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The Affordable Housing Demonstration

Everett
Washington

A Case Study



The Joint
Venture for
Affordable
Housing

**The Affordable Housing
Demonstration
A Case Study**

Everett, Washington

**Prepared for:
U.S. Department of
Housing and Urban Development,
Division of Building Technology**

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Summary

The Everett, Washington, Affordable Housing Demonstration project is located on 20.4 level acres surrounded by heavily wooded land. The 81 unit single-family detached development, "Sunridge," is easily accessible to downtown Everett and other local employment centers.

The city was interested in participating in the Affordable Housing Demonstration program, and identified Boyden Realty, Inc., as an innovative local builder. Boyden was officially designated by HUD as the developer/builder of the Everett project in February 1983. The Everett city council adopted a resolution supporting the project in the same month.

Sunridge homes are sited in a zero-lot-line configuration, with one side of the unit on the lot line. Designed to create a feeling of openness, the homes have vaulted ceilings, living areas opening onto outdoor patios, decks enclosed by

cedar fences, free-standing wood-burning fireplaces, and greenhouse windows. All homes have double garages. Market studies conducted prior to design of Sunridge indicated the target buyers would accept smaller lots than normal in Everett, but demanded sound construction and amenities.

The three single-family detached models range from 1,076 square feet to 1,624 square feet and are priced from \$64,500 for a 2 bedroom, 2 bath model to \$76,500 for the 3 bedroom, 2-1/2 bath model. (Average new home price in Everett is \$80,000-\$85,000.)

Costs saved through reduced regulations and builder/developer changes from normal practice in Everett totaled \$10,047 per unit. These savings included: \$1,477 for administrative and processing changes; \$7,089 for changes in land development; and \$1,481 for building design and construction changes.

The Joint Venture for Affordable Housing

Housing costs have risen dramatically in recent years, so that many people have been unable to buy a home. Part of this cost increase was due to the high rate of interest on home mortgages, which reached almost 20 percent in some areas of the country before dropping under 14 percent in 1983.

A large part of the increase, however, was due to other factors -- rising costs of materials and labor, a reduction in the amount of land available for housing which has drastically increased lot prices, and changes in market patterns leading to larger homes on larger lots. Studies by the President's Commission on Housing and by a special U.S. Department of Housing and Urban Development (HUD) Task Force on Housing Costs confirmed the findings of earlier studies showing that ways exist to cut the cost of housing. These studies also show, however, that out-of-date regulations and building practices frequently prevent these ideas from being applied. In fact, the studies pointed out that many builders and local officials do not even know about many of the ways that exist to reduce housing costs.

The Joint Venture for Affordable Housing was initiated by HUD Secretary Samuel R. Pierce, Jr., to correct this situation. Since affordable housing is a problem which involves all levels of government as well as the rest of the housing industry, finding an answer requires the participation of all of these elements.

Through conferences, workshops, demonstrations, publications, and

similar activities, ways to cut construction costs through more effective and efficient planning, site development, and building procedures are being brought to the attention of builders and local government officials all over the country.

The Affordable Housing Demonstrations

Home builders learn from other builders; successful ideas are copied and used in new ways by other builders in many different areas of the country. The affordable housing demonstrations have been developed to illustrate ideas for reducing housing costs in real projects and to provide information on the cost savings that resulted.

The central theme of the demonstration program is that a builder and those local officials responsible for regulatory approval can, together, identify ways to reduce the cost of housing and to modify or interpret local building codes and site development regulations so that these methods can be used. In the demonstration program, no Federal funds are provided either to the builder or to the community to support the demonstration projects. HUD and the National Association of Home Builders Research Foundation do provide technical assistance through various publications documenting previous research studies and through suggestions to the project designers, but it is the builder's responsibility to develop a list of possible cost-cutting ideas and it is the responsibility of local officials to accept those which are reasonable for that community.

Participating builders and communities have been selected for the demonstration program in several ways. Before the Joint Venture was announced in January 1982, HUD approached a number of communities which had already demonstrated, in other activities, a willingness to modify regulations and to take other steps to encourage local development. As these communities agreed to participate in the program, NAHB worked through its local associations to identify builders in the communities with reputations for quality and records of innovation. Following announcement of the first twelve communities and builders selected to participate in the demonstration program, many other communities and other builders expressed interest in joining the program. In each case, HUD required a formal commitment by the highest elected official that the local government would support the program.

Once a project was accepted, HUD and the NAHB Research Foundation assisted the builder to identify cost-cutting ideas and to develop a workable, attractive site plan. The cost-cutting measures used in the various demonstrations vary widely. In some projects, street widths, street design standards, and utility system requirements were changed to reduce costs. In other projects, unit densities have been increased to reduce the impact of land cost on the final price, while good site planning and design have made this increased density acceptable to the commu-

nities. New housing materials and construction methods were used in many projects. In addition to these changes in materials and methods, many projects benefited from improvements in local administrative procedures which reduced the time and effort needed to obtain building and land use approvals.

The Case Study Approach

Each project undertaken as an Affordable Housing Demonstration as part of the Joint Venture for Affordable Housing is being described in a case study report. The case studies are intended to be learning tools to help home builders, local officials, and others concerned about affordable housing to recognize and seize opportunities to reduce housing costs through regulatory reform and the use of innovative planning and construction techniques.

Information on the changes and their impact on costs is collected by the NAHB Research Foundation. Each case study describes the community, outlines the builder's experience, and discusses the specific project characteristics and history. Where possible, the cost savings resulting from the use of the various procedural, planning, development, and construction changes are calculated and reported in detail.

The following material provides this information on the Affordable Housing Demonstration project in Everett, Washington.

Project Description

The Community - Everett, Washington

Everett, Washington, is 25 miles north of Seattle at the mouth of the Snohomish River, on the eastern shore of Puget Sound. Puget Sound occupies a major lowland area between two mountain ranges, the Olympics to the west and the Cascades to the east. The Sound, mountains, and nearby rivers and lakes offer Everett residents an abundance of recreational opportunities.

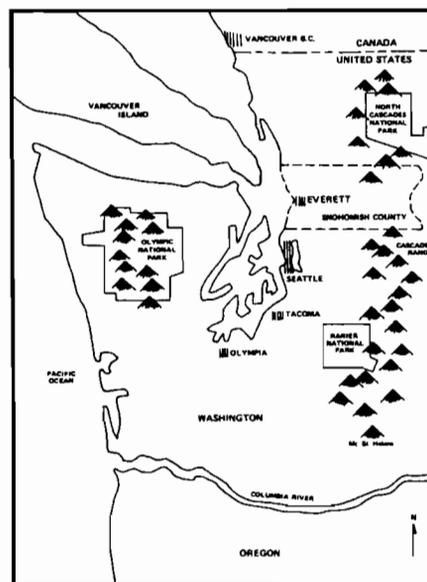
Everett is the largest city in Snohomish County, with a 1982 population of 56,700 and 43 square miles of land. City area and population expanded through annexations which added 13,000 people between 1960 and 1970. Snohomish County population was 356,400 in 1982; median household income was \$21,600.

The City of Everett is the economic, financial, governmental, educational,

medical, communications, and cultural center of the county. It provides approximately 50,000 jobs for the Snohomish County area, principally in aerospace, electronics, and forest products manufacturing. Major industries and employers include: Boeing Company; E. A. Nord Company (wood products); John Fluke Manufacturing Company, Inc. (electronics); Scott Paper Company; Western Gear Corporation (aircraft products); and Weyerhaeuser Company.



