Hayward Route 238 Parcel Group 6, the old quarry

CITY SUPPORT FOR COLLEGE HEIGHTS CONCEPT
OVERVIEW
CONDITIONS, SITE PLAN, FLOOR PLANS
PARKS, TRAILS AND OPEN SPACE
AFFORDABILITY, SUSTAINABILITY, MOBILITY
HEALTH AND SAFETY, DESIGN, COMMUNITY
THE MARKET, RETURN, RISK REDUCTION
City of Hayward Support for College Heights

The Hayward Area Planning Association (HAPA), an advocacy group, has been developing a walking-oriented sustainable development called “College Heights” for this site since June 2001. The proposal includes more housing, about 732 units, based on walkways and less parking. Its major themes: affordability, sustainability, mobility, health and safety, design, and community. College Heights would compete well for funds from the Housing and Sustainable Communities Program of the Strategic Growth Council. The City of Hayward approved the concepts of Bayview Village, now College Heights, in its Program Environmental Impact Report, Sustainable Mixed Use land use designation, and zoning.

HAYWARD CITY COUNCIL

RESOLUTION NO. 14-057

Introduced by Council Member Salinas

RESOLUTION EXPRESSING SUPPORT FOR THE BAYVIEW QUARRY VILLAGE CONCEPT AS DEFINED BY DR. SHERMAN LEWIS AND FOR THE USE OF STATE CAP-AND-TRADE FUNDS FOR SUSTAINABLE AND TRANSIT-ORIENTED PROJECTS THROUGHOUT CALIFORNIA, INCLUDING BAYVIEW QUARRY VILLAGE

WHEREAS, the City of Hayward has identified being “GREEN” as one of its three major priorities; and

WHEREAS, Dr. Sherman Lewis has developed a concept, Bayview Quarry Village, that, when and if developed, would be a transit village with minimum vehicle use and low greenhouse gas emissions and would support the goals of the City’s Climate Action Plan; and

WHEREAS, the Governor of the State of California and the California State Legislature have developed and implemented a Cap-and-Trade program within the State to fund, in part, programs related to sustainable communities, clean transportation, energy efficiency, natural resources, and waste diversion; and

WHEREAS, Dr. Lewis’ concept fits many of these Cap-and-Trade program categories; and

WHEREAS, Bayview Quarry Village will not be able to proceed without substantial funding, both public and private.

In May 2014, the City Council passed a resolution in support of the College Heights concepts.

The proposal is consistent with the Master Plan for Parcel Group 6. There are many ways to implement the concepts, illustrated by the specific ideas presented here. College Heights could be proposed as a project, or its ideas used in related proposals.

More information is available from Sherman Lewis, President of HAPA, at Sherman@csuhayward.us.

Report and PowerPoint at https://collegehts.org/
College Heights will be a large development in an abandoned quarry near California State University East Bay (CSUEB) in Hayward CA. It is designed to meet six complementary goals:

- **Affordability**
- **Sustainability**: building, energy, landscaping, water
- **Mobility**: Alternative modes, reduced auto dependency
- **Health and safety**: Clean, safe, secure; more walking, recreation
- **Design**: High quality building design and site layout
- **Community**: balance of privacy and neighborliness. The site is accessible to walkers from the dead ends of Overlook Ave. and Palisade St. off Carlos Bee Blvd.

The project plans to have a larger number of larger units than most condominium projects in order to appeal to families and those with higher incomes, or simply desiring more space.

College Heights is designed to be a community free from vehicular traffic, with homes on walkways providing a sense of neighborhood and shared informal space.

### Project Development

Of course, the developer and the City will determine the actual project. HAPA’s involvement will be determined by the developer. I would like to work collaboratively, without compensation, on whatever version of College Heights moves forward. My wife and I want to live there. CEQA review consistent with the Bypass General Plan EIR should be easy environmentally. As a former quarry largely devoid of vegetation, the property appears to be rock, free of protected plant and animal species. The design will honor all fire rules and ADA universal design.

### Major policy framework

American suburbia is very inefficient at consumption. The cost of housing, energy, and transportation is high, as are the environmental and social costs. In general, it seems the concept of walkable neighborhood systems is not understood; the cultural dominance of a system of dispersed, auto-dependent, high-cost suburbs limits thinking about large, complex, alternative systems. Even new “transit-oriented development” pays homage to the car by subsidizing large amounts of underpriced, bundled, and expensive parking, that does not pay for itself.

