Ewa by Gentry project in Ewa, Oahu, Hawaii; redevelopment of Fernandez Village affordable housing project in Ewa Villages, Ewa, Oahu, Hawaii; development of Ewa Mahiko Park in Ewa, Oahu, Hawaii; and Leisure Estates in Waiehu, Maui, Hawaii.

### III. EDUCATION/TRAINING

Juris Doctorate Degree from the University of Hawaii (1977)

Masters of Science in Environmental and Sanitary Engineering from the University of Hawaii (1974)

Bachelor of Science in Electrical Engineering from the University of Hawaii (1971)

c:\kona\entitle\ssf resume 9-14-10

STATE OF HAWAII  
BUREAU OF CONVEYANCES  
RECORDED

MAY 27, 1992 09:52 AM

Doc No(s) 92-083200

/s/ S. FURUKAWA  
REGISTRAR OF CONVEYANCES ✓

CONVEYANCE TAX: \$4162.55

LAND COURT SYSTEM

Return by Mail ( ) Pickup ( x ) To:

**DEPT. OF LAND AND NATURAL RESOURCES  
LAND MANAGEMENT DIVISION**

TRUSTEE'S LIMITED WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS THAT:

The TRUSTEES OF THE LILIUOKALANI TRUST, hereinafter called the "Grantor," by and through DAVID M. PETERS, CHARLES A. KEKUMANO and FIRST HAWAIIAN BANK, a Hawaii corporation, as Trustees of the Grantor, in consideration of the sum of EIGHT MILLION THREE HUNDRED TWENTY FIVE THOUSAND NINETY TWO AND 50/100 DOLLARS (\$8,325,092.50) and other good and valuable consideration to the Grantor paid by THE STATE OF HAWAII, by and through its Board of Land and Natural Resources, whose principal place of business and post office address is P. O. Box 621, 1151 Punchbowl Street, Room 220, Honolulu, Hawaii 96809, hereinafter "Grantee," the receipt of which is acknowledged, does hereby grant and convey unto the Grantee FOUR HUNDRED FIFTY AND FIVE-ONE-THOUSANDTHS (450.005) acres, more or less, the property described in Exhibit "A" attached hereto and incorporated herein by reference at \$18,500.00 per acre.

AND the reversions, remainders, rents, issues and profits thereof, and all of the estate, right, title and interest of the Grantor, both at law and in equity, therein and thereto.

TO HAVE AND TO HOLD the same, together with the improvements thereon and all rights, easements, privileges and appurtenances thereunto belonging or appertaining, unto the Grantee forever.



And the Grantor, as Trustee aforesaid and not individually, hereby covenants with the Grantee that the Grantor is the owner in fee simple of the property described in Exhibit "A," and has good right to sell and convey the same; that the same are free and clear of all encumbrances made or suffered by the Grantor, and that the Grantor, as Trustee, will warrant and defend the same unto the Grantee against the lawful claims and demands of all persons claiming by, through or under the Grantee, as trustee, except as aforesaid.

The State of Hawaii shall grant to the Liliuokalani Trust perpetual easements for utility purposes, including but not limited to, water, sewer, electrical, storm drainage, and other similar uses, through, over, and across the property; provided that the location and dimensions of the easements shall be agreed to by the Board of Land and Natural Resources and its counsel, and shall be aligned so as to minimize any disruption or negative impact to the property; provided further that the Liliuokalani Trust shall bear all reasonable administrative costs related to the conveyance of title of said easements, including surveying, recordation, and attorneys' fees. Thereafter, the location and dimensions of the easements may be changed from time to time by mutual agreement of the Board of Land and Natural Resources and its counsel and the Liliuokalani Trust, provided, however, that relocation costs shall be borne by the party proposing relocation.

This conveyance and the covenants of the Grantor shall be jointly and severally binding upon the person or persons identified above as "Grantor" and the Grantor's successors, in trust and assigns, and shall run in favor of and inure to the benefit of the person or persons identified above as "Grantee" and the Grantee's successors and assigns. The use herein of the singular in reference to a party shall include the plural and the use of a pronoun of any gender shall include all genders. The term "person" shall mean and include an individual, partnership, association or corporation, as the context may require.

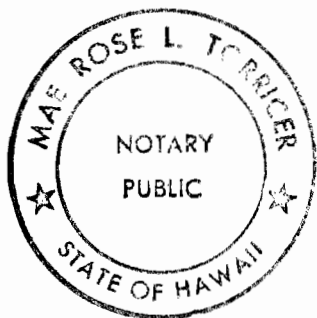
IN WITNESS WHEREOF, the Grantor has caused these presents to be duly executed this \_\_\_\_\_ day of MAY 5 1992, 19\_\_\_\_.

THE TRUSTEES OF THE  
LILIUOKALANI TRUST

By David M. Peters  
DAVID M. PETERS  
Its Trustee



AND on this \_\_\_\_\_ day of MAY 5 1992, 19\_\_\_\_  
before me appeared PHILIP CHING, to me personally known, who,  
being by me duly sworn, did say that he is the Executive Vice  
President of FIRST HAWAIIAN BANK, which is one of the Trustees of  
the LILIUOKALANI TRUST; that the seal affixed to the foregoing  
instrument is the corporate seal of said corporation; that said  
instrument was signed and sealed on behalf of said corporation by  
authority of its Board of Directors, and said corporation by  
authority of its Board of Directors, and said Officer  
acknowledged said instrument to be the free act and deed of said  
corporation as Co-Trustee as aforesaid.



*Mae Rose L. Torrice*  
Notary Public, State of Hawaii  
My commission expires: MAR 27 1996

4534B



STATE OF HAWAII  
SURVEY DIVISION  
DEPT. OF ACCOUNTING AND GENERAL SERVICES  
HONOLULU

C.S.F. No. 21,700

April 20, 1992

PROPOSED  
ACQUISITION FOR LAND BANKING

PARCEL A

Keahuolu, North Kona, Island of Hawaii, Hawaii

Being a portion of Royal Patent 6851, Land Commission Award 8452, Apana 12 to Keohokalole.

Being also all of Lot 1 of Keahuolu Subdivision as shown on File Plan 2041 filed in the Office of the Bureau of Conveyances of the State of Hawaii and containing an AREA OF 450.005 ACRES.

Subject, however to Easement "B" for pipeline purposes as recorded in Liber 7001, Page 314 affecting the above-described lot.

Subject also to a 10.00 foot and a 20.00 foot Future Road Widening setback lines affecting the above-described lot.

SURVEY DIVISION  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII

By: Raymond S. Nakamura  
Raymond S. Nakamura  
Land Surveyor gm

EXHIBIT "A"

FILE PLAN 2041

**KEAHUOLU SUBDIVISION**

LAND SITUATED ON THE NORTHEASTERLY SIDE OF QUEEN KAALIMANU HIGHWAY AND ON THE NORTHEASTERLY SIDE OF PALANI ROAD

**AT KEAHUOLU, NORTH KONA ISLAND OF HAWAII, HAWAII**

Being a portion of Boy's Palms, 8851, Land Commission Averd 8452 Apone, 12 to A. Keohokaloie (Certificate of Boundaries No. 45)

**SUBDIVIDED INTO LOTS 1 AND 2**

**AREA = 995.491 Acres**

**OWNER: Queen Liliuokalani Trust Estate**  
**ADDRESS: c/o First Hawaiian Bank Trust Division**  
**P. O. Box 3200**  
**Honolulu, Hawaii 96801**

This map was prepared by and under the direct supervision of the undersigned between November 7, 1988 and May 7, 1990 and is subject to the State Surveyor with my Certification  
 Folder Number 905-310

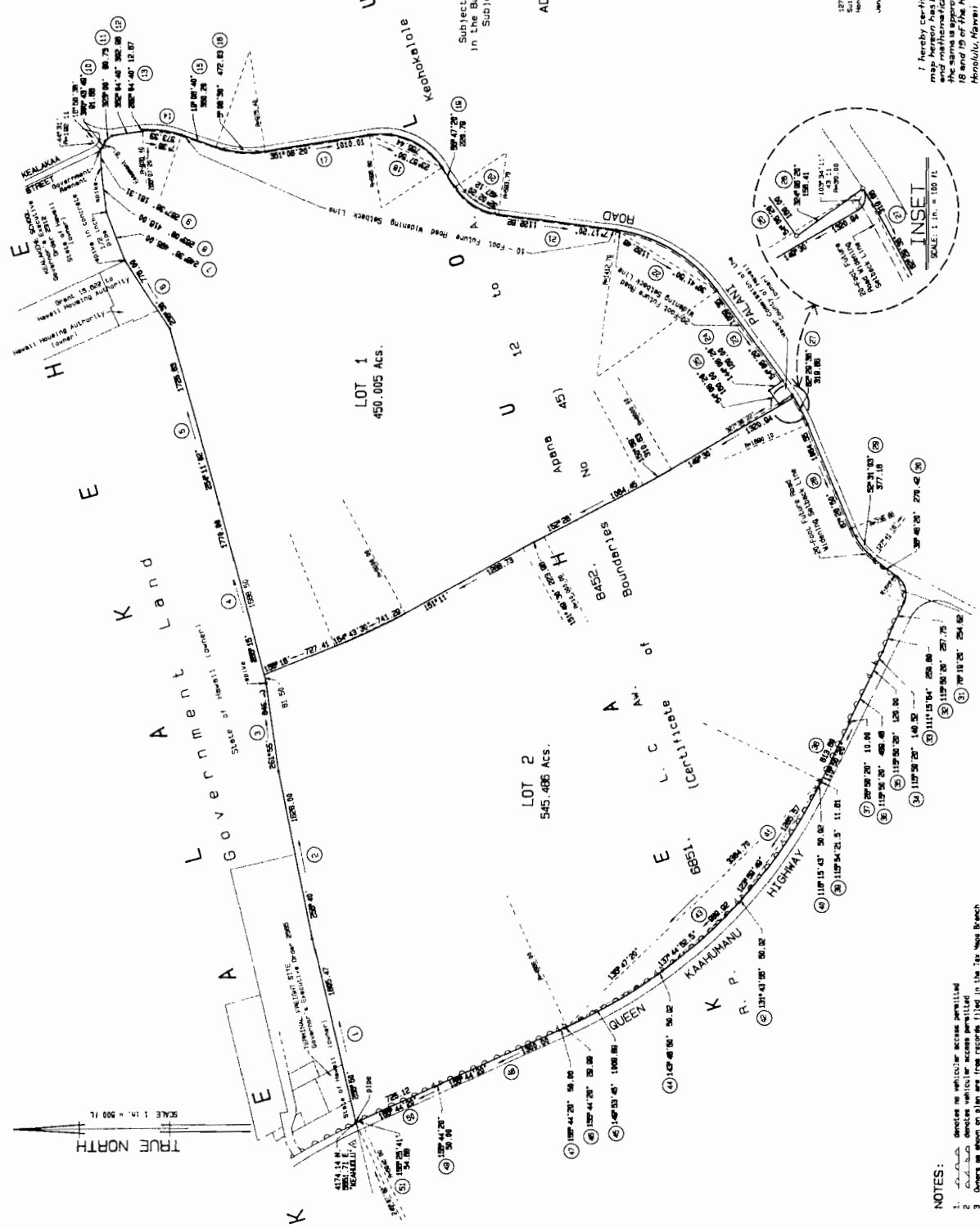
**BELT COLLINS & ASSOCIATES**  
 1000 Aiea Avenue, Suite 200, Honolulu, Hawaii 96813  
 December 8, 1990  
 Registered Professional Surveyor  
 Certificate Number 1128

The description is from an actual survey on the ground made by me under the direct supervision of the undersigned between October 8, 1990 and January 15, 1991 and may be checked by the State Surveyor with my Field Book Number 752-000-791

**TOMILL, SHIBESKA & ASSOCIATES**  
 1275 Queen Emma Street, Suite 702, Honolulu, Hawaii 96813  
 January 31, 1991  
 Registered Professional Surveyor  
 Certificate Number 879

I hereby certify that the description of survey and metes and bounds of the lots shown on this map and mathematical computations thereon are correct and the same is approved in accordance with Sections 502-17, 18 and 19 of the Hawaii Revised Statutes.  
 April 26, 1991  
 State of Hawaii  
 Bureau of Conveyances  
 Received the filing of this map and approved it on this day of April 26, 1991  
 and filed in File No. 2041  
 Registrar of Conveyances

**METES AND BOUNDS DESCRIPTION RECORDED IN DOCUMENT NO. 91-053778**



- NOTES:**
1. Shows the location of easements.
  2. Shows the location of easements.
  3. Owners as shown on plan are from records filed in the Tax Map Branch.
  4. Figures shown thus (7) indicate number of courses in description.

Reviewed and Approved by the Executive Director             
 October 20, 2005           

**FOR ACTION**

**SUBJECT:** Approval to Acquire Non-Ceded Land in Kona, Hawaii, TMK (3) 7-4-08: por. 056, from DLNR, and Relinquishment of Development Rights to Village 10 at the Villages of La'i'opua, Kealakehe, North Kona, Hawaii TMK (3) 7-4-20: 005

**I. FACTS**

Project:	Kona Non-Ceded Land
Address:	Palani Road, Kona, Hawaii
HCDCH Involvement:	Owner/Lessor
Market:	140% and below the HUD Median Income
Type:	Single and Multi-Family Housing Project For-Sale or Rental
No. of Units:	1,125 units (estimated)
TMK:	(3) 7-4-08: por. 056
Acreage:	272 Acres

- A. The State of Hawaii owns 300.005 acres of non-ceded land on Palani Road in Kona, Hawaii, TMK (3) 7-4-08: 56 (Parcel 56). See attached TMK map labeled as Exhibit "A."
- B. Approximately 192 acres of Parcel 56 constitutes a portion of the Villages of La'i'opua project. See attached Villages of La'i'opua Non-Ceded Lands Inventory labeled as Exhibit "B."
- C. HCDCH transferred its development rights to the Villages of La'i'opua project, except Villages 9 and 10, to the Department of Hawaiian Home Lands (DHHL) by Transfer Agreement dated December 30, 2004.
- D. On January 28, 2005, the HCDCH Board approved the relinquishment of its development rights to Village 9 to the Department of Land and Natural Resources (DLNR) for the development of a medical facility.