Everett logo



Map of state

The Port of Everett provides cargo transit and storage, log export, container cargo facilities, bulk handling, a large marina, industrial and commercial sites, and transportation. The Port has approximately 2,000 acres available for potential development. The City is negotiating with the Federal government for a large naval facility to be located within city boundaries and expected to draw 10,000-20,000 people.



An Everett marina

Everett has moderate temperatures, ranging between an average low of 33°F in January and an average high of 75°F in August. Average annual rainfall over the past 30 years is 38.79 inches. Normally, a few light snowfalls cover the city each year. Everett is protected from severe weather and marine storms by the Olympic Peninsula and Pacific Ocean.

The Everett area has a wide variety of housing styles within a broad price range. The estimated average sales price of all homes in 1984 was \$73,000-\$74,000, and the average new home price was \$80,000-\$85,000, according to local realtors. Fifty-eight percent of Everett residents own their own homes, according to the 1980 U.S. Census. Residential vacancy rate is 2.8 percent, with single family vacancy rates at 1.5 percent and rental

apartments at 6.0 percent. Between 1976 and 1983 the City of Everett Planning Commission approved twenty subdivisions of nine or more lots.

The City of Everett operates under a full-time Mayor and seven part-time City Council members. All serve four year terms and are elected on a nonpartisan ballot. The city employed 634 full-time workers as of December 1982.

The Planning Commissioner or Hearings Examiner reviews all land use policy regulations. Final decisions rest with the City Council.

The Planning Commission consists of seven members with responsibility for development of land use policy and specific regulations, and review of larger projects having community-wide impact. Twice monthly meetings are scheduled and special meetings held as required.

The Builder - Boyden Realty, Inc.

Boyden Realty, Inc., developer, builder, and realtor for Sunridge was established 13 years ago. Richard Boyden, president of the company, has worked in real estate in the area for the past 21 years. Fifteen years ago he began developing sites of five acres and less. Boyden Realty began a building operation five years ago



Rich Boyden, Boyden Realty Company

and since then has constructed four or five homes per year in the \$60,000-\$200,000 price range, in addition to apartment and office buildings. Boyden subcontracts for all development and construction and has only four staff members on the payroll.

Boyden and his partner, Hank Robinett, agreed to participate in the Affordable Housing Demonstration in December 1982. HUD designated the project an affordable housing demonstration in February 1983.