College Heights replaces the labor-intensive, high resource-consuming, extensive land use system of suburbia with one that is inherently more efficient economically, environmentally, and socially.

College Heights takes “smart growth” to a higher level of compact development, mixed use, and alternative travel modes in a way convenient for work, home and play. It pulls together proven but usually isolated ideas into a whole system. Its economies of scale achieve a high quality of life with fewer resources, lower costs, and a different system of pricing, land use, housing, energy, and transportation.

College Heights has the look and feel of a traditional walkable neighborhood, based, in part, on the ability to increase purchasing power and transit ridership with short walk distances through high density. A cost-effective Village Bus and other mobility features equal or surpass the mobility of suburbia.

A successful development would demonstrate the viability of the Walkable Neighborhood System. College Heights residents will have significantly lower living costs, use dramatically less fossil energy, and reduce their emissions of greenhouse gases and pollution. College Heights reduces economic dependency on private autos, oil companies, foreign oil suppliers, and the related military costs and moral hazards.

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### Location and Village Bus Route

![Bus Route Map](image)

### Existing Conditions

The unique geographical characteristics of the property provides strong geographical separation from adjacent land uses. The limited access and geographic buffering will create a unique identity for the project.

On the east side is a powerline corridor 200 feet wide and the existing City View Apartments. On the north side is Crevice Creek in a steep wooded ravine. The west slopes down steeply into single family neighborhoods. The south side narrows down almost to Carlos Bee Blvd. The developable area is surrounded by 10.6 acres of open space consisting of a steep rock face on the east, the long arc of the creek on the north, and a small, abandoned quarry on the west with a cliff dropping down to Redstone Place.

18.6 acres are developable.

Hard rock of gabbro and Knoxville Formation and need for large cut and fill make grading expensive.

The Knoll elevation is good for views. Overburden on the knoll and south side can be used to fill the pit to two percent grade from high across the north side at the top of the Crevice Creek down to Palisade Street, with cut equal to fill. From Palisade Street south is five percent grade.

Straight streets and rectangular lots in existing neighborhoods bend in certain places, creating odd bits of unbuildable off-square areas for landscaping.

Sources, Existing condition graphic, next column:
Site Plan

The site plan currently proposes 732 units, with a mix of unit types: studio and one-bedroom, two-bedroom one bath and two bedroom two bath flats in sixplexes; three bedroom flats and townhouses with three, four, and five bedrooms. Unit sizes will vary from 512 to 2,112 square feet and most of the buildings will be three-story, wood-framed structures. The current plan calls for 24 studios, 181 one-bedrooms, 194 two-bedrooms, 190 three-bedrooms, 108 four-bedrooms, and 35 five bedrooms. Actual types will respond to sales.

College Heights Village Site Plan:
Parks, Trails, Open Space

The College Heights planning used research by William Holly White (https://www.pps.org/) on how to make small public spaces popular. College Heights uses dispersed, intimate, miniparks close to every front door. Landscaping improves sightlines with greenery. The current College Heights plan has four parks totaling just over ¼ acre each. The HOA will also maintain two plazas on the main walkway and a few small flower gardens in other spots and in the Village Square.

The parks are close to many front doors for easy outings with children, enjoying the weather, and BBQs.

The powerline corridor will have a community orchard and garden and could accommodate some type of managed compost vegetative waste program within the project.

The walkways will accommodate walking, bicycles and similar, wheelchairs, grocery carts, electric freight cart, public safety and emergency vehicles, moving vans, garbage trucks, and recycling trucks—not cars. These walkways will use a green paving system, grasscrete, to maintain the aesthetic of the Village. The Village Center will be a short walk away from the units.

College Heights has been carefully evaluated by civil engineers at Lea & Braze Engineering, Inc. and found to be feasible for wet and dry utilities in the right-of-way, complying with City of Hayward right-of-way street criteria such as maximum slope, minimum width, and minimum turning radius for fire protection; balancing cut and fill; providing drainage and ADA-approved slopes; phasing grading to delay cost until needed for building; and meeting State Water Board regulations for storm water treatment with an underground storm water detention pipe-network with metered release into the creek and storm drains.

The Village Center

The busway: Palisade St. across the powerline corridor to Carlos Bee Blvd. The busway will have elevated sidewalk bus stops for fast boarding. The stops will be sheltered.