**II. DISCUSSION**

- A. After further discussion between DHHL, DLNR and HCDCH, DHHL is amenable to excluding a portion of the Villages of La'i'opua project on Parcel 56, provided that HCDCH relinquishes its development rights to Village 10 to DHHL, so that HCDCH may acquire the portion of Parcel 56 that is not a part of the Villages of La'i'opua project for the development of affordable housing on that parcel.
- B. On August 29, 2005, HCDCH submitted a request to DLNR for approximately 250 acres of Parcel 56 for affordable housing.
- C. Based upon a revised map received from DHHL on September 2, 2005, on September 8, 2005, HCDCH submitted a revised request to DLNR for the fee title to approximately 272 acres of Parcel 56 for the development of affordable housing.

- D. The terms of the acquisition of Parcel 56 would be as follows:
1. The price shall be \$0.
  2. The left (north) boundary of Parcel 56 shall be subject to the approvals of DHHL and HCDCH and shall essentially follow the master planned boundaries of the Villages of La'i'opua, along Village 6, Road E, the Village Center, and Keanalehu Drive, excluding Villages 12, 13 and 14, the elementary school, park, Road B, Road E and Keanalehu Drive on Parcel 56, from the Villages of La'i'opua project, as shown on the attached Exhibit "C";
  3. HCDCH will be the master developer or issue a Request for Proposals (RFP) for development of this non-ceded parcel for affordable housing. The north boundary of Parcel 56 will be done by the selected RFP developer (if not done sooner by HCDCH); and
  4. Conveyance of title shall be as requested by HCDCH, subject to the following:
    - (a) Completion of subdivision of the north boundary; and
    - (b) HCDCH's relinquishment of its development right to Village 10 of the Villages of La'i'opua project to the DHHL.

The portion of Parcel 56 that is to remain a part of the Villages of La'i'opua project is approximately 28.24 acres as itemized on the attached Exhibit "B."

- E. Village 10 of the Villages of La'i'opua is 21.453 acres and is master planned for residential use. HCDCH's approval to relinquish its development rights to Village 10 is based upon the following conditions:
1. DHHL shall accept the property "AS IS"; and
  2. DHHL shall be responsible for complying with all laws and requirements, including the mitigation of impacts to endangered plant species. To HCDCH's knowledge, there is one endangered plant in Village 10.
- F. This arrangement is subject to the approvals of the Hawaiian Homes Commission (at DHHL's discretion), the Board of Land and Natural Resources, and the HCDCH Board of Directors. The Board of Land and Natural Resources is scheduled to hear this matter on October 14, 2005.

**III. RECOMMENDATION**

That the HCDCH Board of Directors approve the following, as discussed in this For Action:

- A. Acquisition of the fee title to approximately 272 acres of Parcel 56, TMK (3) 7-4-8: por. 056, from DLNR for the development of affordable housing; and
- B. Relinquishment of its development rights to Village 10 of the Villages of La'i'opua, TMK (3) 7-4-20: 005, to the DHHL;

Subject to the following:

- A. Approvals by the Hawaiian Homes Commission (at DHHL's discretion) and the Board of Land and Natural Resources; and
- B. Other terms and conditions as may be required by the Executive Director.

Attachment: Exhibit "A" TMK Map of Parcel 56  
Exhibit "B" Non-Ceded Land Inventory  
Exhibit "C" Proposed Area to HCDCH for Affordable Housing

Prepared by: Stan S. Fujimoto, Project Manager sf  
Reviewed by: Tom Otake, Acting Development Section Chief TO

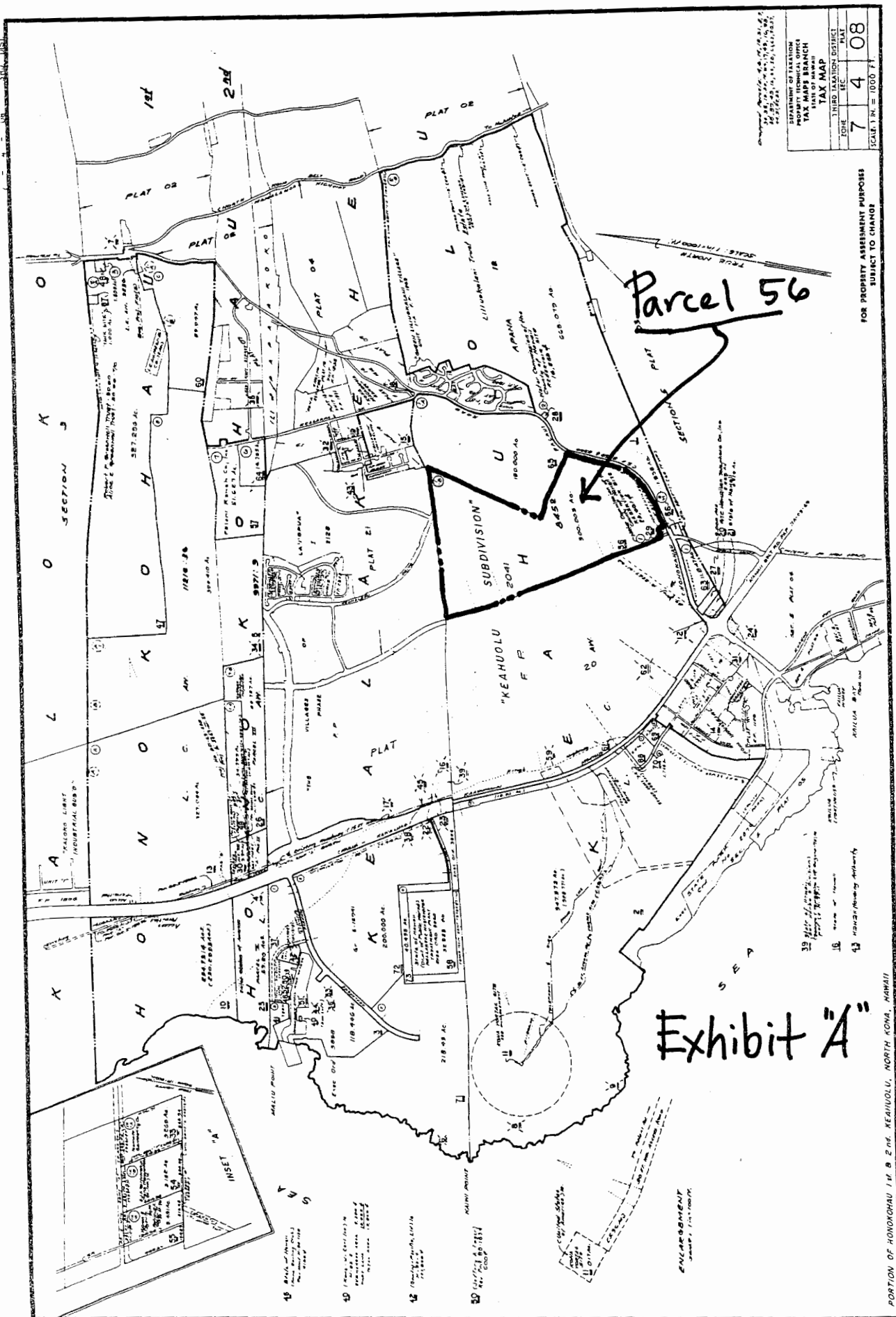
Approved by The Board of Directors at its meeting  
on OCT 20 2005

DEVELOPMENT SECTION

Please take necessary action.

Stephanie Aweiro  
EXECUTIVE DIRECTOR





DEPARTMENT OF TAXATION			
TAX MAP BRANCH			
PART OF HAWAII			
TAX MAP			
NO.	THIRD TAXATION DISTRICT		
7	4	08	
SCALE 1 IN. = 1000 FT.			

FOR PROPERTY ASSESSMENT PURPOSES  
SUBJECT TO CHANGE

Exhibit "A"

PORTION OF HONOLULU, 1st & 2nd, NEAHDOLU, NORTH KONA, HAWAII

9/2/05

## VILLAGES OF LA'I'OPUA NON-CEDED LANDS INVENTORY

Area	Total Est.		
	Master Plan Area (Acres)	Ceded Portion*	Non-Ceded Portion
Village 6	49.70	32.20	17.50
Village Center	14.50	7.60	6.90
Elementary School	9.60	0.20	9.40
Park	4.50	0.00	4.50
Village 1	53.50	49.66	3.84
Village 12	51.10	0.00	51.10
Village 13	50.80	0.02	50.78
Village 14	31.40	0.00	31.40
Roadway B	12.00	3.42	8.58
Roadway E	3.70	1.23	2.47
Keanalehu Drive	12.70	7.04	5.66
<b>Laiopua Portion of Parcel 56</b>			<b>192.13</b>
<b>If Less:</b>			
Village 12			51.10
Village 13			50.78
Village 14			31.40
Roadway B			8.58
Roadway E			2.47
Keanalehu Drive			5.66
Elementary School			9.40
Park			4.50
<b>Subtotal</b>			<b>163.90</b>
<b>Net Non-Ceded to DHHL - Approx.</b>			<b>28.24</b>
<b>Non-Ceded Parcel to HCDCH</b>			<b>271.77</b>
<b>Total Area of Parcel 56</b>			<b>300.01</b>
<b>*From File Plan 2128</b>			

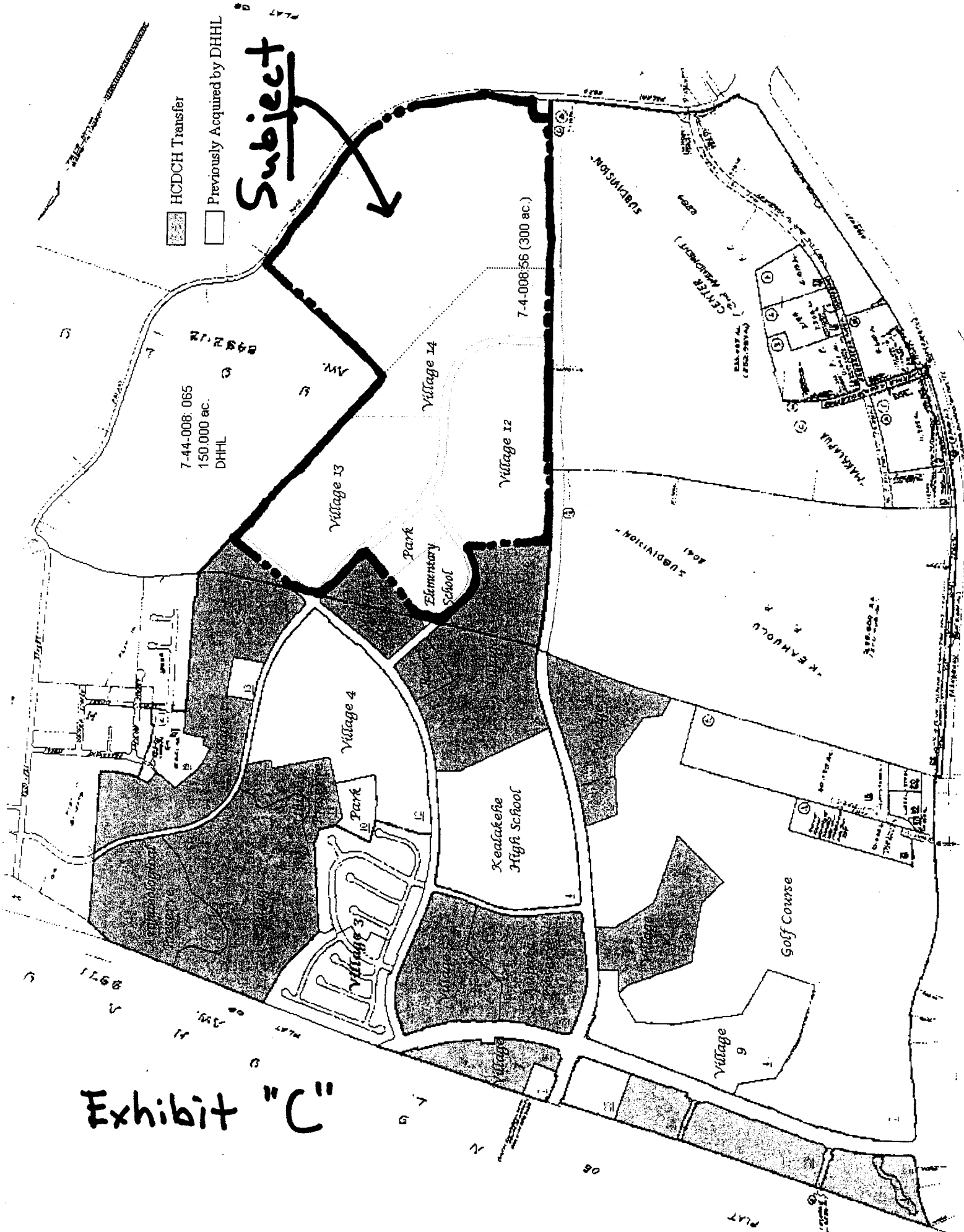


Exhibit "C"