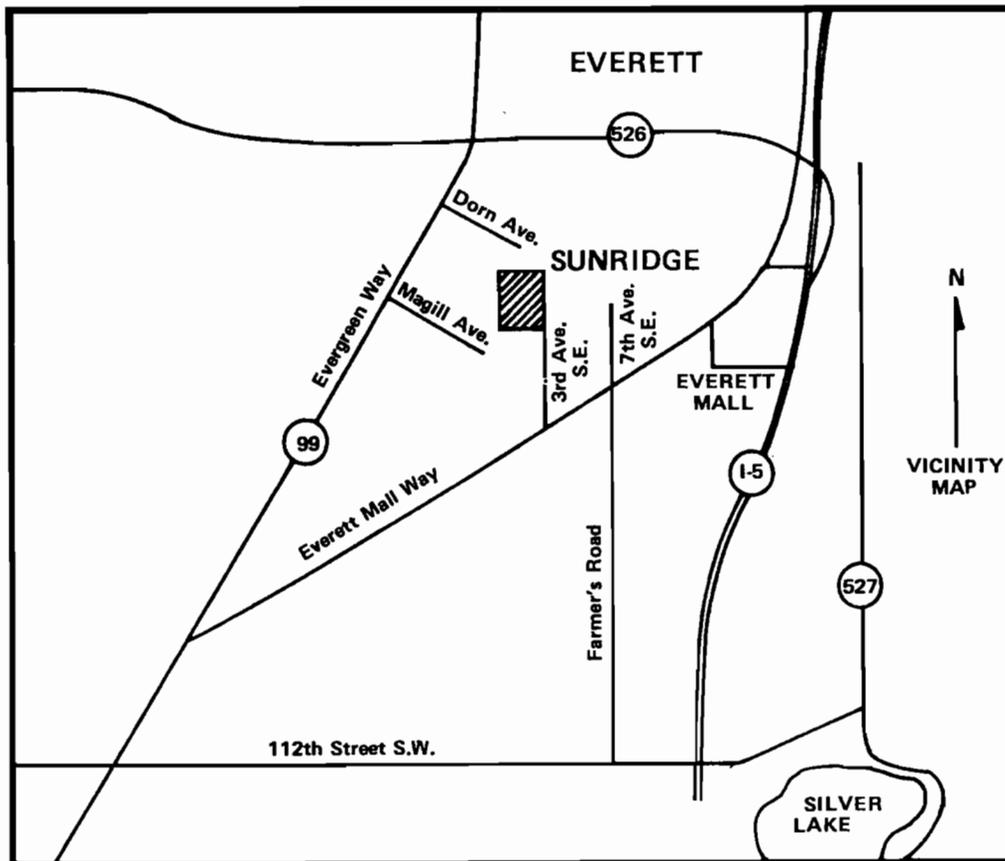
The Project - Sunridge

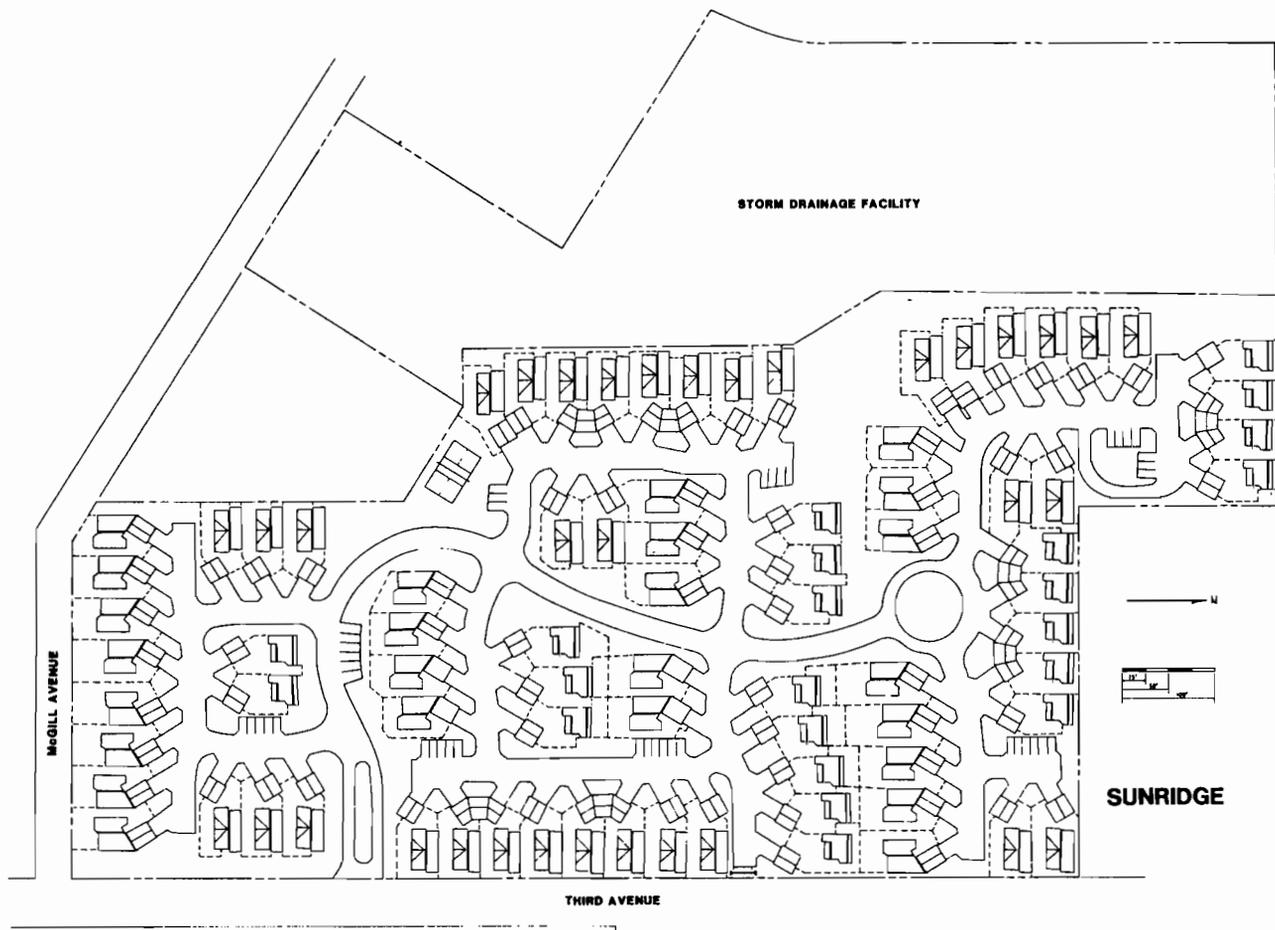
Sunridge is a 20.4 acre single-family detached housing development near an established low density residential area in South Everett, easily accessible to downtown Everett and other local employment centers. The site is generally level, with the



Logo

exception of the western portion which slopes down to a stream. Almost six acres (5.8) of the property adjacent to the stream were dedicated to the city for a regional storm water detention system. An additional 2.4 acres of commonly owned open space are spread throughout the site. The 81 unit subdivision is built on the remaining 12.2 acres at a net density of 6.6 homes per acre.





Sunridge plat

The three single-family detached model homes range from 1,076 square feet to 1,624 square feet. Floor plans of each model are in Appendix I.

Plan A model is a 1-story, 2 bedroom, 2 bath home of 1,092 square feet priced at \$64,500. It has an open beam living room with a sliding glass door to a large deck, a kitchen with a greenhouse window and vaulted ceiling with high windows, and a dining room with a sliding glass door to a private patio.



Plan A home

Plan B is a 2-story, 3 bedroom, 2-1/2 bath home of 1,624 square feet priced at \$76,500. The home features a den, sunken living room with solarium window, and kitchen greenhouse window.

Plan C is a versatile 1-story, 2 bedroom, 2 bath home of 1,076 square feet, priced at \$65,500. The home features an angled entrance way, and has clerestory windows admitting light into the living, dining, and kitchen areas.



Plan B homes (side view)



Plan C home (rear view)

All homes include: parquet entry flooring; oak kitchen cabinets and bathroom vanities; a utility room; a master bath; and a free-standing forced-air wood-burning fireplace.

All homes have double garages with sectional garage doors. Six-foot

cedar fences with attractive wrought iron gate entrances enclose each yard for privacy. All homes have tight knot cedar siding, and concrete or wood deck patios. Areas outside the fenced yards have been professionally landscaped.



Interior



Sunridge home showing fence, gate, landscaping

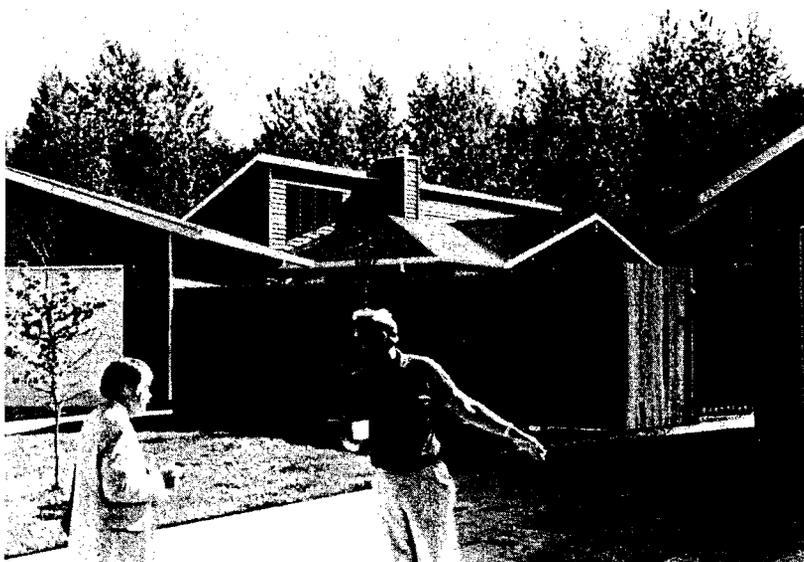
The homes are sited using a zero-lot-line concept, with one side of the unit on the lot-line. To provide privacy to the adjacent home, the wall of the unit on the lot-line has no windows. This siting provides one large side yard for each home instead of two small, less functional yard areas. Most homes are placed so the large side yards have southern

exposure, and the front or rear yards get some sunlight.

Sunridge homes are designed to make the smaller units energy efficient, attractive, and marketable. Boyden was especially attentive to details which appealed to his target market, such as interesting angles, privacy, and an abundance of light.



Private patio in 2-story occupied Sunridge home



Zero-lot-line siting with fence and garage placement adds to privacy.

The innovative use of interior space such as vaulted ceilings, living areas opening onto outdoor patios, and greenhouse windows created a feeling of openness.

Secondary streets leading to the houses branch off the main access street that runs through the site. Most of the secondary streets terminate in T-turnarounds.



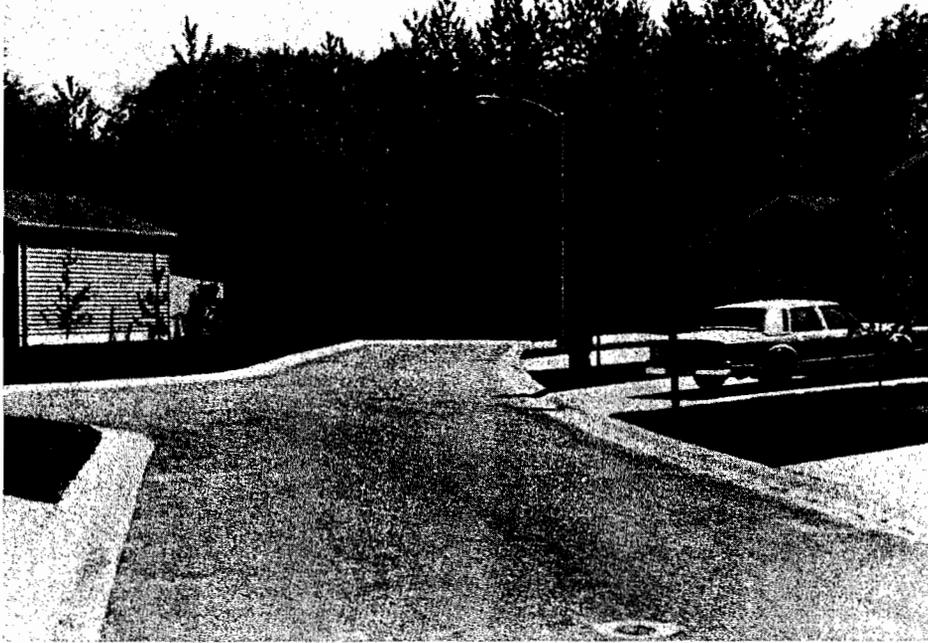
Sunridge designs emphasize angles and light.