Community Center:

- Ground floor: lobby, mailboxes, service counter with mailing services and mail too big for mailboxes, ATM, security video surveillance, small laundry, room for future childcare, bicycle shop, reading room with coffee, books and a wood-burning EPA-rated stove.; van and freight cart parking
- Second floor: café and flexible multi-purpose room with a small kitchen and small locker rooms used for a fitness center, meetings, banquets, performance, parties, clubs, movies, and events. Has view of Bay Area and a balcony
- Top floor: two Homeowner Association (HOA) manager apartments, HOA office. Onsite management supports high quality attention, security, and services

- Neighborhood Café: The neighborhood café on the second floor has sweeping views of the Bay, Mount Tam, downtown San Francisco, and down the peninsula to San Jose. We envision a combination of bakery, pastry shop, café, restaurant, take-out, ice cream parlor and coffee shop
- Village Square: A small park with large native trees (redwood, live oak, laurel, sycamore, buckeye), public art, and benches around a fountain is at the heart of the center, a place to meet friends and visitors or relax in warm weather
- Palisade St.: Parking reserved for public cars (car share/rental, taxi, e-hail (Lyft, Uber)
- Bicycle parking
- The building on the Village Square has the Corner Store and additional space convertible to retail uses as demand allows
The Foothill Trail

The 238 Foothill Trail, ultimately five miles long would run from I-580 in Castro Valley to Industrial Blvd. in south Hayward and connect to other long trails.

College Heights would plan, construct, and manage the trail through the site and would dedicate a conservation easement for public use during the daytime.

College Heights currently plans for the Foothill Trail along walkable grades, avoiding up and down and round-about alignments on steep side slopes. The trail has transit access using the busway and public parking.

Crevice Creek is in a steep ravine where a wide trail would be environmentally damaging and would distance trail users from the woods. College Heights would have a narrow, low-cost footpath similar to some in Hayward Area Recreation District (HARD) and East Bay Parks, which are conducive to an intimate enjoyment of nature.

The regional trail would be about 2,622 feet long. It would be closed at night for security. It would be maintained by Alameda County GAHD and monitored on site by the HOA managers. Trail users would be encouraged to stop at the café and learn about College Heights.

College Heights also includes a trail up the rock face to a picnic site overlooking a three-bridge view of the Bay. The Bay View trail continues north and loops into a park on site.
Floor plans

College Heights is intended for a mix of incomes, kinds of families, and ages. College Heights includes more large units than usual. The current plan calls for 24 studios, 181 one-bedroom apartments, 194 two-bedroom condominiums, 190 three-bedroom townhouses, 108 four-bedroom townhouses, and 35 five-bedroom townhouses. Actual sales will reveal which types are built. Some units will be available to low-income seniors and families. See Affordability for four-bedroom townhouse floor plan.

The three-bedroom ground floor has a large flex space for a bedroom, home office or secondary unit. Owners have flexibility.

Buyers will have some flexibility in the floorplan within limits set by the front door, stairway, plumbing core and exterior walls. Walls could be adjusted for walk-in closets, bathrooms, a separate toilet room, bigger shower stalls, kitchen island, closet-bath combo, a wall for a video monitor/TV screen, and nooks for a computer or dog bed. The Floor Plan Options will include a few specific choices planned in advance.
Affordability

Three bedroom Condo
1,360 square feet; 2 bathrooms
2023 Est. $780,000

Q: Where do I park my car?
A: There is no parking next to the unit, no parking on the walkways, and no parking in the adjacent neighborhood. There is leased parking, one space per unit, in a podium under the walking area.

Q: But if I can’t park my car next to my house, how will I get around?
A: Go downstairs into the podium for your car or use the many mobility options provided (see discussion below.)

The project is designed for people that do not need routine use of a car.

Q: What If I can’t afford a more expensive home?
A: You should think about a new way to get around. And it gets better. You may qualify for a transportation-efficient mortgage because the money you save on not owning or operating a car can apply to the amount you can afford for the mortgage. You may qualify for an energy-efficient mortgage because you pay less for energy.

Q: Energy? How is that relevant?

Living costs, which include housing, energy, and transportation are much lower. College Heights units are “tight”—highly insulated with very low heating and cooling costs. They use photovoltaic thermal energy system, heat pumps, induction stoves, and other technology to bring utility bills below PG&E. With lower mortgage, transportation, and energy costs, you save a lot.

Q with an A: No thanks—I have to commute an hour by car on a congested freeway to get to work.

Q with an A: Yes! I’m in a specific market where this works for me.
Living Costs

Living costs less in the walkway system than in suburbia or conventional smart growth, with comparable mobility. College Heights will provide 732 high-quality homes at prices mostly affordable to moderate incomes for the East Bay area. HAPA estimates show that only the five-bedroom townhouse is above the HUD affordability cut-off.