THE ORIGINAL OF THE DOCUMENT  
RECORDED AS FOLLOWS:  
STATE OF HAWAII

BUREAU OF CONVEYANCES

DATE \_\_\_\_\_ TIME \_\_\_\_\_  
DOCUMENT N Doc 2007-131829  
JUL 24, 2007 08:02 AM

LAND COURT SYSTEM

REGULAR SYSTEM

Return by Mail ( ) Pickup (✓) To:

DEPT. OF LAND AND NATURAL RESOURCES  
LAND DIVISION

Total Number of Pages: 2

LOD No. 28,884

Tax Map Key No. (3) 7-4-008:Por. 056

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS:

THAT, effective as of the 9th day of July,  
20 07, the STATE OF HAWAII, hereinafter referred to as the  
"Grantor," by its Board of Land and Natural Resources, acting  
pursuant to Section 171-95(a)(1), Hawaii Revised Statutes, for  
good and valuable consideration, paid to and at the Department of  
Land and Natural Resources by HAWAII HOUSING FINANCE AND  
DEVELOPMENT CORPORATION, a public body and a body corporate and  
politic, whose address is 677 Queen Street, Suite 300, Honolulu,  
Hawaii 96813, hereinafter referred to as the "Grantee," the  
receipt whereof is hereby acknowledged, does hereby remise,  
release and forever quitclaim unto the Grantee, the Grantee's  
successors and assigns, all of its right, title, interest, claim  
and demand in and to that certain parcel of land situate at  
Keahuola, North Kona, Island of Hawaii, Hawaii, described as  
"Portion of Keahuolu Subdivision File Plan 2041, Lot A-1,"  
containing an area of 271.842 acres, subject, however, to 20-foot  
and 10-foot future road widening setback lines along Palani Road,  
more particularly described in Exhibit "A" and delineated on

235152\_1.DOC

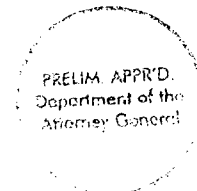


Exhibit "B," both of which are attached hereto and made parts hereof, said exhibits being respectively, a survey description and survey map designated C.S.F. No. 24,420 and dated April 2, 2007, prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii.

RESERVING TO THE STATE OF HAWAII, ITS SUCCESSORS AND ASSIGNS, THE FOLLOWING:

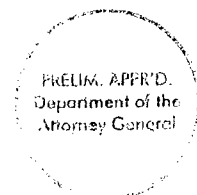
1. All minerals as hereinafter defined, in, on or under the land and the right, on its own behalf or through persons authorized by it, to prospect for, mine, and remove these minerals and to occupy and use so much of the surface of the ground as may be required for all purposes reasonably extending to the mining and removal of these minerals by any means whatsoever, including strip mining. "Minerals", as used herein, shall mean any or all oil, gas, coal, phosphate, sodium, sulphur, iron, titanium, gold, silver, bauxite, bauxitic clay, diaspore, boehmite, laterite, gibbsite, alumina, all ores of aluminum and, without limitation thereon, all other mineral substances and ore deposits, whether solid, gaseous, or liquid, including all geothermal resources, in, on, or under the land, fast or submerged; provided, that "minerals" shall not include sand, gravel, rock, or other material suitable for use and used in general construction in furtherance of the Grantee's permitted activities on the land and not for sale to others.

2. All surface and ground waters appurtenant to the land and the right on its own behalf or through persons authorized by it, to capture, divert, or impound the same and to occupy and use so much of the land as may be required in the exercise of this right reserved.

Provided, however, that as a condition precedent to the exercise of the rights reserved in Paragraphs 1 and 2, just compensation shall be paid to the Grantee for any of Grantee's improvements taken.

AND the Grantee, for the Grantee's successors and assigns, covenants with the Grantor and its successors as follows:

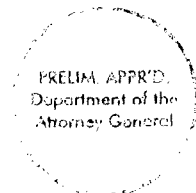
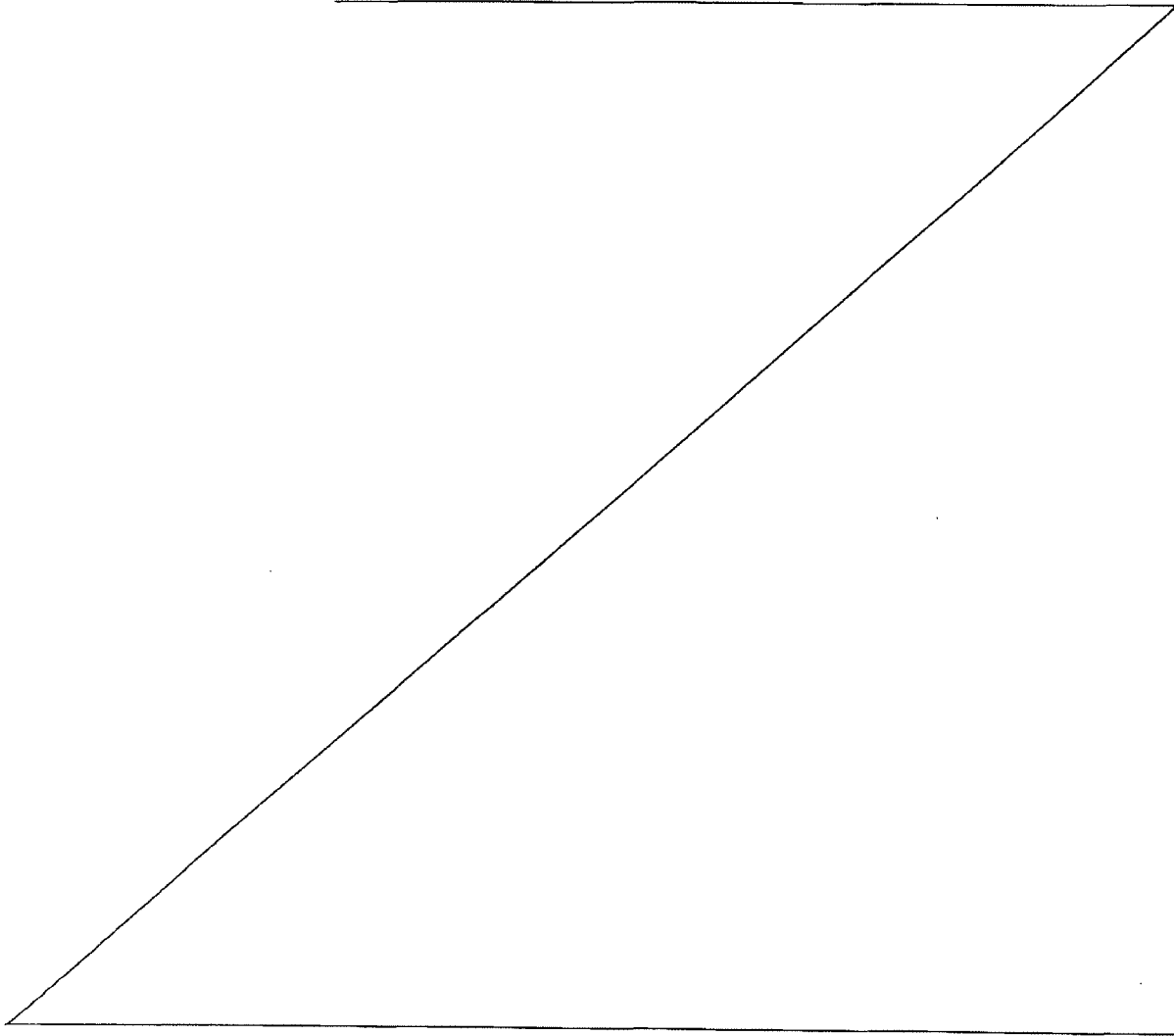
1. The use and enjoyment of the land conveyed shall not be in support of any policy which discriminates against anyone based upon race, creed, sex, color, national origin, religion, marital status, familial status, ancestry, physical handicap, disability, age or HIV (human immunodeficiency virus) infection.



2. This conveyance is for the purpose of developing affordable housing, subject to a reservation to the State of Hawaii, Department of Education, for a school site within the premises.

SUBJECT TO rights of native tenants and regulatory rights and ownership rights (if any) of the State of Hawaii established pursuant to state law including Chapter 6E, Hawaii Revised Statutes, over prehistoric or historic remains found in, on, or under the land.

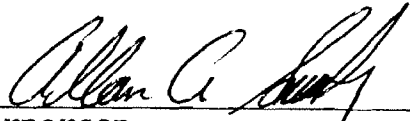
TO HAVE AND TO HOLD the same together with all of the rights, easements, privileges and appurtenances thereunto belonging or in anywise appertaining or held and enjoyed therewith unto said Grantee, the Grantee's successors and assigns, forever.



IN WITNESS WHEREOF, the STATE OF HAWAII, the Grantor herein, has caused the seal of the Department of Land and Natural Resources to be hereunto affixed and these presents to be duly executed this 9<sup>th</sup> day of July, 2007, and HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION, a public body and a body corporate and politic, the Grantee herein, has caused these presents to be executed this 3<sup>rd</sup> day of July, 2007, both effective as of the day, month, and year first above written.

STATE OF HAWAII

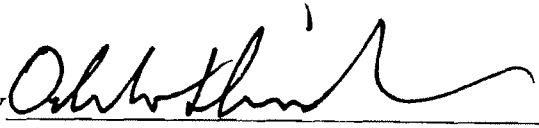
Approved by the Board of Land and Natural Resources at its meetings held on August 27, 2004 and October 14, 2005.

By   
Chairperson  
Board of Land and  
Natural Resources

*Am*

GRANTOR

HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION, a public body and a body corporate and politic

By   
Orlando Davidson  
Its Executive Director

GRANTEE

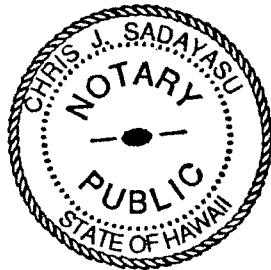
APPROVED AS TO FORM:

  
Deputy Attorney General

Dated: 6/4/07

STATE OF HAWAII )  
 ) SS.  
CITY AND COUNTY OF HONOLULU )

On this 3rd day of JULY, 2007,  
before me appeared ORLANDO DAMOSON, to me personally  
known, who, being by me duly sworn, did say that he/she is the  
EXECUTIVE DIRECTOR of HAWAII HOUSING FINANCE AND DEVELOPMENT  
CORPORATION, a public body and a body corporate and politic, and  
that the seal affixed to the foregoing instrument is the  
corporate seal of said corporation and that said instrument was  
signed and sealed on behalf of said corporation by authority of  
its Board of Directors, and the said ORLANDO DAMOSON,  
EXECUTIVE DIRECTOR, acknowledged that he/she executed said  
instrument to be the free act and deed of said corporation.

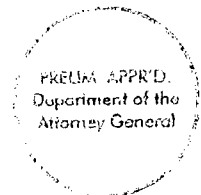


*Chris J. Sadayasu*

Notary Public, State of Hawaii

Chris J. Sadayasu

My commission expires: MAR 30 2011







**STATE OF HAWAII**

**SURVEY DIVISION**

**DEPT. OF ACCOUNTING AND GENERAL SERVICES  
HONOLULU**

C.S.F. No. 24,420

April 2, 2007

**PORTION OF KEAHUOLU SUBDIVISION  
FILE PLAN 2041**

**LOT A-1**

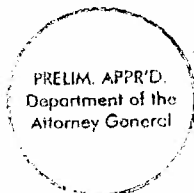
**Keahuolu, North Kona, Island of Hawaii, Hawaii**

Being a portion of Royal Patent 6851, Land Commission Award 8452, Apana 12 to A. Keohokalole.

Being also a portion of Lot 1 of Keahuolu Subdivision, File Plan 2041 conveyed to the State of Hawaii by Trustees of the Liliuokalani Trust by warranty deed dated May 5, 1992 and recorded as Document No. 92-083200 (Land Office Deed S-27927).