Greenhouse window

All common areas are landscaped and will be maintained by the homeowners association. Other area amenities

include: a sport court; park and play area for children; and guest parking areas.



A Sunridge T-turnaround

Project History

Mayor William Moore and the City of Everett agreed to work with the Department of Housing and Urban Development (HUD), the National Association of Home Builders Research Foundation, Inc. (NAHB/RF), and a local builder to produce a housing development which was more affordable through more effective and efficient site development and building procedures. The city, in fact, was so supportive of the affordable housing objectives that several city staff and the City Council Chairman, Dale Pope, went to the National Association of Home Builders' Convention in January 1982 and 1983 to learn more about the program and how Everett could gain from participation.

The Snohomish County Master Builders wrote to local builders/developers explaining the Affordable Housing Demonstration. Richard Boyden and Hank Robinett, partners of Boyden Realty, Inc., expressed interest in the program and in December 1982 were selected by the city to participate in the demonstration.

The Everett City Council adopted a resolution supporting the demonstration project on February 9, 1983. HUD designated Boyden Realty as developer/builder of the Everett demonstration project and officially announced the firm's participation in February 1983.

Background

Boyden Realty, Inc., owned a 20.4 acre tract of land in South Everett, about six miles from downtown and three miles from the Boeing Company, largest employer in the area. Initially, Boyden wanted to build townhouses on this land and discussed possible rezoning of the property from R-1 to R-2 to allow townhouses. However, the neighbors strongly

contested the rezoning, and expressed their desire to maintain the single-family detached character of the area.

Boyden Realty then initiated a housing market research study to establish if a market existed for the typically priced traditional single family houses desired by the neighborhood. The study showed that the greatest housing need in the area was by first-time home buyers between 25 and 35 years old, who could not afford the \$85,000 cost of an average Everett single-family detached new home. The research also showed this target group would be willing to buy a smaller home on a smaller lot, as long as the unit was of high quality.



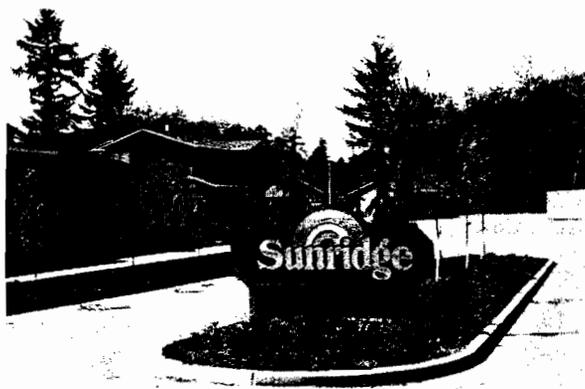
Example of high quality, smaller, private Sunridge home

Under the existing R-1 zone and standard Everett regulations, it was not possible to construct single-family detached homes that could be competitive in the target price range of \$65,000 to \$75,000. Standard lot sizes, street widths, unit setbacks from the street, street rights-of-way, parking requirements, etc., resulted in high development costs. Those costs, added to the market demand for quality construction and amenities, made prices too high.

Boyden worked with his project land planner, Gary Wight, and his architect, Gary Parkinson, to design a subdivision that would be acceptable to the city and the neighborhood, and still meet the needs of the existing market.

The Neighborhood

The first step for Boyden Realty was the acceptance of the Affordable Housing Demonstration project by the immediate neighbors. Under Everett's regulations, neighborhood groups can appeal plans they feel are inappropriate to their area at Planning Commission Public Hearings. Therefore, in January 1983, immediately after joining the Affordable Housing Demonstration program, Richard Boyden and Gary Wight met with the neighborhood coordinating committee to address the concerns of both parties and insure compatibility of the proposed plans with neighborhood objectives. Wight continued to meet with individuals from the community over five months to explain the project, to assure that it wasn't a subsidized "low income" project, and that it wouldn't follow the route of a recent unsuccessful project in the city.



Sunridge entrance

According to Gary Wight, the key issue in the successful

implementation of the Sunridge concept was communication with the neighborhood outside of the normal approval process. Considerable time was saved by addressing neighborhood concerns before drawing plans and entering the approval process.

City/Builder Cooperation

Participation in the Affordable Housing Demonstration and support by the Mayor and City Council enabled Boyden Realty, Inc., to negotiate with the city to change some restrictive standard regulations. Richard Boyden and Gary Wight worked closely with city staff, most prominently Dennis Gregoire of the Planning Department, to change standards and regulations which would reduce costs. Technical assistance was received from HUD, NAHB, and NAHB Research Foundation.

The city designated Sunridge as a Planned Residential Development (PRD) and allowed standard regulations to be changed to fit the demonstration project goals as explained in Chapter 3. The PRD typically allows some deviation and waiving of standards.

According to City Council President Dale Pope, a supporter of the demonstration as a trial approach for provision of affordable housing in Everett, the city intends to watch Sunridge over the next few years. He anticipates surveying the residents on the quality of life in Sunridge, the sense of community, their satisfaction with streets, parks, and other shared features, and maintenance and satisfaction with home construction, style, and privacy. Further, Pope anticipates comparing the Sunridge development and residential survey with similar criteria and surveys of two other older neighborhoods built to typical standards and practices.

Approval and Construction

The Sunridge project was formally presented to the City of Everett for approval in April 1983. The first and second Planning Commission Public Hearings were held in May 1983. The City Council concurrently approved the preliminary and final PRD and preliminary plot in June 1983.

Site preparation began immediately. Building permits were issued on the three model units in October 1983 and Open House for Phase I of Sunridge was held March 16, 1984, 14 months after the initial neighborhood

meeting. (A detailed schedule is in Appendix II.)

Marketing

Boyden Realty marketed Sunridge to its original target group of first-time home buyers in the 25-35 year old age category. Newspaper ads and flyers preceded the invitational Grand Opening on March 16, 1984. News and feature articles in THE EVERETT NEWS TRIBUNE and the EVERETT HERALD, and a press release circulated by HUD, also announced the project to the public.



Cluster design

Sunridge under construction



April 6, 1983

Local experiment may reduce the cost of housing

By John Townes

When the ground is broken for the new Sunridge housing development in South Everett, the ground will also be broken for an innovative experiment that may bring the cost of buying a home within the reach of more people.

The project's immediate goal is to provide Everett with 80 new single family homes in the \$55 to \$75 thousand price range, similar in basic quality to homes normally in the \$75 to \$90 thousand range.

But it is also part of a nationwide experiment, in which the public and private sectors are working together to explore new ways to improve the overall housing picture by lowering the cost of building and financing new homes.