The project achieves affordability with more efficient land use, low-cost housing design, and lower home maintenance costs. HOA services eliminate many of the direct maintenance costs of home owning. HOA services save time and alleviate homeowners of work they may not want, or may not be able, to do.

- Parking is optional and spaces are leased, reducing the cost of housing. Parking pays its own way, separate from housing
- Less land is used for streets and parking, allowing more land to be used for housing and reducing the housing cost
- Energy-efficient integral roofs support zero net on the grid
- Efficient foundations serve several row houses and sixplex condominium buildings.
- Efficient three-story construction, and advanced energy and water savings built in, saving on utility costs
- Phasing of site development reduces carrying costs, getting sale income closer to outlays
- Added costs of sustainable mobility are more than offset by savings
- The plan supports living without owning a car, saving more money

College Heights will use a housing design that reduces cost while maintaining quality. Using only rectangular “four-square” foundations and efficient floor plans lowers costs. Foundations could use post-tensioned slabs using reusable steel forms and factory-assembled rebar modules. The modular sizing of foundations allows reuse of the forms and many uses of the same rebar format.

Computer-aided Design (CAD) can be used to minimize waste of lumber and other building materials, and to increase efficiencies in construction. Repeated wall panels with the same design may have economies of scale that make it efficient to use modular construction in a factory. Modules are transported and assembled onto foundations and bolted into place. Modular floor plans with common dimensions make it easy to shift among unit types to respond to market demand.

The design saves an estimated 20 percent on housing construction costs relative to conventional building. Some of the cost of housing goes to HOA assets, for a net price reduction of about 15 percent for the same interior space and floor plans as a single-family house. The comparison is complicated because College Heights provides more than a typical suburban house. Some of the investment is needed for mobility, like the Bus, and some is needed for extra amenities, like the Village Center.
Sustainability

College Heights is the most sustainable development ever proposed for California to date and should achieve a platinum rating from LEED (Leadership in Energy and Environmental Design) for neighborhoods. The project uses photovoltaic and thermal energy, uses native drought-resistant landscaping, retains stormwater on site, uses water efficient fixtures, minimizes solid waste, has highly energy conserving construction, and uses energy-efficient appliances and electronics. The alternative mobility features described below dramatically reduce air pollution and greenhouse gases.

The sustainability of College Heights is a result of the combination of the features discussed in other sections: The housing uses sustainable materials and minimizes construction waste. The energy system is sustainable. Green mobility reduces fossil fuel use and reduces pollution.

Water

This section discusses water, energy, and biodiversity. College Heights will have low water consumption and low pollution. There will be no private over-watering of the yard, hosing off sidewalks, or washing cars.

Walkways will be permeable grasscrete for ground storage of water. Rain barrels will retain rain from roofs for irrigation. Walkway permeability and unit density significantly reduce the impacts of pavement, reducing storm-water runoff and heat-island effect.

The storm water system will meet “C.3” requirements for on-site retention. Storm water will be stored and filtered mechanically in two-foot diameter retention pipes running underground on walkways and courtyards.

Hayward enjoys pristine Hetch Hetchy potable water, with service already on the site. Water use will be conserved through EPA WaterSense certified fixtures: dual flush toilets using 1.6 gallons per big flush, showerheads restricted to two gallons per minute, and washing machines using 14 gallons per load.

The plan will have greywater systems, such as going from sink to toilet tank, and from washing machines to landscaping. No potable water will be used for irrigation. Sewer flows reduced by green water policies may fit within the capacity on Palisade Street.
Energy

Solar energy achieves “net zero” - no net electricity off the grid over the course of a year, with electricity use in winter balanced by generation in summer. Solar energy provides all domestic hot water, air conditioning, air cleaning, air renewal, and electricity for other household use. The energy system is sold separately from housing, reducing housing cost. It is paid for by direct purchase or lease and over the lifetime, costs less than the usual PG&E.

Passive energy is built into the building using three story row housing, wider walls for more insulation, building shades, energy conserving doors and windows, building shades, and airtight buildings reaching R-26 for walls and R-50 for ceiling, exceeding California regulations.