Beginning at the east corner of this parcel of land, the southeast corner of Department of Hawaiian Home Lands and on the west side of Palani Road, the coordinates of said point of beginning referred to Government Survey Triangulation Station "KEAHUOLU" being 2799.82 feet North and 14,497.60 feet East, thence running by azimuths measured clockwise from True South:-

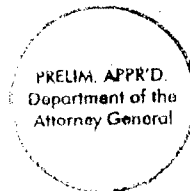
1. 7° 17' 20" 1122.82 feet along the west side of Palani Road;



C.S.F. No. 24,420

April 2, 2007

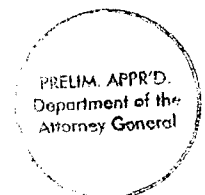
2. Thence along the west side of Palani Road on a curve to the right with a radius of 1412.70 feet, the chord azimuth and distance being:  
 30° 41' 50"                      1122.48 feet;
3. 54° 06' 20"                      1059.35 feet along the west side of Palani Road;
4. 144° 06' 20"                      160.00 feet along Reservoir Site;
5. 54° 06' 20"                      160.00 feet along Reservoir Site;
6. 324° 06' 20"                      156.41 feet along Reservoir Site;
7. Thence along the west side of Palani Road on a curve to the right with a radius of 30.00 feet, the chord azimuth and distance being:  
 103° 34' 11"                      43.11 feet;
8. 149° 30'                      1320.94 feet along Lot 2 of Keahuolu Subdivision, File Plan 2041;
9. Thence along Lot 2 of Keahuolu Subdivision, File Plan 2041 on a curve to the right with a radius of 6000.00 feet, the chord azimuth and distance being:  
 150° 59'                      310.63 feet;
10. 152° 28'                      1064.45 feet along Lot 2 of Keahuolu Subdivision, File Plan 2041;
11. Thence along Lot 2 of Keahuolu Subdivision, File Plan 2041 on a curve to the left with a radius of 10,000.00 feet, the chord azimuth and distance being:  
 151° 49' 30"                      223.98 feet;
12. 151° 11'                      1288.73 feet along Lot 2 of Keahuolu Subdivision, File Plan 2041;
13. Thence along Lot 2 of Keahuolu Subdivision, File Plan 2041 on a curve to the right with a radius of 6000.00 feet, the chord azimuth and distance being:  
 153° 12' 55.9"                      425.53 feet;



C.S.F. No. 24,420

April 2, 2007

14. 234° 24' 898.10 feet along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041;
15. Thence along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041 on a curve to the right with a radius of 590.00 feet, the chord azimuth and distance being: 165° 59' 40" 676.91 feet;
16. 201° 00' 47.00 feet along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041;
17. 255° 15' 280.45 feet along Lots 31 and 9 of The Villages of La'i'opua, Phase I, File Plan 2128;
18. 295° 11' 864.62 feet along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041;
19. Thence along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041 on a curve to the left with a radius of 2060.00 feet, the chord azimuth and distance being: 199° 01' 02" 629.16 feet;
20. 190° 14' 48.33 feet along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041;
21. 254° 11' 02" 348.16 feet along Lots 37, 7 and 34 of The Villages of La'i'opua, Phase I, File Plan 2128;
22. 280° 14' 787.44 feet along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041;
23. 15° 00' 2449.46 feet along Department of Hawaiian Home Lands;





THE ORIGINAL OF THE DOCUMENT  
RECORDED AS FOLLOWS:  
STATE OF HAWAII

BUREAU OF CONVEYANCES

Doc 2009-100211  
JUN 29, 2009 11:00 AM

LAND COURT SYSTEM

REGULAR SYSTEM

Return by Mail (X) Pickup ( ) To:

Hawaii Housing Finance and Development  
Corporation  
677 Queen Street, Suite 300  
Honolulu, Hawaii 96813  
Attention: Stan S. Fujimoto, Project Manager

Land Court ( ) Regular ( ) Double (X)

Total Pages: 8

**QUITCLAIM DEED WITH RESERVATION OF RIGHTS**  
**(KAMAKANA VILLAGES AT KEAHUOLU**  
**272 Acres)**

THIS INDENTURE is made this 26th day of June, 2009, by and between the **HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION**, a public body and a body corporate and politic of the State of Hawaii, whose principal place of business and post office address is 677 Queen Street, Suite 300, Honolulu, Hawaii, 96813 ("Grantor"), and **F.H.T. EXCHANGE, INC.**, a Hawaii corporation, whose principal place of business and mailing address is 201 Merchant Street, Suite 2000, Honolulu, Hawaii, 96813 ("Grantee").

**WITNESSETH:**

That the Grantor, in consideration of TEN DOLLARS (\$10.00) and other valuable consideration to it paid by the Grantee, receipt of which is acknowledged, and of the terms, covenants, conditions, agreements, and restrictions hereinafter set forth and on the Grantee to be faithfully observed and performed, does hereby remise, release and quitclaim to the Grantee, its successors and assigns, the property described in Exhibit "A", attached hereto and made a part hereof ("Property").

TO HAVE AND TO HOLD the same, together with all of the improvements thereon, and the tenements, rights, easements, privileges and appurtenance thereunto belonging or appertaining or held and enjoyed therewith to the Grantee as aforesaid, forever.

SUBJECT, HOWEVER, TO all covenants and conditions set forth in the Development Agreement dated March 31, 2009 (the "Development Agreement") made by and between Grantor and Forest City Hawaii Kona, LLC, a Hawaii limited liability company ("Forest City"), a short form of which is recorded in the Bureau of Conveyance of the State of Hawaii as Document No. 2009-078712 and the Escrow Agreement dated June 26, 2009 (the "Escrow Agreement") made by and among Grantor, Grantee, Forest City and First Hawaii Title Corporation.

Grantee hereby acknowledges and agrees that Grantor and Forest City shall have all of the rights reserved unto each party, respectively, under the Development Agreement and the Escrow Agreement, including, but not limited to the rights to develop, convey, sell, rent, manage and operate all or a portion of the Property, and all rights related thereto, in accordance with the terms set forth in the Development Agreement and the Escrow Agreement.

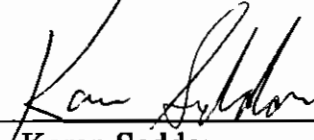
Grantee acknowledges and agrees that: (i) Grantee is accepting the Property in "AS IS, WHERE IS" condition; (ii) Grantor has made no warranties or representations as to the physical and/or legal condition of the Property and will not be responsible for any repairs thereto; (iii) that Grantee is relying solely on Grantee's own inspection and acceptance of the physical and/or legal condition of the Property and not relying on any representations or covenants, expressed or implied, written or oral, made by Grantor as to the physical and/or legal condition of the Property.

[The remainder of this page is blank. The next page is a signature page.]

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the date first above written.

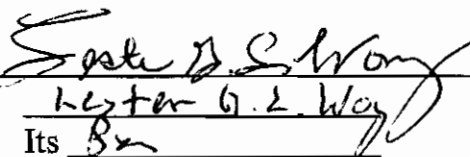
GRANTOR:

HAWAII HOUSING FINANCE AND  
DEVELOPMENT CORPORATION  
STATE OF HAWAII

By   
Karen Seddon  
Executive Director

GRANTEE:

F.H.T. EXCHANGE, INC., a Hawaii  
Corporation

By   
Lester G. E. Wong  
Its

STATE OF HAWAII )  
 ) SS  
CITY AND COUNTY OF HONOLULU )

On this 29th day of June, 2009, before me appeared KAREN SEDDON, personally known to me, who, being by me duly sworn, did say that she is the EXECUTIVE DIRECTOR of the HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION, a public body and a body corporate and politic of the State of Hawaii, that the seal affixed to the foregoing instrument is the corporate seal of the corporation, and that this 8-page QUITCLAIM DEED FOR 272 ACRES AT KAMAKANA VILLAGES AT KEAHUOLU, dated June 26, 2009, was signed and sealed on behalf of the corporation by authority of its Board of Directors, and the said officer acknowledged the instrument to be the free act and deed of the corporation.



*Jocelyn K. Iwamasa*

Name: Jocelyn K. Iwamasa  
Notary Public, State of Hawaii

1st Judicial Circuit

My commission expires: September 3 2010



STATE OF HAWAII )  
 ) SS  
CITY AND COUNTY OF HONOLULU )

On this 24<sup>th</sup> day of June, 2009, before me personally appeared Lester G. L. Wong, to me personally known, who, being by me duly sworn or affirmed, did say that such person executed the foregoing instrument as the free act and deed of such person, and if applicable in the capacity shown, having been duly authorized to execute such instrument in such capacity.

*[Handwritten Signature]*

Notary Public, State of Hawaii

Allen G. Yanos

Print Name: \_\_\_\_\_ My Commission Expires: 5/30/2010

My commission expires:



(Stamp or Seal)

Document Date:	<u>6/26/09</u>	# of Pages:	<u>8</u>
Notary Name:	<u>Allen G. Yanos</u>		<u>1<sup>st</sup></u> Circuit
Doc. Description: <u>Quitclaim Deed with Reservation of Rights (Kamukani Villages at Keahuwa 272 Acres)</u>			
<i>[Handwritten Signature]</i>			
Notary Signature			
<b>NOTARY CERTIFICATION</b>			

Exhibit "A"

**LEGAL PROPERTY DESCRIPTION**

THE LAND REFERRED TO IN THIS REPORT IS SITUATED IN THE COUNTY OF HAWAII, STATE OF HAWAII, AND IS DESCRIBED AS FOLLOWS:

PARCEL FIRST:

All of that certain parcel of land, being a portion of Royal Patent 6851, Land Commission Award 8452, Apana 12 to A. Keohokalole and also being a portion of Lot 1 of Keahuolu Subdivision, File Plan 2041, situate, lying and being at Keahuolu, North Kona, Island of Hawaii, State of Hawaii, being Lot A-1 more particularly described as follows:

Beginning at the east corner of this parcel of land, the southeast corner of Department of Hawaiian Home Lands and on the west side of Palani Road, the coordinates of said point of beginning referred to Government Survey Triangulation Station "KEAHUOLU" being 2,799.82 feet North and 14,497.60 feet East, thence running by azimuths measured clockwise from True South:

1.     7°    17'    20"    1122.82       feet along the west side of Palani Road;
  
2.     Thence along the west side of Palani Road on a curve to the right with a radius of 1412.70 feet, the chord azimuth and distance being:
  - 30°   41'   50"   1122.48       feet;
3.     54°    06'   20"   1059.35       feet along the west side of Palani Road;
4.     144°  06'   20"    160.00       feet along Reservoir Site;
5.     54°    06'   20"    160.00       feet along Reservoir Site;
6.     324°  06'   20"    156.41       feet along Reservoir Site;
  
7.     Thence along the west side of Palani Road on a curve to the right with a radius of 30.00 feet, the chord azimuth and distance being:
  - 103°  34'   11"    43.11       feet;
8.     149°  30'            1320.94       feet along Lot 2 of Keahuolu Subdivision, File Plan 2041;
  
9.     Thence along Lot 2 of Keahuolu Subdivision, File Plan 2041 on a curve to the right with a radius of 6000.00 feet, the chord azimuth and distance being:

- 150° 59' 310.63 feet;
10. 152° 28' 1064.45 feet along Lot 2 of Keahuolu Subdivision, File Plan 2041;
11. Thence along Lot 2 of Keahuolu Subdivision, File Plan 2041 on a curve to the left with a radius of 10,000.00 feet, the Chord azimuth and distance being:
- 151° 49' 30" 223.98 feet;
12. 151° 11' 1288.73 feet along Lot 2 of Keahuolu Subdivision, File Plan 2041;
13. Thence along Lot 2 of Keahuolu Subdivision, File Plan 2041 on a curve to the right with a radius of 6000.00 feet, the chord azimuth and distance being:
- 153° 12' 55.9" 425.53 feet;
14. 234° 24' 898.10 feet along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041;
15. Thence along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041 on a curve to the right with a radius of 590.00 feet, the chord azimuth and distance being:
- 165° 59' 40" 676.91 feet;
16. 201° 00' 47.00 feet along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041;
17. 255° 15' 280.45 feet along Lots 31 and 9 of the Villages of La'i'opua, Phase I, File Plan 2128;
18. 295° 11' 864.62 feet along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041;
19. Thence along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041 on a curve to the left with a radius of 2060.00 feet, the chord azimuth and distance being:
- 199° 01' 02" 629.16 feet;
20. 190° 14' 48.33 feet along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041;
21. 254° 11' 02" 348.16 feet along Lots 37, 7 and 34 of the Villages of La'i'opua, Phase I, File Plan 2128

- |     |          |         |  |
|-----|----------|---------|--|
| 22. | 280° 14' | 787.44  | feet along the remainder of Lot 1 of Keahuolu Subdivision, File Plan 2041;   |
| 23. | 15° 00'  | 2449.46 | feet along Department of Hawaiian Home Lands;  |
| 24. | 284° 50' | 1709.68 | feet along Department of Hawaiian Home Lands to the point of beginning and containing an area 271.842 acres, more or less. |

Being a portion of the lands conveyed by the following:

**Quitclaim Deed**

Grantor: Board of Land and Natural Resources  
 Grantee: Hawaii Housing Finance and Development Corporation  
 Dated: July 9, 2007  
 Recorded: July 24, 2007 in the Bureau of Conveyances of the State of Hawaii, as Document No. 2007-131829.

**PARCEL SECOND:**

All of that certain parcel of land, being a portions of the Government Land of Kealakehe, situate, lying and being at Kealakehe, North Kona, Island of Hawaii, State of Hawaii being Lot 7, area 0.022 acre, more or less and Lot 9 area 0.198 acre, more or less of "THE VILLAGES OF LA'I'OPUA PHASE I", File Plan 2128, filed in the Bureau of Conveyances of the State of Hawaii.

Being all of the lands conveyed by the following:

**Land Patent Grant No. S-16, 019**

Grantor: State of Hawaii, by and through is Board of Land and Natural Resources  
 Grantee: Hawaii Housing Finance and Development Corporation, a public body and a body corporate and politic  
 Dated: July 9, 2007  
 Recorded: July 24, 2007 in the Bureau of Conveyances of the State of Hawaii, as Document 2007-131844.

TMK: (3) 7-4-021-020

End of Exhibit "A"

Reviewed and Approved by the Executive Director OD  
 April 11, 2008

**FOR ACTION**

**I. REQUEST**

Approval of Proposal, Execution of Development Agreement, and Conveyance of Property for a New Master Planned Mixed-Use Affordable Housing Project on Palani Road in Keahuolu, Kailua-Kona, Hawaii; TMK (3) 7-4-021: 020.