Sunridge is a private housing development that is part of this federal pilot program, the Joint Venture Affordable Housing Demonstration Program. The Joint Venture program is a partnership between cities, the federal department of Housing and Urban Development (HUD) and the home construction industry.

If the pilot program succeeds, it could encourage the development of new forms of neighborhood housing that reflect the changing realities of modern times.

Or, on a less sweeping level, it may simply provide planners and builders with a workshop to study minor modifications in existing building patterns to better adapt to modern construction techniques.

"This will be a way to explore new technology," said Mayor Bill Moore last week. "This project will enable us to find out if there are ways to build houses at a lesser price by using new forms of building materials and other innovative ideas."

For the developer, the program provides an opportunity to try new approaches to the design and construction of housing developments.

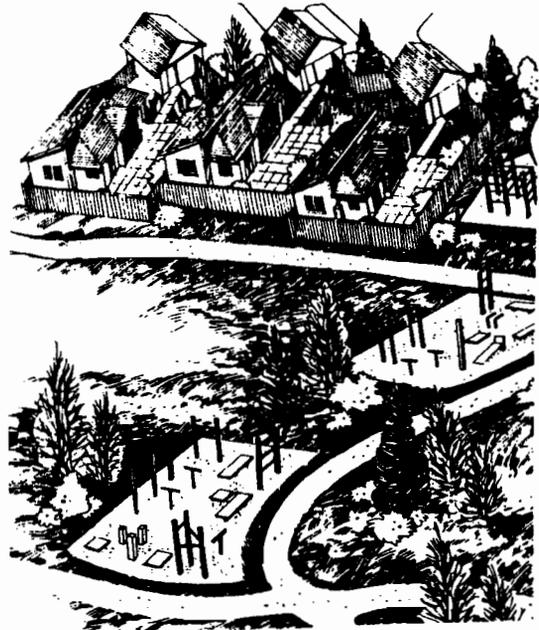
For the city, it is an opportunity to find out if there are feasible ways to reduce cost of constructing housing, by adopting more flexible building and land development standards that better reflect modern construction methods.

And, for many consumers, it may bring the cost of buying a home back within reach. By reducing construction costs, the builder would be able to build the houses less expensively, and pass the savings along to the homebuyer.

While the project is the brainchild of HUD, a federal agency, it is not a program of government subsidy. HUD's involvement is only on the level of guidance. HUD will provide technical expertise and assistance to the builders, cities and homebuyers, but not money.

The specific approval process and actual work of the project is left to the city and the builders participating in the program.

"That's the beauty of it," said city council president Dale Pope. "With federal funding, there are a lot of strings attached. In this program, it's up to the city and the builder to make the decision."



Source: Everett News Tribune
April 6, 1983

Traffic to the development was heavy during the first few weeks following the opening. Of the 28 homes in Phase I, the demonstration phase, 17 were sold in the first three weeks. Business was so good, advertising was halted. Then interest rates rose and traffic at Sunridge fell off. As of November 4, 1984, 23 units were sold and 20 homes occupied.

Of the original 23 home buyers, 60 percent are first-time buyers, several of whom are single professionals. The remainder are empty-nesters and retired people interested in security, a sense of community, and a smaller yard. Eight

people purchased Plan A home, five Plan B (the 2-story, 3 bedroom), and ten Plan C. Most financed with state bond money at 11.18 percent. There were no FHA applicants among the original 23 buyers. Two homes were bought with cash.

The next stage of advertising, which began mid-June 1984, was large testimonial ads in local newspapers and glossy publications, produced by a professional advertiser. According to Boyden, however, sales are more directly related to the rising or falling mortgage interest rate than advertising campaigns.

“We’d encourage others to take a look at SUNRIDGE now . . .”

Nan and Harold Lippold share some reasons why they’re **SUNRIDGE** residents:

“**SUNRIDGE** offers us a home alternative that goes past condominium living . . . we’d already experienced that in downtown Everett.

“We like the quiet of **SUNRIDGE** . . . the two-car garage . . . our own fenced backyard . . . the privacy. We even have an excellent commute – just 10 minutes to our jobs in downtown Everett.

“There’s also the camaraderie we’ve already found with our neighbors. We don’t feel like isolated ‘newcomers’ to **SUNRIDGE** . . . we feel we’re creating our own neighborhood with the other new owners.

“Our **SUNRIDGE** home is a perfect size for the two of us, but it still offers room for our grown children when they visit. We were even able to specify certain modifications in our home’s construction.

“We did look around a lot . . . and what we saw before **SUNRIDGE** was nowhere near the quality for the same amount of money.

“We’d encourage others to take a look at **SUNRIDGE** now while the reasonable Washington bond money is available for qualified buyers.”

SUNRIDGE HOMES . . . Priced from \$65,500 to \$76,500



Example of testimonial ad

Changes and Their Impact on Costs

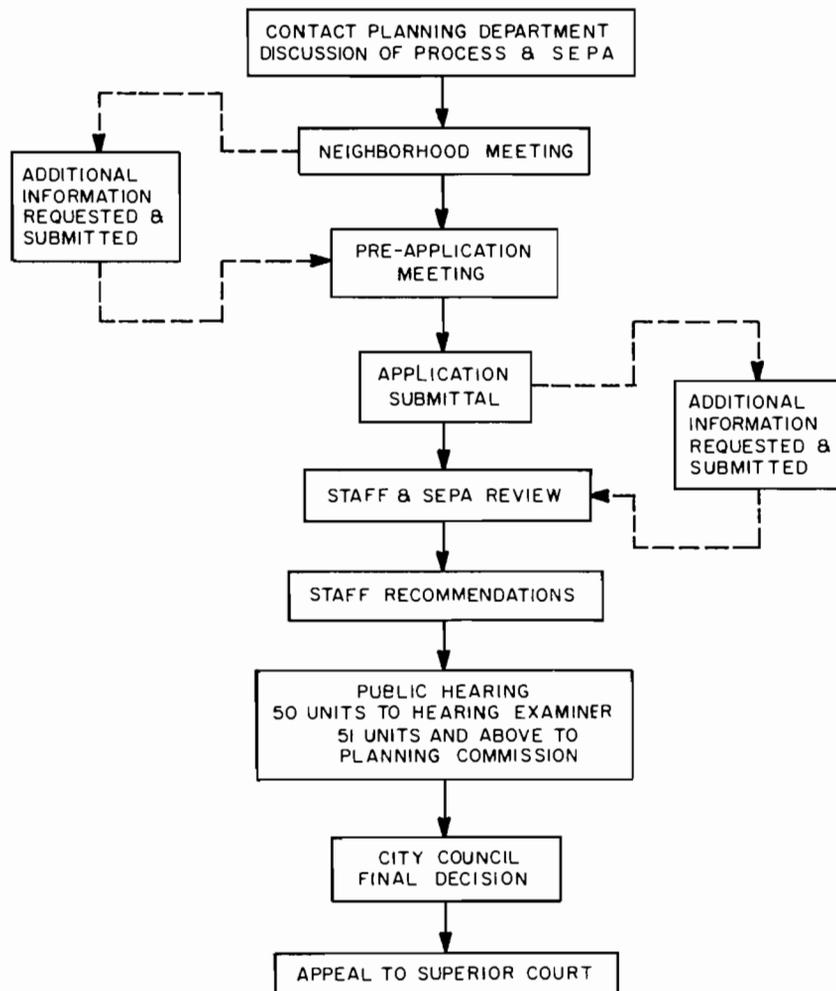
One purpose of the Affordable Housing Demonstration is to collect and evaluate sound cost data on residential development practices and construction techniques. The following discussion describes: the approval processes required for Sunridge in the City of Everett; changes in the process and in regulations requested by the Boyden Realty Company; and specific variances from the norm in administration and processing, site

planning and development, and building design and construction.