The active energy system uses PV thermal modules, a central power plant, heat pumps, borehole central thermal storage, a small hot water tank in the units, hydronic fan coil room air conditioners, and hydronic towel drying racks, all connected by a 4 pipe distribution system. As hot water is used over the winter, it cools. Cool water in summer goes to the thermal backside of the module, cools it off, and gets hot. The cooler pane is much more efficient for generating electricity, which runs the heat exchangers to recharge the thermal storage. Cool water also cools the units. Small water tanks just boost hot water as needed, which comes from central storage.

Electrical energy is supplied by bifacial modules with PV on both sides, the backside uses bounce light. Large scale installation reduces the price to about $1.89 per watt, well below the usual $2.97, $2.20 with tax incentives. The units have LED lighting with occupancy sensors and induction cooktops, which are faster, safer using less energy use with less pollution than natural gas or electrical resistance.

Biodiversity

The parks and open space are sustainable. The site plan envisions eleven acres of surrounding natural open space and steep rock face, two acres of parks, the 238 Foothill Trail, a trail up to a picnic area overlooking the San Francisco Bay, and even two small plazas, a tot lot, and a bocce ball court.

Five small parks and other landscaped areas will have drought-tolerant native plants and be irrigated with a combination of stored storm water, filtered rainwater, greywater, and seasonal ponds. The parks will have fire pits, grills and sheltered picnic tables.

The College Heights project will benefit the environment by replacing sparse vegetation and rock of the quarry with native plants, enriching habitat and bird life. Existing historic habitat, the wooded slopes in the Crevice Creek area, will be protected open space using a Geological Hazards Abatement District.

The project will conserve land relative to suburbia. The density of College Heights, about 48 units per net acre, is twelve times denser than suburbia at about 4 units per acre. College Heights uses about eight percent of the area used by a typical suburban area. The figures for other kinds of density measurement—units per gross acre, persons per net acre, and persons per gross acre—have similar ratios. College Heights uses far less land than suburbia, saving agricultural and natural land.

Solid waste in College Heights seems likely to be similar to other neighborhoods. The project will make segregation and recycling of waste materials easy. The HOA will keep litter picked up.
Mobility

College Heights uses numerous policies to deal with the private automobile.

College Heights provides ample mobility without requiring a private car parked next to the dwelling. College Heights reduces the need for auto trips. The site itself will have destinations: a café with a view of the bay, recreation (fitness center, regional trail), and community activities in the Village Center.

Walking, cycling, shopping carts

In College Heights, proximity, density, and design make walking a major form of transportation. Walking increases when supported by design, the critical features of which are density, safety, aesthetics, direct routes which support short walking distances. College Heights tries to balance the need to get people to walk more with their reluctance to do so.

Village Bus

Instead of buying a house with parking, people buy a house and a small bus system, the Village Bus. The unit price includes a prorated capital cost, and the HOA dues cover operating costs. The HOA owns and manages the Bus with a contract operator. Because the cost of the Bus is shared by everyone through home purchase and HOA fees, it can provide service at a low cost.

Fast: The Village Bus will provide speedy access to stores, restaurants, and other businesses on a fixed direct route along Mission Blvd. and in downtown Hayward. Two minutes to campus; six minutes to downtown. Two small, 28-foot buses maneuverable in traffic; electric motor torque for fast hill climbing; signal preemption; right lane queue jumping, fast no-step boarding; no fare collection; proof of purchase enforcement; direct route; drop off at BART entrance.

Frequent: every ten minutes most of day; more frequent with campus cooperation.

Free: residents have eco-pass; system is paid for in purchase of units and HOA dues.

Sustainable: electric bus uses regenerative braking, has low emissions, low fuel costs, modest maintenance costs.

Village Van, electrocart, deliveries

The HOA would own and manage a Village Van for several purposes like shopping, outings, and sporting and cultural events. The Village Van will be prioritized for taking kids to school and for after school activities. The local schools are Stonebrae Elementary School, Bret Harte Middle School, and Hayward High School.

The electrocart will be used by HOA managers for some residential deliveries and maintenance of College Heights Village common assets.

Public Cars

Public cars are car share/rental, taxi, and e-hail, which are supported on site. The HOA will have arrangements with agencies for easy pick-ups and rentals. Palisade St. would have reserved spaces on the street for about 10 car share/rentals and drop-off/pickup for private cars.
Public Car Vouchers

Vouchers will support local trips for health care and for rides home from BART when the bus is not operating. Vouchers are financed by HOA dues and parking revenues.