**II. FACTS**

Project: Kamakana Villages at Keahuolu  
 Address: Palani Road, Keahuolu, Kailua-Kona, Hawaii  
 TMK: (3) 7-4-021: 020  
 Acreage: 272.063 acres  
 HHFDC Involvement: Landowner/Lessor/Lender  
 Type: Master Planned Affordable, Mixed-Use Housing Project  
 Land Tenure: Fee Simple; Leasehold  
 Unit Types (Estimated):  
     631 studio/1-bedroom units  
     1,002 2-bedroom units  
     477 3-bedroom units or more  
     96 Owner-Builder  
     2,206 Total Units

470 Single-family units  
1,736 Multi-family units  
 2,206 Total Units

120,000 Gross square feet of commercial space

Target Prices: Affordable Units:  
     200 Rental units at 80% and below the HUD adjusted median income (AMI)(20 rental units with 3 bedrooms or more)  
     323 Units at 100% and below the HUD AMI  
     249 Units at 120% and below the HUD AMI  
     166 Units at 140% and below the HUD AMI  
     1,104 Total Affordable Units

Market Units:  
     294 Units at 180% and below the HUD AMI  
     432 Units at 200% and below the HUD AMI  
     301 Units at 220% and below the HUD AMI  
     75 Units at 240% and below the HUD AMI  
     1,102 Total Market Units

2,206 Total Units

Affordable Target Market: Maximum of 140% and below the HUD AMI

Developer Contact: Jon Wallenstrom, Senior Vice President  
 ForestCity Hawaii  
 5173 Nimitz Road  
 Honolulu, Hawaii 96818  
 Phone: 839-8771

- A. The Hawaii Housing Finance and Development Corporation (HHFDC) issued a Request for Proposals (RFP) on July 23, 2007 for a new master planned affordable housing project on 272.063 acres of land formerly owned by the State of Hawaii on Palani Road in Keahuolu, Kailua-Kona, Hawaii, TMK (3) 7-4-21: 020, as shown on the attached Exhibit "A" (Property).
- B. The objective of the RFP was to produce the most affordable units in the most livable community within the shortest feasible duration. Proposals were due on December 14, 2007 (as extended from November 30, 2007 by RFP Addendum No. 7). Some of the major requirements of the RFP were as follows:
- Upset price for the land is \$1 million;
  - Affordable units may be for-sale or rental units;
  - "Affordable" means 140% and below the HUD median income ;
  - Each identifiable rental, commercial, and commercial mixed-use portion of the project shall be leasehold, subject to a ground lease of \$1/year for 65 years;
  - Rental units shall remain affordable for the duration of the ground lease;
  - Developer shall be responsible for any offsite infrastructure improvements required for the project;
  - Developer shall be responsible for any requirements for a school site within the project site, including an elementary school site;
  - Developer shall be responsible for any County Parks and Recreation Department requirements for parks;
  - Developer shall be responsible for any allocable cost of the Ane Keohokalole Highway (aka midlevel road);
  - Developer shall be responsible for all entitlement approvals;
  - HHFDC will complete the EIS for the project;
  - Deadline for completion of all affordable units is 15 years from the date of project approval.
- A copy of a Fact Sheet for the RFP is attached hereto as Exhibit "B."
- C. HHFDC issued the following eight Addenda to the RFP—
- Addendum No. 1 – Topographic information and GPS location of archaeological sites;
  - Addendum No. 2 – School Impact Fee and other requirements and summary of Information Meetings held on August 22 and 28, 2007;
  - Addendum No. 3 – School Impact Fee calculation and DLNR Commission on Water Resource Management comments;
  - Addendum No. 4 – Availability of CAD file of property boundaries;
  - Addendum No. 5 – Information and Requirements for Well Sites #3 and #4;
  - Addendum No. 6 – Proposal submittal requirement for one original, 6 hard copies and an electronic copy in pdf format;
  - Addendum No. 7 – Draft Traffic Study and extension of proposal deadline to December 14, 2007; and
  - Addendum No. 8 to Priority-Listed Offerors – Request for Best and Final Offers.
- D. HHFDC acquired title from DLNR on July 9, 2007 by Land Patent Grant No. S-16,019 and Land Office Deed No. 28,884. The Land Office Deed is subject to the restriction that the conveyance is for the purpose of developing affordable housing, and subject to a reservation to the State of Hawaii, Department of Education, for a school site within the premises.
- E. Seventeen RFP packets were picked up.

- F. On December 14, 2007, HHFDC received proposals from the following two applicants:
  - UniDev Hawaii, LLC; and
  - Forest City Hawaii Residential, Inc.
- G. A selection committee consisting of the following three HHFDC employees and three outsiders was approved by the Executive Director on August 24, 2007:
  - Dan R. Davidson, HHFDC Executive Director
  - Janice Takahashi, HHFDC Chief Planner
  - Karen Seddon, HHFDC Development Branch Chief
  - Chris Yuen, County of Hawaii Planning Director
  - Ken Melrose, Senior Project Manager, Pa'ahana Enterprises LLC
  - David Goode, President, KSD Hawaii.
- H. After reviewing the proposals, the selection committee met at HHFDC on January 17, 2008 to hear presentations and separately discuss each proposal with each applicant. After deliberations, the committee decided that neither proposal was acceptable as submitted, that both applicants were priority-listed offerors, and that both applicants should be issued a Request for Best and Final Offers.
- I. On January 22, 2008, a Request for Best and Final Offers was issued to both applicants, with a deadline of 4:30 p.m. on February 29, 2008.
- J. On February 29, 2008, HHFDC received Best and Final Offers from both applicants. A summary of the Best and Final Offer proposals is attached hereto as Exhibit "C."

**III. DISCUSSION**

- A. On March 14, 2008, the selection committee met to discuss and evaluate the Best and Final Offers from the applicants and based upon the selection criteria described in the RFP, the selection committee recommends approval of the proposal for Kamakana Villages at Keahuolu, submitted by Forest City Hawaii Residential, Inc.
- B. Forest City Hawaii Residential, Inc. is a Hawaii corporation wholly owned by Forest City Residential Group, Inc., which is wholly owned by Forest City Rental Properties Corporation, a subsidiary of Forest City Enterprises, Inc.
  - 1. The officers and directors of Forest City Hawaii Residential, Inc. are listed on the attached Exhibit "D."
  - 2. Founded in 1921 and headquartered in Cleveland, Ohio, Forest City Enterprises, Inc. is a publicly traded, \$9.5 billion real estate company principally engaged in the ownership, development, management and acquisition of commercial and residential real estate and land throughout the United States. They operate with three strategic business units— Commercial, Residential and Land Development. Their portfolio includes interests in affordable residential communities, retail centers, apartment communities, condominiums, office buildings and hotels in such diverse settings as New York, Boston, Chicago, Los Angeles, Denver, Washington D.C. and Hawaii.
  - 3. In Hawaii, the Forest City Residential Group secured their first military housing development opportunity in 2004, with responsibility for owning, developing and managing 1,952 family housing units at five existing Navy

communities at Hawaii's Pearl Harbor and various bases on the island. In 2006, their military family housing portfolio added another 2,500 units for the Navy and more than 1,100 homes for Marine families in Hawaii. In total nationwide, they are currently charged with owning, managing and developing military family communities representing 7,300 housing units.

C. The project's development team includes the following:

1. **Developer:**  
Forest City Hawaii Residential, Inc.  
Jon Wallenstrom, Senior Vice President
2. **Project and Development Consultant:**  
Thomas H. Yamamoto
3. **General Engineering Construction:**  
EM Rivera & Sons, Inc.  
Hiram Rivera
4. **Land Planning and Architectural Designs**  
Riehm Owensby Planners Architects  
Michael J. Riehm, AIA
5. **Land Planning & Architectural Designs:**  
Calthorpe Associates  
Joseph Scanga & David M. Blake
6. **Civil Engineering:**  
Lyon Associates, Inc.  
Jim Lyon
7. **Property Management:**  
Forest City Residential Group, Inc.  
Gregory S. Raap

D. The applicant and its development team are experienced with real estate development and the ownership and operation of affordable rental housing projects in Hawaii.

E. The developer proposes to call the project: "Kamakana Villages at Keahuolu."

F. As described in Exhibit "C", the total unit types and target prices are proposed as follows, in six phases:

Unit Types (Estimated):	631	studio/1-bedroom units
	1,002	2-bedroom units
	477	3-bedroom units or more
	<u>96</u>	Owner-Builder
	2,206	Total Units

Target Prices:	Affordable Units:
	200 Rental units at 80% and below the HUD adjusted median income (AMI)(20 rental units with 3 bedrooms or more)
	323 Units at 100% and below the HUD AMI
	249 Units at 120% and below the HUD AMI
	<u>166</u> Units at 140% and below the HUD AMI
	1,104 Total Affordable Units



Market Units:

294	Units at 180% and below the HUD AMI
432	Units at 200% and below the HUD AMI
301	Units at 220% and below the HUD AMI
<u>75</u>	Units at 240% and below the HUD AMI
1,102	Total Market Units

2,206 Total Units

Because of the size of the project, the unit mix is an estimate and subject to variation as approved by HHFDC depending on market conditions at the time each phase is started.

- G. While the proposed target prices to the respective income groups for the affordable for-sale units are as described above, if the affordable units cannot be preferentially sold to the lower income groups as approved by HHFDC, HHFDC may approve an increase of the proposed affordable target market up to a maximum of 140% and below the HUD AMI.
- H. Forest City's proposal also includes 120,000 gross square feet of commercial space, 25 acres of parks, 13 acres for an elementary school, 7.6 acres for archaeological preserves and private sewer treatment plant, and 19 acres of open space.
- I. The proposed Master Plan, Typical Neighborhood Concept, Phasing and Building Plans are shown on the attached Exhibit "E."
- J. The master plan for Kamakana Villages at Keahuolu is conceived as a "New Town" with a centrally-located town center and distinctive neighborhoods. The town center and community park are located within a five minute walking distance to the majority of residences, thus encouraging walking to amenities rather than depending on cars. Housing is organized with higher densities closer to the town center and other basic services, reducing the amount of traffic on the neighborhood streets. Each individual neighborhood is designed around smaller neighborhood parks, which are linked with pedestrian and bike paths, thus providing a safer environment to encourage these activities and reduce dependency on the automobile for transportation.
- K. The design goals of the master plan are as follows:
  - 1. Create a recognizable and strong sense of place;
  - 2. Promote a social interaction among the residents by providing a safe, pedestrian-oriented streetscape;
  - 3. Mitigate the speed of internal traffic; and
  - 4. Provide a streetscape that is designed not only to accommodate traffic but also to become an important unifying amenity in the neighborhood.
- L. Sustainability and energy efficient design concepts will be implemented in the project that supports the LEED (Leadership in Energy and Environmental Design) program. Standard features in the homes will include solar water heating, "Energy Star" rated appliances, high-performance, low-E window systems and building insulation that exceeds code requirements.
- M. The project proposes to have its own private sewage treatment plant with accompanying dual water system so that the treated water can be used for irrigation purposes.

- N. The for sale units will be in fee simple and subject to HHFDC's buy-back and shared appreciation restrictions.
- O. Rental projects, commercial and commercial mixed-use projects will be developed under a ground lease at \$1.00/year for 65 years.
- P. The total estimated project budget for land development is \$150 million. The developer's estimate for off-site improvements is approximately \$77 million, as shown in the attached Exhibit "F." The developer proposes to finance the land development using equity and private construction financing. However, the developer estimates that there is a need for \$28 million for early stage infrastructure subsidies in order for this project to be successful. The developer proposes to seek funding for these infrastructure improvements from a wide variety of sources, such as State Capital Improvement Project money, federal Department of Transportation Highway/roadway funds, Low Income Housing Tax Credits, General Excise Tax exemptions, Tax Incentive Financing, sale of excess affordable housing credits and any other available options.
- Q. A summary appraisal dated May 25, 2007 estimated the range of value of the property with all entitlements and off-site improvements in place, at between \$71 to \$75 million, for Option B (1,840 units) and \$78 to \$82 million for Option C (2,330 units). A summary appraisal dated June 5, 2007 estimated the value of the property without entitlements and off-site improvements at \$5.4 million.
- R. The project will seek exemptions from the General Excise Tax.
- S. The project will require exemptions from development requirements pursuant to HRS sections 46-15.1 or 201H-38. In accordance with the RFP, the developer will work with the County of Hawaii and the Land Use Commission to obtain applicable project approvals for entitlements.
- T. The estimated start of construction of the first building is June 2010 and estimated completion of the last building is October 2023.