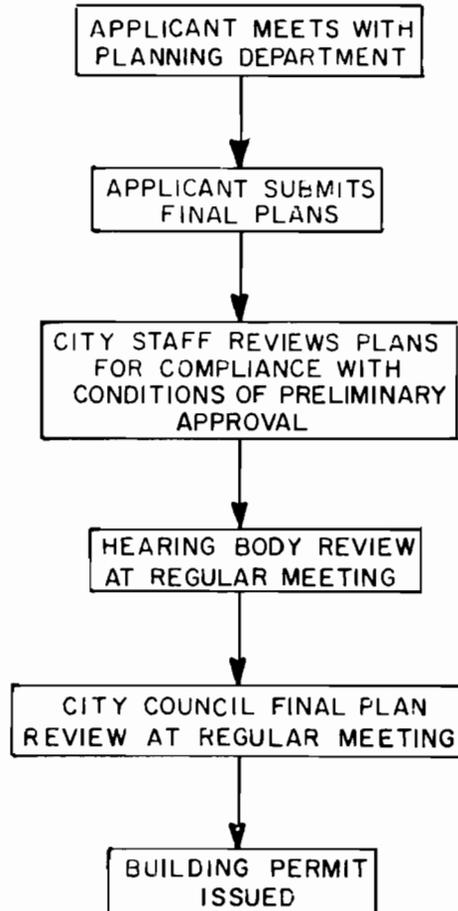
Change List Approval Process

As discussed in Chapter 2, the city of Everett designated the Sunridge site as a Planned Residential Development (PRD). The procedures required for PRD preliminary and final approval are available as handouts from the Everett Planning Department. Following are flow charts of these approvals.

PLANNED RESIDENTIAL DEVELOPMENT PRELIMINARY APPROVAL



**PLANNED RESIDENTIAL DEVELOPMENT
FINAL APPROVAL**



The PRD designation typically allows some deviations from normal subdivision standards. Most important to Boyden in development of Sunridge were city acceptance under the PRD of zero-lot-line design, smaller lots than normal, and reduced setbacks.

For the demonstration, the city was willing to go beyond normal PRD variances and consider relaxing additional regulations and processing procedures in order to reduce housing costs. The city council chairman, planning director, and city staff worked with Boyden and Gary Wight on specific issues described later in this Chapter.

Boyden and Wight submitted a list of requested changes to the city in early March 1983. All items requested for inclusion in the project were considered by the city during the following two weeks. Most requests were accepted. Some were already acceptable under the PRD ordinance; others were accepted for the demonstration only based on documentation and logic presented by Boyden. A more complete list of requested changes and their disposition is in Appendix IV.

Administrative and Processing Changes

As stated, most of the discussions concerning variances to normal city development standards for Sunridge occurred during the first two weeks in March 1983. The formal city review and approval process took two months, from April through June 1983. Normally the process takes from four to eighteen months. The positive attitude and extra effort on the part of the city staff shortened the process time. By fast-tracking the project and being willing to try new ideas within the demonstration project, the city saved many hours of meetings.

According to Gary Wight, Planner and Sunridge Project Coordinator, "Larry Crawford (Everett's Public Services Supervisor) has been superb. Without his personal commitment to reviewing all our requests, we'd be behind schedule and past Everett's construction schedule. He's given us sound engineering reviews and been open on each issue individually."

Converting Sunridge from a standard subdivision option to a PRD eliminated the need for rezoning. Rezoning could have required from six months to 18 months. The PRD approval took only two months.

One of the principle time-saving changes was in allowing concurrent preliminary and final PRD and preliminary plat approval by the City Council. This saved as much as four months.

Another time-saver, as discussed previously, was the success of several neighborhood meetings scheduled by Boyden to address and solve issues before they reached the city.

As noted in the Approval Process diagrams, public hearings on a PRD preliminary and final plan are held either by the Planning Commission or the Hearing Examiner. The Hearing Examiner, who is the final decision-maker unless appealed, approves only subdivisions of 50 units or less. This step saves time for smaller developments. Larger developments, such as Sunridge, must be heard by the Planning Commission, a body of seven individuals, which makes its recommendation to the City Council. Boyden requested a hearing by the Hearing Examiner instead of the Planning Commission, suggesting

this could save as much as six weeks in approval time. The request was denied, but the Planning Commission cooperated by holding its hearings on May 10 and May 24, 1982, earlier than normally expected; this cooperation was critical to the project schedule.

A total of \$1,477 per unit was saved on the Sunridge project through administrative and processing changes.

Site Planning and Development Changes

Because Everett allowed the PRD option, costs of developing land in Sunridge were lower than the norm. The PRD process in Everett already allowed several variances to normal city standards which were vital to reducing the cost of Sunridge units. These include:

- o zero-lot-line siting of units;
- o single-family detached units on minimum 4,500 square foot lots instead of the 7,000 square feet required under an R-1 zone; and
- o setback reductions.

For the demonstration, the city also allowed reductions in street width from 38 feet and 36 feet to 24 feet and 20 feet, and right-of-way reductions from 60 feet and 50 feet to 26 feet and 24 feet. They also accepted sidewalks on only one side of the collector street and no sidewalks on the local access streets, and permitted 4-inch roll curbs instead of 6-inch vertical curbs.

Boyden also saved money on land clearing in Sunridge. The normal procedure to clear land for developing is to load the scrub trees and brush and haul them away. However, burning permits have been



A space-saving T-turnaround

available in Everett for the past two years from the Puget Sound Air Pollution Control Agency (PSAPCA). The principle criteria for a burning permit is that fewer than 2,500 people reside within a 0.6 mile radius of the site. Originally, the PSAPCA calculated that 2,900 people lived in the specified area and rejected Boyden's request. Wight and Boyden reviewed the census tract data and convinced the agency that its estimate was incorrect. The PSAPCA accepted the revised estimate and issued the burning permit.

The storm drainage detention for the project also provided some savings. The low-lying approximately six acre western portion of the total 20.4 acre site was originally planned as North Creek Detention Basin 720, according to the South Everett Drainage Basin Plan. Boyden deeded 5.8 acres of the property to the city for storm drainage detention and avoided both paying drainage fees and accepting maintenance responsibility. Boyden's planner, Gary Wight, recommended to the city ways to make the basin attractive and increase its wildlife habitat potential through thoughtful sculpturing of the slope, adding heavy surrounding plantings, and maintaining wetland vegetation in the basin itself.

Polyvinyl chloride sanitary sewer pipe was allowed for the demonstration and has since been approved for use throughout the city. Cleanouts were permitted, eliminating the need for three manholes. Sewer runs were lengthened from the normal 300 feet to 600 feet.