On-site Parking

Parking for the 732 units will be provided by 732 spaces in a podium under the walkable area, accessed by stairways on the walkways. The podium provides accessible parking without affecting the walking area and reduces the amount of fill needed for construction. Parking spaces are leased at the economic rate, which is equal to the cost of providing them. Private cars are not allowed on the walkways, only public safety, sanitation, and moving vans. There would be some paid public parking south of Palisade, out of the walking area.

Off-site Parking

An agreement would have to be made, but there could be off-site parking at the back of a used car lot on Mission Blvd. near College Heights. The parking charge would be lower than on-site. This area is ideal for weekend and vacation use of a car.

Deparking Incentives

As demand for parking increases, some combination of increased parking and deparking incentives may be needed. Deparking incentives consist of the increasing cost at auctions of spaces and of a payment to a lease holder to give up the space for construction. The increasing value of lots provides funds to buy out a lease as a final nudge to live more sustainably and economically.

Longer Trips

Single family residents taking longer trips need to have the yard taken care of while gone and to provide for security, and they may need to pay for parking at an airport. In College Heights, HOA services take care of these problems, making it easy to go on trips.

Residents in College Heights will have about the same travel time to Oakland Airport as people in the surrounding suburbia. They could take a taxi or e-hail all the way or take the Village Bus to the Hayward BART station and BART shuttle from the Coliseum BART station to the airport. BART goes directly into the San Francisco International and Oakland Airports. Similarly, they could reach the Hayward Amtrak station and the major Amtrak station in Oakland’s Jack London Square using the same modes.

Walkways

College Heights Village uses walkways to reach condominiums and townhouses, with limited parking on an extension of Overlook Ave. The design serves specific markets that do not need routine use of a personal car parked close to their door. For these markets, College Heights provides ample mobility using alternative modes, less auto dependency, and more use of other modes than other designs. Increased walking and common facilities support a sense of community.

The median travel time from a front door to coffee and breakfast in the café is 2 minutes 30 seconds.

Use of the walkways is limited to walking, bicycles, tricycles, shopping carts, public safety vehicles, wheelchairs, garbage trucks, and moving vans. Most deliveries are managed using mailboxes and drop boxes at each residence. Entries of units have space for bicycles and shopping carts.

Understanding mobility: Travel time budgets

To compete with the automobile, College Heights provides acceptable times for commuting, shopping, meals out, long trips, and other trip purposes for its markets. Travel time budgets are a better explanation of travel behavior than mode of travel. People do not minimize travel time; they optimize travel time for primary trip purposes, housing quality, and what they can afford. College Heights dramatically reduces vehicle miles traveled (VMT) and pollution without affecting travel time mobility.
Health and safety

Walking. Walking is culturally complicated. Some people may buy into College Heights just to put themselves in a situation where they will walk more. College Heights is designed with features to encourage walking. Yet the design cannot go too far or it could lose sales. Distance to a car and the bus is one issue.

Auto accidents. College Heights’s walkways and less use of cars in general will reduce risks of auto accidents.

Exercise. Residents will walk more and get more exercise and be healthier. Stairways encourage walking inside. Units in College Heights front on walkways, with pedestrian friendly design. Residents walk to reach the Village Center and the parking lot. College Heights will have a fitness center, trails, parks, and some access to nearby sports fields, swimming pool, and tennis courts.

Overweight. A more active, less sedentary lifestyle stimulates fitness and weight control.

Building materials. Buildings will be designed for health. Wall paneling will avoid plywood and particle board that use formaldehyde-based glues and resins. Floor coverings will be from sustainable sources, such as natural fibers like wool, cotton, or hemp, with minimal stain repellants, and installed with tacks instead of adhesives. Paints, adhesives, and sealants will be low in volatile organic compounds (VOCs) and be Green Seal certified.

Noise. Noise pollution within buildings will be prevented by special sound proofing between units. Without cars there will be no traffic noise, but given the closeness of the units, the HOA will have to have clear rules about noise and enforce them.

Security. More walking requires high security. Security measures include defensible space design (fencing, good sight lines, windows on the walkways, lighting, no hiding places). A manager will be on duty at all times, be available by cell phone, and patrol the site on an unpredictable schedule. The main walkways will have security video surveillance (CCTV) monitored from the Village Center. There should be entry gates at the entries to the two main walkways which close at night. The Foothill Trail will be gated at night. Special measures will be taken quickly if a security problem arises.
Attractive design

How to create a perception of spaciousness in a high-density neighborhood? The issue is not how dense to build it, but how to build it dense—without looking dense.