**IV. RECOMMENDATION**

That the HHFDC Board of Directors approve the following for a new master planned affordable housing project on Palani Road at Keahuolu, North Kona, Hawaii, TMK (3) 7-4-21: 20, substantially as described in this For Action:

- A. Proposal for Kamakana Villages at Keahuolu submitted by Forest City Hawaii Residential, Inc., a 2,206-unit mixed-use affordable housing project targeted to families within 80% to 140% of the HUD median income, with a transit stop, town center, parks, an elementary school, archaeological preserves and common areas;
- B. Execution of a development agreement with Forest City Hawaii Residential, Inc. substantially consistent with this For Action; and
- C. Conveyance of the Property to the applicable party substantially in accordance with this For Action and the executed development agreement;

Subject to the following:

- D. If a development agreement is not executed with the developer within one calendar year from the date of this approval, HHFDC reserves the sole and absolute right to terminate negotiations with the developer and reissue the RFP; and

E. Other terms and conditions deemed necessary and acceptable by the Executive Director.

F. Forest City to provide internal rate of return (IRR) for the Board's information.

Attachments:

- Exhibit "A" - Location Map
- Exhibit "B" - Keahuolu RFP Fact Sheet
- Exhibit "C" - Summary of RFP Proposals
- Exhibit "D" - Officers and Directors of Developer
- Exhibit "E" - Master Plan, Typical Neighborhood Concept, Phasing and Building Plans
- Exhibit "F" - Estimated Off-Site Improvements Budget

Prepared by: Stan S. Fujimoto, Project Manager SK

Reviewed by: Karen Seddon, Development Branch Chief [Signature]

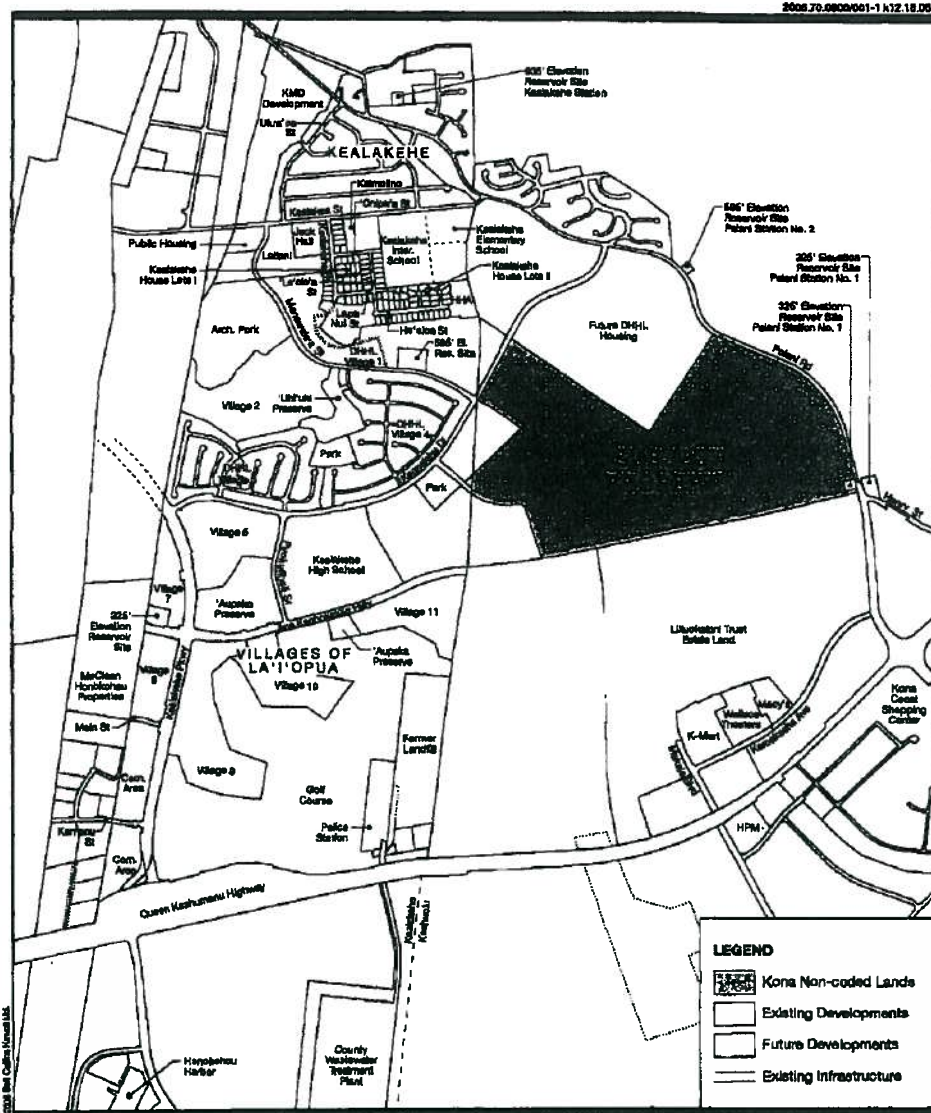
Director Linda Smith moved, seconded by Director David Lawrence, to accept staff's recommendation with the following addition to the IV. Recommendation Section:

Subject to the following:  
F. Forest City to provide internal rate of return (IRR) for the Board's information.

Approved by The Board of Directors at its meeting on APR 11 2008 as amended

Please take necessary action.

[Signature]  
EXECUTIVE DIRECTOR



**KONA NON-CEDED LAND**  
Hawaii Housing Finance and Development Corporation

**EXHIBIT "A"**

**KEAHUOLU  
REQUEST FOR PROPOSALS (RFP)  
FACT SHEET**

- I. **Objective:** To produce the maximum number of affordable units in the most livable community within the shortest feasible duration.
- II. **Site Description:** Non-ceded land owned by the State of Hawaii on Palani Road, Keahuolu, Kona, Hawaii; TMK (3) 7-4-08: por. 056.; approximately 272 acres.
- III. **Zoning:** LUC Agriculture; County of Hawaii, Agriculture A-5a.
- IV. **RFP Process**
  - A. **Advertisement:** July 23, 2007
  - B. **Informational Meetings:**
    - a) **HHFDC Boardroom:** 10:00 a.m. on August 22, 2007
    - b) **West Hawaii Mayor's Office:** 10:00 a.m. on August 28, 2007
  - C. **RFP Submittal:** By 4:30 p.m. on November 30, 2007
  - D. **Developer Selection:** Target of February 2008
- V. **Major Project Requirements:**
  - A. **Upset price for the land is \$1,000,000 due within one year from date of project approval;**
  - B. **"Affordable" is defined as 140% and below the HUD median income;**
  - C. **Affordable units may be for-sale or rental units;**
  - D. **For-sale units may be in fee simple;**
  - E. **Each identifiable rental, commercial, and commercial mixed-use portion of the project is subject to a ground lease of \$1/year for 65 years;**
  - F. **Rental units will be owned and managed by the developer or other entity acceptable to and approved by HHFDC;**
  - G. **Rental units will remain affordable for the duration of the ground lease;**
  - H. **Developer will be responsible for any offsite infrastructure improvements required for the project;**
  - I. **Developer will be responsible for any requirements for a school site within the project site, including an elementary school site;**
  - J. **Developer will be responsible for all County Public Works Department requirements for infrastructure;**
  - K. **Developer will be responsible for any County Parks and Recreation Department requirements for parks;**
  - L. **Developer shall be responsible for any allocable cost of the Ane Keohokalole Highway (aka midlevel road);**
  - M. **Deadline for completion of all affordable units is 15 years from the date of project approval;**
  - N. **HHFDC will complete the EIS for the project;**
  - O. **Developer will be responsible for all entitlement approvals.**
- VI. **Proposal Requirements:**
  - A. **Proposal must be submitted on the Application Forms included in the RFP (no multiple or alternative proposals);**
  - B. **There is an Application fee of \$250;**
  - C. **An original, 5 hard copies, and 1 electronic copy in .pdf format of the proposal are required for submittal.**
- VII. **Major Evaluation Criteria: Total of 115 Points**
  - A. **Developer qualification, including development and management experience of the development team, for the type of project proposed - 20 points;**
  - B. **Maximum number of affordable units - 15 points;**
  - C. **Most livable community - 15 points;**
  - D. **Earliest feasible completion dates for the affordable units - 15 points;**
  - E. **Feasibility of overall project and proposal - 15 points;**
  - F. **Range and mix of affordability - 10 points;**



**KEAHUOLU  
REQUEST FOR PROPOSALS (RFP)  
FACT SHEET**

- G. Minimum use of State resources - 10 points;
- H. Maximum number of affordable rental units, with a preference for family rental units (up to a maximum of 35% rental units of the total units in the project) - 5 points;
- I. Maximum number of affordable rental units with three bedrooms or more (up to 20% of the total rental units in the project) - 5 points; and
- J. Compliance with RFP and Application requirements - 5 points.

**KEAHUOLU RFP  
Summary Comparison of Best and Final Proposals  
February 29, 2008**

<b>Applicant</b>	<b>Unidev Hawaii, LLC</b>	<b>Forest City Hawaii Residential, Inc.</b>
<b>Development Team (E.g.):</b>	Unidev Hawaii, LLC (Owner's Rep.) Citigroup Global Markets; MVE Pacific; Sam O. Hirota; Lincolne Scott; Isemoto Construction Company; DR Horton, Hawaiian Dredging (workforce builder); Brookfield (market homes); Hunt Development (commercial developer); Townscape, Inc. (Communication & Coord.)	Forest City Hawaii Residential, Inc.; Thomas H Yamamoto; Roger B. McKeague (Dev. Consultants); Riehm Owensby Planners Architects; Calthorpe Associates (Architect); Jim Lyon (Engineer); EM Rivera & sons, Inc. (Contractor); Forest City Residential Group, Inc. (Management Agent); Clark Realty (Broker)
<b>Proposed Name:</b>	Keahuolu-Kona Workforce Housing	Kamakana Villages at Keahuolu
<b>Types of Residential Units (Single-family, Multi-family; Elderly or Family Rental; For-Sale):</b>	120 units Market Single-family 339 units Afford. Single-family 651 units Afford. Townhomes 164 units Afford. Duplexes 412 units Multi-family Rentals 1,686 units Total	396 units Market Single-family 74 units Affordable Single-family lots 158 units Market Duplex 548 units Market Multi-family 1,030 units Affordable Multi-family 2,206 units Total
<b>Total Residential Units:</b>	1,686	2,206
<b>Total Affordable Units:</b>	1,566	1,104
<b>Total Market Units:</b>	120	1,102
<b>Total Gross Commercial Space (sq. ft.):</b>	197,000	120,000* (*Sq. footage may change based on market.)
<b>Delivery &amp; Timing of Affordable Units:</b>	Year 2013 282 Units Year 2014 522 Units Year 2015 522 Units Year 2016 360 Units Total 1,686 Units	Year 2011 95 Units Year 2012 30 Units Year 2013 79 Units Year 2014 70 Units Year 2015 284 Units Year 2016 84 Units Year 2017 84 Units Year 2018 84 Units Year 2019 34 Units Year 2020 236 Units Year 2021 24 Units Total 1,104 Units

**KEAHUOLU RFP**  
**Summary Comparison of Best and Final Proposals**  
**February 29, 2008**

<b>Applicant</b>	<b>Unidev Hawaii, LLC</b>	<b>Forest City Hawaii Residential, Inc.</b>
<b>Most Livable Community:</b>	<p>Follows RFP master plan--transit oriented development with park and higher densities toward transit center; land trust model--perpetual affordability of for-sale homes; Product and income mixes and neighborhood "theme-ing"; community gathering places, e.g., retail, civic, passive recreation venues; Energy star appliances (no LEED certification)</p>	<p>"New Town" of 6 neighborhoods centered around a town center and community park, w/ 5 minutes walking distance from majority of residences (follows RFP master plan but mixes single-family w/multi-family throughout); each neighborhood designed around smaller parks, linked with pedestrian and bike paths. Minor streets are "skinny streets." Townhomes and single-family homes to be "alley loaded." Create sense of place based on old communities and private roads. Promote social interaction w/pedestrian oriented streetscape and open lanais of homes facing streets. Mitigate speed of internal traffic w/smaller roads. Provide streetscape as a unifying amenity in the neighborhood. Design</p>
<b>Most Livable Community (cont'd.):</b>		<p>concepts will support the LEED program--e.g., solar water heating; energy star appliances, high-performance, low E window systems, and building insulation that exceeds code requirements. Private sewage treatment plant; dual water system so treated water can be used for irrigation throughout the project; integration of affordable and market units.</p>
<b>Average Density:</b>	9.7	14.5
<b>No. of Villages/Phases:</b>	3	6
<b>Maximum Building Height:</b>	3 stories	3 stories
<b>Range and Mix of Affordability:</b>	See Attached Breakdown	See Attached Breakdown.
<b>Affordable Unit Types:</b>	<p>72 Units SRO* (252 BR's)                      0 Studios ( sf)                      146 1-bedroom units ( sf)                      146 2-bedroom units ( sf)                      48 3-bedrooms+ units ( sf)</p>	<p>631 studio/1-bedroom units                      1,002 2-bedroom units                      440 3-bedroom units                      37 4-bedroom units                      96 SF lots</p>
<b>No. of Rental vs. For-Sale Units:</b>	<p>412 Rental Units (24.4%)                      1,228 For Sale Units                      1,686 Total Units</p>	<p>200 Rental Units (9%)                      2006 For-Sale Units                      2,206 Total Units</p>