Boyden negotiated changes in two off-site streets. First, the city had planned a through-street, McGill Avenue, across the Sunridge site. A survey of abutting property owners revealed the street was not wanted. Second, the city had originally required that the developer complete Third Avenue, which abuts the project. Owners of undeveloped property across and at the end of Third Avenue were not interested in completion of the street. Meetings with the neighborhood created a builder/neighborhood alliance to negotiate with the city regarding these two issues. The city abandoned rights-of-way for McGill Avenue, and changed requirements for Third Avenue, saving development costs for Sunridge.

A total of \$7,089 per unit was saved on site development costs in Sunridge.

Building Design and Construction

Reduction in rights-of-way and street paving resulted in shortened water, sewer, and electrical lines to each home. Driveways were also shortened, saving additional costs to the buyer.

The zero-lot-line configuration in Sunridge reduced the normal roof overhang by about 6 inches, resulting in savings. Fencing costs were also reduced by the zero-lot-line design in which the blank exterior wall of one unit served as a boundary for the abutting property.



Fencing for privacy

The city waived the normal firewall requirement for the demonstration, which did not affect the safety of the unit but did reduce construction costs.

Finally, the city reduced the sewer connection fees for Sunridge. When the initial plat for the development was approved, city fees were substantially lower than when the demonstration plat was approved. The city agreed to extend the old fee schedules for one year to accommodate the demonstration project.

Total building design and construction savings were \$1,481 per unit.

Details of Changes and Their Costs

In this chapter, costs of each change in Everett's standards and/or Boyden Realty, Inc.'s typical practice are discussed and compared to the method used in the demonstration project. The objective of the analysis is to show how much costs were reduced by comparing Sunridge "as built" to existing standards and practices.

ADMINISTRATIVE AND PROCESSING CHANGES

If Boyden had been required to apply for rezoning from R1 to R2 under existing Everett subdivision regulations, he would have lost from four to 16 months of development time. Assuming, therefore, that nine

months were saved by using the PRD option, Boyden saved approximately \$42,000 in interest on the land investment that would have accrued during this added time.

In addition, the city of Everett "fast-tracked" Sunridge and allowed concurrent processing of the preliminary and final PRD and preliminary plat, accelerating standard processing by at least four months. This saved approximately \$30,400 in interest on the land investment and development loan.

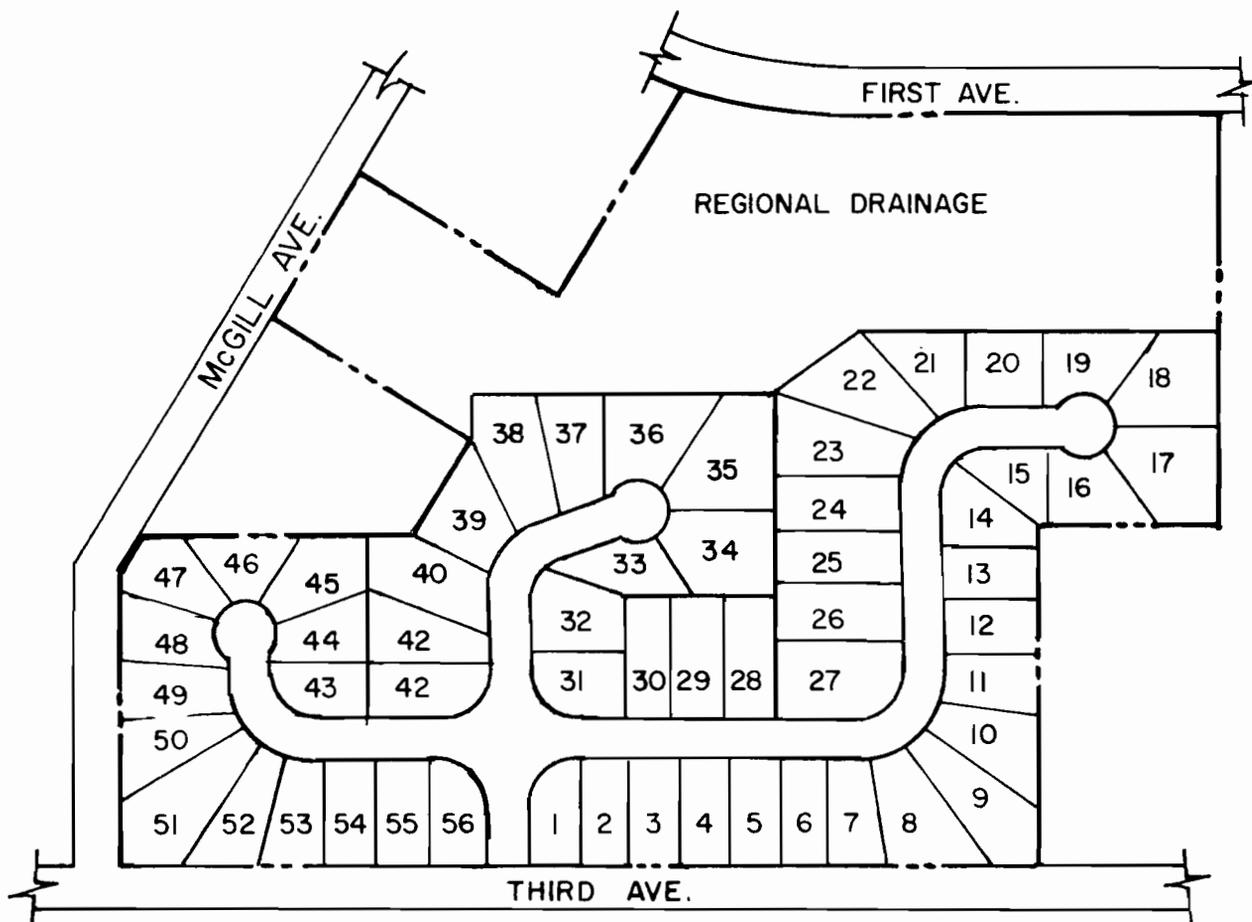
Because of the 13 months reduction in indirect expenses, property taxes, and material and labor cost inflation, \$47,223 were saved.

Reduction in Administrative and Processing Costs		
	Cost Savings	
	Total	Per Unit*
PRD vs. standard subdivision option	\$ 42,000	\$ 519
Fast-track processing and concurrent approvals	30,400	375
Indirect, taxes, and material and labor inflation	47,223	583
TOTALS	\$119,623	\$1,477
*81 dwelling units		

SITE PLANNING AND DEVELOPMENT CHANGES

This section presents land development cost comparisons of Sunridge "as built" versus the same project if built according to existing standards and practices. Some 25 building lots were added because of reduction in street

widths, reducing rights-of-way, eliminating sidewalks, zero-lot-line configuration, and reduction in lot sizes. Instead of the 81 units actually built, only 56 could have been built had the changes not been made. This 45 percent increase in number of units is reflected in the cost savings per dwelling unit presented in this section.



SUNRIDGE NORMAL CONFIGURATION

The above is an example of how the 14.4 acre parcel might have been developed using standard R-1 regulations (such as 50 foot street right-of-ways and 7,000 square foot lots with minimum frontage widths

of 60 feet). Only 56 lots would have been achieved with this approach, and no provision would have been made for recreational open space within the plat.

Following is a summary of land development cost savings. Detailed

analyses of each development phase follow within this section.