The components of good design include building mass and setbacks, streetscapes, facades, and long views. Building mass and setbacks are defined by the shape, height and lengths of building facades and their distance across the street or walkway from each other. Human-scale, three-story height has less mass than higher buildings and is only one story higher than typical single family. The distance between facades is 30 feet or more. The buildings avoid massiveness by breaking up long walls with offsets among frontages, internal balconies, bay windows, and pushouts.

Focus groups can be used to determine the facades, colors, upgrade options, and floorplans that appeal to the largest market.

College Heights proposes to use neo-Victorian design with lapped siding, dentils and brackets, roof cornices, transoms, slanted and square bay windows, balustrades, porches and porticos, decorative elements on walls, etc. Victorian colors have a light toned main color, a stronger contrasting trim color, and a flashy highlighting color.

From a cornucopia of possibilities, College Heights will incorporate a limited, coherent, set of design choices—variety with a consistent theme. Buyers are offered choices that are both affordable and have enduring eye appeal—a gift to the walkway.
Streetscapes

The streetscape look inviting, familiar, and comfortable, like an up-scale old neighborhood. Longer views down the walkways will be varied—a long graceful curve, views into a park, or facades at an angle from the viewpoint. Some views will be a short distance, others long. Five small parks provide varied views. Some units will have views of San Francisco Bay to the west.

Buildings have ground level flower boxes. Walkways have alternating trees and old-fashioned streetlamps. Intersections could have statuary lions to create entry ways. Setbacks between the walkways and building fronts will be planted and maintained by the homeowner or the HOA.
Facades
Here are examples of Victorian facades and elements of Victorian design.

Community

College Heights will take what we have learned about condominium owner associations and improve on it.

The HOA

The College Heights Homeowners Association (HOA) will operate to have turnover on its Board, elections, and periodic rotating participation opportunities by all residents. This will balance the need for institutional memory and experience with new voices and expand the network of people who know each other.

The Board retains professional building managers on-site. We estimate that the Manager could be paid $110,000 per year and the Assistant Manager, $75,000, in both cases including the value of their apartments (which lowers their taxable income). The Board will work with a professional HOA management company on personnel issues.

The managers will manage the common assets, which are the walkways, landscaping, parks, open space, trails, the Village Center and its Community Center, Village Bus, Village Van, electrocart, and the parking. They will manage collection of HOA dues, certain condo sales, rentals by condo owners, vouchers, various services in the Community Center, security services, events, and maintenance of the outsides of buildings.

Management will have an explicit responsibility to know everybody and managing problems early. The HOA will have clear rules for common nuisances and equally clear enforcement, well-understood before people move in.

The HOA and manager will sponsor community events that bring people together, such as holiday-related parties or movies or cookouts.

Pets

The HOA will have rules for reviewing pets before a sale or rental to screen out pets with temperaments that would intimidate other residents or cause other problems for the community. The HOA will have rules for managing pets. Pets will generally have to be kept inside. Cats and dogs could be limited to two per household. Dogs will have dog park, basically fencing to keep dogs inside but free to run. The HOA will post rules dealing with pet waste, noise, and other nuisances.

Public Space and Privacy

Walkways and courtyards make it easy to get to know neighbors. The Village Center encourages social interaction at the office, mailboxes, café, and Village Square. The design invites people outside in good weather to walk, jog, or just sit.

“I want to be alone!” The HOA will have guidelines for respecting privacy, and those who want privacy will have it.
The Market

Developers typically consider comparables based on auto-dependency for all buyers. College Heights challenges developers to consider the viability of alternative mobility for specific markets.

College Heights will primarily sell to a market that does not routinely commute by personal car: Cal State East Bay, people going downtown and to BART, home occupation and work from home, and retired.

**CSU East Bay Hayward**

Administrators, staff, faculty, students, and others who want to live close to the university will have a two-minute ride on the Village Bus or an easy walk to the center of the campus. College Heights will help the university provide affordable housing very close to the campus for students and faculty. Affordable rentals with no parking costs for students are a major College Heights market.

**BART and downtown**

Residents can reach Hayward BART, regional buses, downtown Hayward, and other local employment in the Mission corridor. The Village Bus reaches BART in six minutes with a total travel time of 15 minutes. Hunt for parking and park? Nope. Cost of parking at BART? Zero.

**Work from home, home occupation, home office workers**

The three-bedroom townhouse has 340 square feet of flex space, especially designed for a home office, telecommuting, work-at-home, workshop or other use, and the other units can also serve these purposes.