**KEAHUOLU RFP  
Summary Comparison of Best and Final Proposals  
February 29, 2008**

<b>Applicant</b>	<b>Unidev Hawaii, LLC</b>	<b>Forest City Hawaii Residential, Inc.</b>
<b>No. of Family vs. Elderly Rental Units (Pref. for Family Rental Units)(Max. of 35% Rental Units out of Total Units):</b>	No Rental Units specifically set aside as Elderly rentals	No Rental Units specifically set aside as Elderly rentals
<b>No. of Rental Units w/3 Bedrooms or More (Max. of 20% of Rental Units):</b>	48 Units (11.7%)	20 Units (10%)
<b>State Resources:</b>	\$0	\$28 M in Off-Site Subsidies
<b>Interim Financing Sources:</b>	Community Facilities District (\$120 M); For Sale Revenue Bond (\$352 M); Tax Exempt Rental Bond (\$84.9 M)	Equity (20%); Private Lender (80% of cost); (Includes off-site infrastructure costs); \$28 M in Off-Site Subsidies
<b>Permanent Financing Sources:</b>	Community Facilities District (\$120 M); Contr. From Mkt. & Comml. (\$27.5 M); For Sale Revenue Bond (\$3.9 M); Individual Mortgages; Tax Exempt Rental Bond (\$84.9 M)	Individual Mortgages
<b>Total Price for Land:</b>	No Upset Price of \$1 million to HHFDC Unless Credit and Equity Market Conditions Improve Significantly	\$1 Million
<b>Total Estimated Off-Site Costs:</b>	\$41 Million	\$77 Million
<b>Total Development Cost:</b>	\$595,704,689	\$760,000,000
<b>Start Construction for First Building:</b>	January 2, 2012	June 2010
<b>End Construction of Last Building:</b>	June 30, 2016	October 2023
<b>Proposal Conditions:</b>	<p>*SRO = Single Room Occupancy;                      "Owner's Rep" model (HHFDC takes risks) enables most affordable units;                      Modified Land Trust Model—65-year ground lease from HHFDC to non-profit developer;                      No upset price of \$1M to HHFDC unless credit and real estate equity markets improve significantly;                      No budget for any park improvement;                      Assumes 50% contr. to midlevel road;                      School Fee of \$2.8 M budgeted vs. est. of \$7.8 M (for 1,840 units);                      Sect. 1 and Exh. A, B, C, D, 4 &amp; 13 are Confidential;</p>	<p>To proceed, dev. wants to talk w/HHFDC to "leverage our mutual strengths in order to maximize our mutual benefits."                      Wants to partner with HHFDC to transfer the payment of estimated \$77 M of offsite costs "off the front end of the project;" need \$28 M offsite subsidies; e.g., 20% IRR on dev's equity + profit sharing based on equity investment up to amt. of subsidy.</p>

**KEAHUOLU RFP  
Summary Comparison of Best and Final Proposals  
February 29, 2008**

<b><i>Applicant</i></b>	<b>Unidev Hawaii, LLC</b>	<b>Forest City Hawaii Residential, Inc.</b>
<b><i>Proposal Conditions (cont'd.):</i></b>	<b>if proposal is not accepted, proposals to be returned, except as req'd. by law.</b>	

**KEAHUOLU RFP**  
**Summary Comparison of Proposals - Target Market of Units**  
**February 29, 2008**

Target Market	Building Type	Estimated Price Range	Income Group	Unidev Hawaii, LLC (No. of Units)	Forest City Hawaii Residential, Inc. (No. of Units)
Rental	MF (?)	N/A	80% and Below		200
Rental	MF (?)	N/A	110% and Below	46	
Rental	MF (?)	N/A	115% and Below	146	
Rental	MF (?)	N/A	120% and Below	100	
Rental	MF (?)	N/A	135% and Below	48	
<b>Subtotal Rentals</b>					
				412	200
Affordable For Sale	MF	\$135,000 to \$224,800	80% and Below		166
Affordable For Sale	MF	\$158,300 to \$282,300	100% and Below		249
Affordable For Sale	MF	\$190,000 to \$314,800	120% and Below	82	249
Affordable For Sale	?	?	125% and Below	163	
Affordable For Sale	?	?	131% and Below	410	
Affordable For Sale	?	?	132% and Below	414	
Affordable For Sale	?	?	133% and Below	85	
Affordable For Sale	MF	\$221,700 to \$367,300	140% and Below		166
Affordable For Sale	Lots	\$95,000	100% and Below		74
<b>Total Affordable</b>					
				1,568	1,104
Market For Sale	MF	\$425,000 to \$460,000	180% and Below		219
Market For Sale	MF	\$450,000 to \$475,000	200% and Below		219
Market For Sale	MF	\$475,000 to \$500,000	220% and Below		110
Market For Sale	Duplex	\$500,000 to \$525,000	200% and Below		79
Market For Sale	Duplex	\$525,000 to \$550,000	220% and Below		78
Market For Sale	SF	\$550,000 to \$575,000	180% and Below		75
Market For Sale	SF	\$575,000 to \$600,000	200% and Below		112
Market For Sale	SF	\$600,000 to \$625,000	220% and Below		112
Market For Sale	SF	\$625,000 to \$650,000	240% and Below		75
Market For Sale	Lots	\$225,000 to \$275,000	200% and Below		22
Market For Sale	?	?	?	120	
<b>Total Market</b>					
				120	1,102
<b>Total Units</b>					
				1,688	2,206

**CONFIDENTIAL**  
 (Until Approval of Selection)

**Exhibit "C-1"**

Page 1 of 1

Created: February 28, 2008  
 c:\na\c080808\c1 - summary of target market

**Forest City Hawaii Residential, Inc.  
Directors & Officers**

Directors: Ronald A. Ratner-Address listed below

Officers:

<u>Name:</u>	<u>Title:</u>	<u>Address:</u>
Ronald A. Ratner	President	50 Public Square, Suite 1170 Cleveland, Ohio 44113
Deborah Ratner Salzberg	Executive Vice President	1615 L Street NW, Suite 400 Washington, DC 20036
Edward Pelavin	Executive Vice President	50 Public Square, Suite 1170 Cleveland, Ohio 44113
James J. Prohaska	Executive Vice President, Assistant Secretary	50 Public Square, Suite 1170 Cleveland, Ohio 44113
Michael J. Defferding	Executive Vice President	1615 L Street NW, Suite 400 Washington, DC 20036
Thomas W. Henneberry	Executive Vice President, Secretary	1615 L Street NW, Suite 400 Washington, DC 20036
Jon C. Wallenstrom	Sr. Vice President	5173 Nimitz Road Honolulu, HI 96819
Mark Gerteis	Vice President	50 Public Square, Suite 1170 Cleveland, Ohio 44113
Stacey M. Katakura	Vice President	2969 Mapunapuna Place Suite 210 Honolulu, HI 96819
James C. Ramires	Vice President	5173 Nimitz Road Honolulu, HI 96819
Thomas G. Smith	Treasurer	50 Public Square, Suite 1100 Cleveland, Ohio 44113

**EXHIBIT "D"**

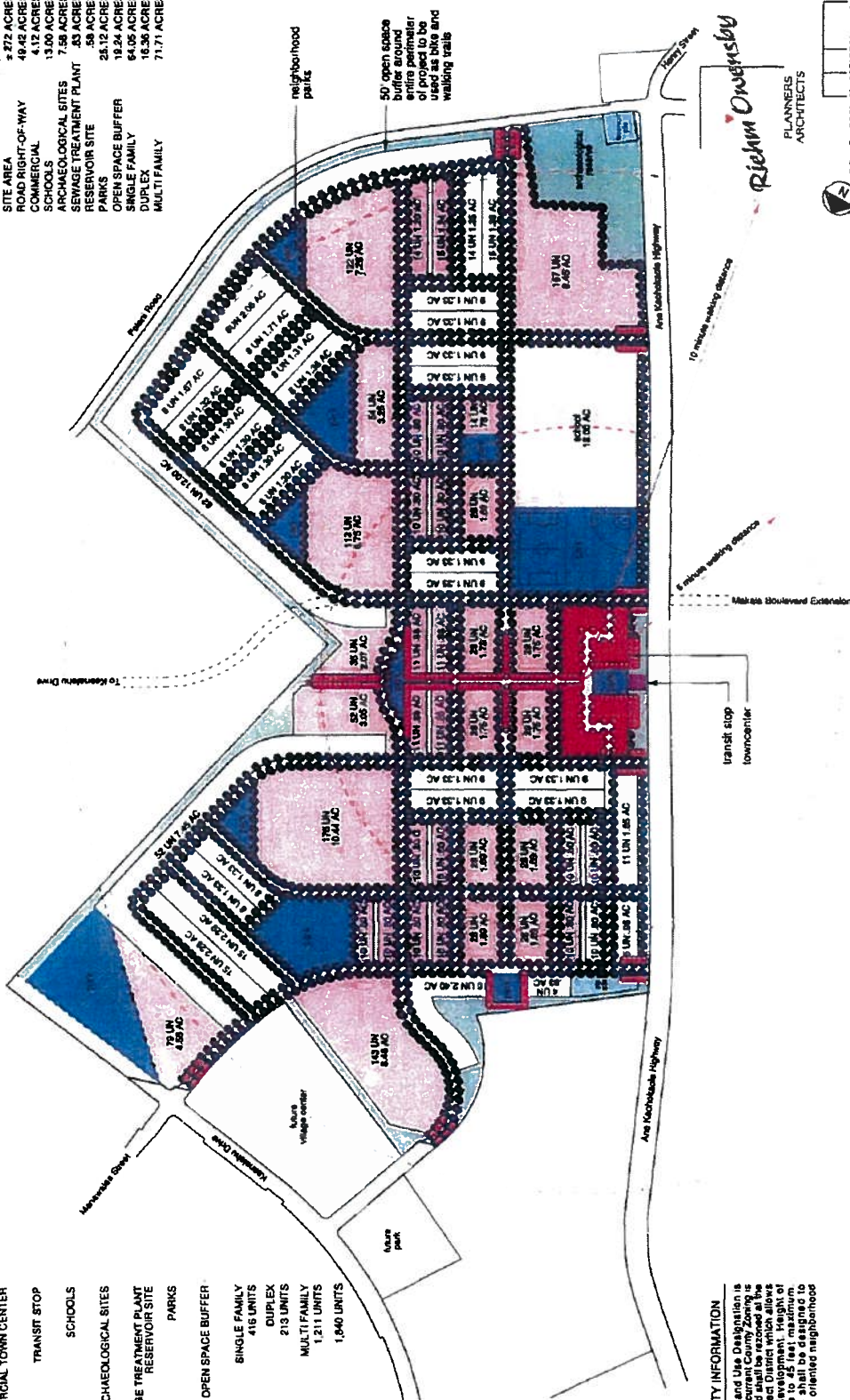
**PROJECT INFORMATION**

PROJECT TMK	TMK (S) 74-006:056
SITE AREA	± 872 ACRES
ROAD RIGHT-OF-WAY	49.42 ACRES
COMMERCIAL	4.12 ACRES
SCHOOLS	13.00 ACRES
ARCHAEOLOGICAL SITES	7.50 ACRES
SEWAGE TREATMENT PLANT	33 ACRES
RESERVOIR SITE	58 ACRES
PARKS	28.12 ACRES
OPEN SPACE BUFFER	18.24 ACRES
SINGLE FAMILY	94.08 ACRES
DUPLEX	11.41 ACRES
MULTIFAMILY	71.71 ACRES

**MASTER PLAN**

	COMMERCIAL TOWN CENTER
	TRANSIT STOP
	SCHOOLS
	ARCHAEOLOGICAL SITES
	SEWAGE TREATMENT PLANT
	RESERVOIR SITE
	PARKS
	OPEN SPACE BUFFER
	SINGLE FAMILY
	416 UNITS
	DUPLEX
	213 UNITS
	MULTI FAMILY
	1,211 UNITS
	1,840 UNITS

TOTAL UNITS



**STATE/COUNTY INFORMATION**

The current State Land Use Designation is Agricultural and the current County Zoning is Agricultural. The project is located within the Aiea Urban District which allows for a mixed use development. Height of structures shall be to 45 feet maximum. Building setbacks shall be assigned to the petitioner orienting neighborhood character.

**Keahuolu ... An Affordable Master Planned Community**

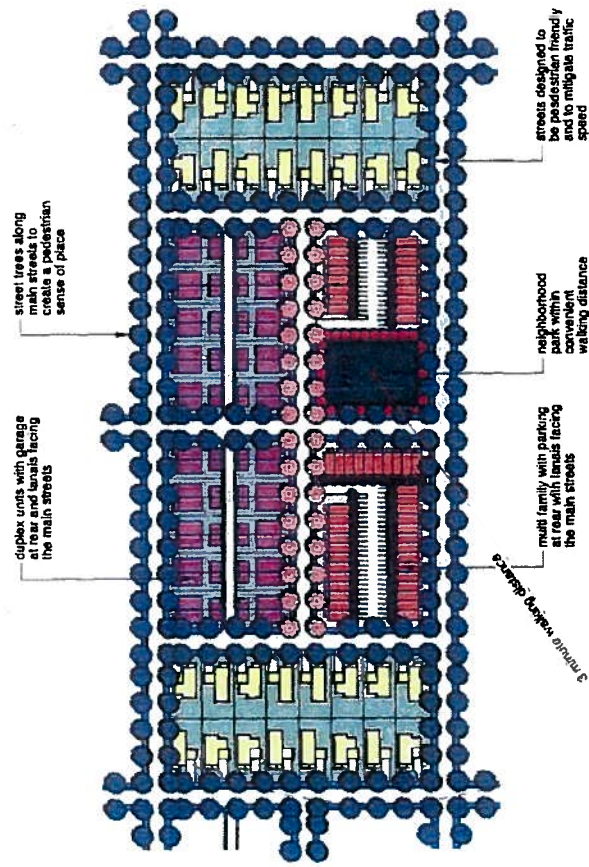
PLANNERS  
ARCHITECTS

*Riehm Ovensky*

**PROJECT INFORMATION**

SITE AREA	± 17 ACRES
SINGLE FAMILY	16 UNITS
DUPLEX	40 UNITS
MULTI FAMILY	70 UNITS
TOTAL UNITS	126 UNITS

**TYPICAL NEIGHBORHOOD CONCEPT**



basic concept is to provide a wide range of housing product within one neighborhood with convenient access to parks, towncenter, schools and transit stop

**Riehm Owensby**  
 PLANNERS ARCHITECTS

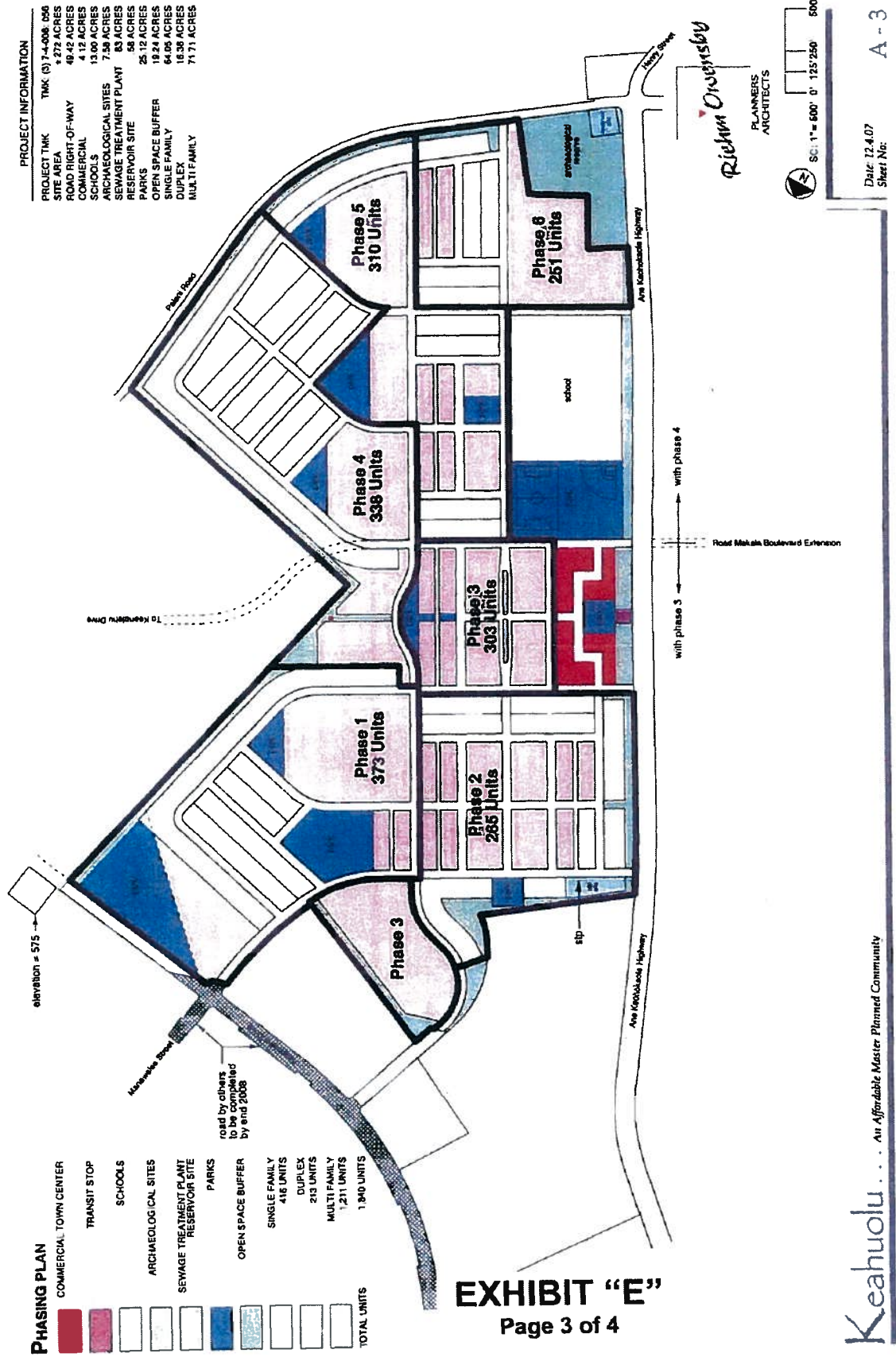
Scale: 1" = 200' 0" 50' 100' 200'

Date: 12.4.07  
 Sheet No.

A - 2

**PROJECT INFORMATION**

PROJECT TMK	TMK (3) 7-4-008: 056
SITE AREA	± 272 ACRES
ROAD RIGHT-OF-WAY	49.42 ACRES
COMMERCIAL	4.12 ACRES
SCHOOLS	13.00 ACRES
ARCHAEOLOGICAL SITES	7.58 ACRES
SEWAGE TREATMENT PLANT	83 ACRES
RESERVOIR SITE	26 ACRES
OPEN SPACE BUFFER	26.74 ACRES
SINGLE FAMILY	19,24 ACRES
DUPLEX	64,04 ACRES
MULTIFAMILY	18,38 ACRES
	71,71 ACRES



**PHASING PLAN**

- COMMERCIAL TOWN CENTER
- TRANSIT STOP
- SCHOOLS
- ARCHAEOLOGICAL SITES
- SEWAGE TREATMENT PLANT
- RESERVOIR SITE
- PARKS
- OPEN SPACE BUFFER
- SINGLE FAMILY 418 UNITS
- DUPLEX 215 UNITS
- MULTIFAMILY 1,211 UNITS
- TOTAL UNITS 1,940 UNITS

**EXHIBIT "E"**  
Page 3 of 4

*Richim Orskovsky*  
PLANNERS  
ARCHITECTS

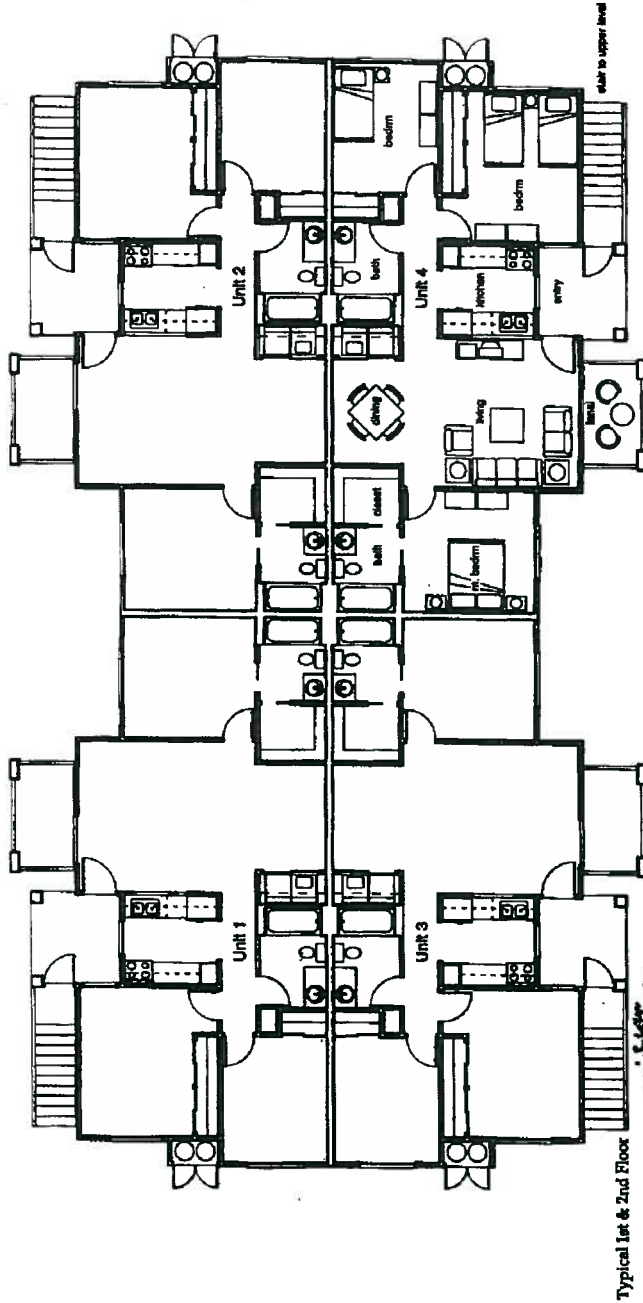
Scale: 1" = 600' 0" 125'/250' 500'

Date: 12.4.07  
Sheet No:

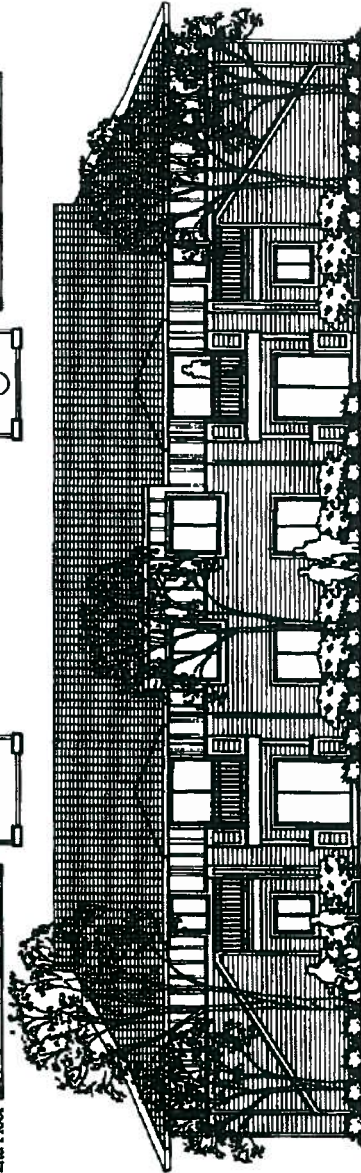
A - 3

PROJECT INFORMATION  
COUNTY BUILDING CODE UBC 1991  
TYPE OF CONSTRUCTION TYPE 5N

MULTI FAMILY RESIDENCE MODEL "H" THREE BEDROOM TWO BATH



Typical 1st & 2nd Floor



Street Elevation

*Richard Owensby*  
PLANNERS  
ARCHITECTS

Scale: 1" = 10'

Date: 12.4.07  
Sheet No:

A - 11



2/29/08

**KAMAKANA VILLAGES AT KEAHUOLU**  
**ESTIMATED LAND USE INVENTORY**

Single-Family Residential	64.05 Acres
Multi-Family Residential	88.07 Acres
Parks	25.12 Acres
Elementary School	13.00 Acres
Commercial/Rental	4.12 Acres
Roads	49.42 Acres
Other:	
Archaeological/Sewer Treatment	7.58 Acres
Reservoir Site	0.58 Acres
Open Space Buffer	<u>19.24 Acres</u>
	272 Acres

## COMPARISON OF OFF-SITE COSTS KEAHUOLU RFP

	Unidev's		Forest		Per EIS/ BCH Est.	Comments to EIS/BCH Est.
	Proposal	City's Proposal	City's Proposal	Proposal		
Mid-Level Road	4,239,500	10,200,000	6,816,500	For half of est. cost.		
Water Improvements--						
Waterlines	1,958,000	1,958,000	1,958,000			
Well #3	3,796,000	8,865,000	7,175,000			
Well #4	4,985,000	9,645,000	11,296,000			
595' Elev. Reservoir	3,432,000	3,682,000	8,385,000			
Offsite Sewerline	11,250,000	15,000,000	6,663,000	Plus expansion of STP.		
School Impact Fee	2,596,500	10,500,000	7,812,000	For 1,840 units per Adden. No. 3		
Offsite Traffic Improvements Per Draft Traffic Study	1,266,000	9,700,000	No Est.			
Offsite Electrical, Telephone, Cable, Etc.	7,250,000	7,400,000	7,250,000			
<b>Total</b>	<b>40,773,000</b>	<b>76,950,000</b>	<b>57,355,500</b>			

**EXHIBIT "F"**



745 Seventh Avenue  
New York, NY 10019  
United States

October 11, 2010

Jon C. Wallenstrom  
President  
Forest City Hawaii  
5173 Nimitz Road  
Honolulu, Hawaii 96818

Dear Mr. Wallenstrom:

It is our pleasure to provide our insight into the opportunities that are afforded to jurisdictions when a public-private venture is structured appropriately with significant approvals of meaningful durations.

Barclays Capital, as combined with Barclays Bank PLC is one of the world's largest financial institutions, serving individual consumers, small and middle market businesses and large corporations with a full range of banking, investing, asset management and other financial and risk management products and services. Barclays Bank PLC (Barclays Bank) is a publicly traded, global financial services provider with an extensive international presence in Europe, the United States, Africa and Asia. Founded in 1690, Barclays Bank has over 300 years of history and expertise in banking. Today, it operates in over 50 countries and employs 155,000 people. Barclays Bank's shares are traded on the London Stock Exchange and its American Depository Receipts (ADRs) are traded on the NYSE with the ticker of "BCS".

The relationship between the size and duration of a project and its ability to achieve advantageous financing is important. Both Forest City and Barclays Bank are two of the more established companies in our associated industries, and by pooling our significant resources we can achieve great good. Responsible developers such as Forest City and their associated financial partners know that markets move and change. When doing a large public-private venture, there are financial tools that can build roads, schools, affordable housing, or other improvements but the financial tools are strongest when the financing period is long and the size and diversity of the project is great. Financial tools are based on the simple premise that money needs to be paid back. If that money is being paid back over a number of years by a project with a diverse mix of products, there is a much higher likelihood that it will be returned. This in turn leads to more jobs, more interesting projects, and more public improvements.

Much of the upheaval in today's market is a function of short-term thinking that was manifest in short-term borrowing. By imposing limited approvals and shortened durations the State of Hawaii will not only limit the scope of projects that will benefit the public but encourage risk.

Sincerely,

A handwritten signature in black ink, appearing to read "Christopher P. Moriarty".

Christopher Moriarty,  
Director