**Retirees and seniors**

For retirees and seniors, life in College Heights is free of house and yard maintenance; the HOA does all the outside work. If driving skills are declining, College Heights offers alternative mobility. Empty-nesters may be tired of rattling around an empty house. College Heights makes travel easy: lock the front door and you're on your way. College Heights provides a peaceful and safe environment with opportunities for social and recreational activities.
Families
Communities elsewhere show that safe walkways are a magnet for families. College Heights will have a Tot Lot or two. The Village Van will chauffeur to schools and children’s activities. A few handy seniors might want to do some babysitting.

People with Disabilities
No car traffic and no curbs. Walkways easy for wheelchair use. Ground entries have no steps. The Bus will have no-step entry with wide doors.

Health Seekers
Residents will have low pollution and free access to a fitness center, parks, hiking trails, and nearby swimming pool, tennis courts, and playing fields. Some people want an environment where they walk more for health.

Environmentalists
College Heights is super green, achieving goals relating to greenhouse gases, passive solar, net zero solar energy reduced vehicle emissions, and habitat enrichment.

Co-housing, social community
Community-seekers value the kind of easy sociability College Heights provides along walkways, in little parks, and at the Village Centers, while in suburbia people pass each other in cars and may have few neighbors. College Heights could accommodate some co-housing, a small collection of families with separate units in a contiguous area, perhaps sharing a common space, like a garden.

Walkways vs Cars
More land in streets with parking means fewer units. Parking underneath means a higher cost per square foot of living space. HAPA analyzed the quarry site using a land use design program, Design CAD, to change the ROW (right-of-way) and the units among plans. The analysis compared a Cars plan with narrow streets (36 feet wide; 8-foot parking lanes; 10-foot travel lanes) to a Walkway Plan with walkways 20 feet wide. The areas for parks, setbacks, floorplans, building height and so on were otherwise kept the same.

The analysis also assumed one underneath parking space per unit for two-bedroom condominiums and two underneath spaces for townhouses. We found that streets with parking and parking underneath caused a 36 percent reduction in the number of units possible—737 for walkways and 468 for cars. The wider right of way and wider units took more area per unit.

An analysis of building costs using Building-Cost.net for 2019 found that parking underneath increased costs for a three-bedroom townhouse for the same living space. Cost per lot went up 49 percent. Increased building costs and increased lot costs combined to make unit price go up from $460,800 to $653,400, 42 percent.

Infrastructure costs were also higher with streets and parking.

The right-of-way shown in the Request for Qualifications in the figure for Roadway Typical Section was even wider: 50 feet wide. Selling more units at a lower cost would be more profitable.

Financing
An extensive proforma for College Heights available from HAPA shows a rate of return for 732 units over seven years with a 20 percent internal rate of return on equity using the Excel Goal Seek macro, which calculates return very accurately. It has a year for entitlement, a year for design, a year and half for site improvements...
to first building pads, and then sell about 15 units per month, closing out in year seven. The proforma has 18 Pages: Overview, Phasing, Absorption, Inputs, Summary, Cash Flow, Revenues, HOA Assets, Energy, Residential Units, Building Fees, Building Team, Site Improvements, Parking Podium, Project Fees, Project Team, Land, Timing.

Our 2023 estimate ranged from about $331,000 for a studio to $1,080,000 for five bedrooms. Dues to the HOA (Homeowners Association) will run from about $156 to $204 per month per month.

Reducing Risk

Developers are risk averse because developments require large investments up front with years to earn a return, during which time conditions can change and push a project underwater. College Heights is a new kind of project, without a history or comparables. The absorption rate is particularly difficult to predict. We propose four risk reduction strategies.

Market research: A proposal by InterQ using travel diaries, interviews, and focus groups of the specific markets would be helpful; conventional market research is irrelevant.

Reservations: A target for reservations could be stipulated before significant investment. The California Department of Real Estate allows a developer to take money down to reserve unit, based on having entitlement. The City could cooperate on expedited entitlement and getting an Overall Preliminary Public Report from DRE. Falling short on reservations will alleviate the developer’s obligation to build the project.

Parking: Parking supply could increase to the extent the non-car modes system falls short of minimal absorption, but still limiting parking to one per household and maintaining deparking incentives.

Fall back plan: If absorption falls short of a two-year target, it will allow shifting to an approved fall back plan with more parking.

Other savings are available from phasing site improvements and phasing the implementation of HOA assets.

Wanted: Investors with imagination, deep pockets, and a long-time horizon, who want to make history as well as money.

View of the Bay from College Heights