Land Development Cost Summary				
	<u>Demonstration</u>	<u>Comparison</u>	<u>Total Savings</u>	<u>Savings Per Unit***</u>
Raw land	\$400,000	\$400,000	\$ -	\$2,205
Land clearing and earthwork	57,970	79,940	21,970	712
Sanitary sewer	75,573	67,872	(7,701)	279
Water service	58,077	45,416	(12,661)	94
Electric service/ streetlights	34,992	34,992	-	193
Storm drainage	57,996	85,104	27,108	804
Curbs and gutters	40,743	40,743	-	224
Streets	119,879	210,793	90,914	2,284
Sidewalks	8,586	34,832	26,246	516
Landscaping and open space improvements	18,000	-	(18,000)	(222)
TOTALS	\$871,816	\$999,692	\$127,876	\$7,089
Cost Per Unit	\$ 10,763*	\$ 17,852**	\$ 7,089	

*81 Units as built
 **56 Units if built to existing standards
 ***Reflects both infrastructure changes and unit increase

Land Clearing and Earthwork

The Puget Sound Air Pollution Control Agency issued a burning permit based on a reevaluation of census data presented by the developer. The criteria for a permit is a population of less than 2,500 residing within a 0.6 mile radius of the site. The permit was originally denied because existing data indicated the number of

residents within 0.6 miles was greater than 2,500. Boyden conducted his own survey and found that existing data was erroneous.

Earthwork cost \$8,000 more than would have been spent had the project contained 56 instead of 81 units, but on a per unit basis, costs were reduced. Cost savings are shown below.

Land Clearing and Earthwork Cost Comparison			
	<u>Demonstration</u>	<u>Comparison</u>	<u>Savings</u>
Land clearing	\$29,970	\$59,940	\$29,970
Earthwork	28,000	20,000	(8,000)
TOTALS	\$57,970	\$79,940	\$21,970
Cost Per Unit	\$ 716*	\$ 1,428**	\$ 712
*81 Units			
**56 Units			

Sanitary Sewer

Polyvinylchloride (PVC) pipe was allowed instead of the city standard vitrified clay pipe. PVC has since been approved for use throughout the city. Manhole spacing was increased

from 300 to 600 feet with cleanouts between, saving three manholes. Since tap-ins were increased from 56 to 81, total sewer costs were increased. Costs per unit, however, were decreased by \$279 as shown in the following table.

Sanitary Sewer Cost Comparison			
	<u>Demonstration</u>	<u>Comparison</u>	<u>Savings</u>
Sanitary sewer	\$75,573	\$67,872	\$(7,701)
Cost Per Unit	\$ 933*	\$ 1,212**	\$ 279
*81 Units			
**56 Units			

Water Service

PVC was allowed instead of ductile iron pipe for underground water service for the demonstration only.

Tie-ins were increased from 56 to 81, which increased total costs, but costs per unit were reduced by \$94 as shown below.

Water Service Cost Comparison			
	<u>Demonstration</u>	<u>Comparison</u>	<u>Savings</u>
Water service	\$58,077	\$45,416	\$(12,661)
Cost Per Unit	\$ 717*	\$ 811**	\$ 94
*81 Units			
**56 Units			

Electrical Service

No changes were made in electrical service and streetlight requirements.

Since 25 more units were built, cost per unit was reduced by \$193.

Electrical Service Cost Comparison			
	<u>Demonstration</u>	<u>Comparison</u>	<u>Savings</u>
Electrical service and streetlights	\$34,992	\$34,992	\$ 0
Cost Per Unit	\$ 432*	\$ 625**	\$ 193
*81 Units			
**56 Units			

Storm Water Drainage

As with sanitary sewer and water supply, PVC pipe was allowed for underground storm water drainage for the demonstration. Normally, corrugated metal pipe (CMP) is required. In addition, the developer deeded 5.8 acres to the city in lieu of paying a \$432 per unit drainage fee. The 5.8 acre parcel was not suitable for building, because it was in a flood plain and was already

included in the South Everett drainage basin plan. This dedication, therefore, resulted in a gain for both the city and the developer. Although this approach is not transferable to many sites throughout the nation, it does illustrate how rational compromises can be made to the benefit of home buyers as well as the community as a whole. Following are cost savings for storm water drainage.

Storm Water Drainage Cost Summary			
	<u>Demonstration</u>	<u>Comparison</u>	<u>Savings</u>
Storm drainage	\$57,996	\$60,912	\$ 2,916
Storm water detention fee	0	24,192	24,192
TOTALS	\$57,996	\$85,104	\$27,108
Cost Per Unit	\$ 716*	\$ 1,520**	\$ 804

*81 Units
**56 Units

Sidewalks

Sidewalks were eliminated on all 20-foot wide streets and were

required on only one side of the 24-foot wide streets. Normally, sidewalks are required on both sides of all streets. Cost savings follow.

Sidewalk Cost Summary			
	<u>Demonstration</u>	<u>Comparison</u>	<u>Savings</u>
Sidewalks	\$8,586	\$34,832	\$26,246
Cost Per Unit	\$ 106*	\$ 622**	\$ 516

*81 Units
**56 Units

Streets



Collector street at Sunridge entrance

Within the subdivision, normal width requirements are 36 feet for collector streets and 34 feet for residential streets. For the demonstration, Everett allowed reductions to 24 and 20 feet respectively. In addition, the city had previously planned a through-street, McGill Avenue, across the site. The developer surveyed abutting property owners concerning this planned street and received a

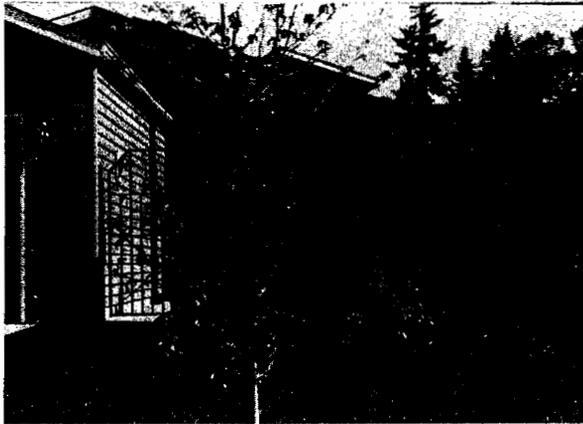
unanimous response that the street was not wanted. Therefore, the city abandoned the right-of-way. This resulted in a \$25,000 savings to the developer.

The city originally required the developer to complete Third Avenue which abuts the subdivision and provides access to the project. The builder asked for a waiver to complete this street to the entrance of his property and to pave only one-half of the street past that point, arguing that the owners of the undeveloped property across and at the end of Third Avenue were not interested in completion of the street at the time of development. Everett agreed which reduced paving costs by \$20,000.

In addition to the reduced paving requirements for Third Avenue, curbs, gutters, and sidewalks along the unpaved portion of the street were eliminated, reducing costs by over \$10,000. Following is the street cost summary.

Street Cost Summary			
	<u>Demonstration</u>	<u>Comparison</u>	<u>Savings</u>
Reduce widths from 38' to 24' and from 36' to 20'	\$ 55,660	\$ 91,530	\$35,870
Abandon McGill Avenue	0	25,000	25,000
Third Avenue extension reduction	40,000	60,000	20,000
Third Avenue frontage improvements	24,219	34,263	10,044
TOTALS	\$119,879	\$210,793	\$90,914
Cost Per Unit	\$ 1,480*	\$ 3,764**	\$ 2,284
*81 Units			
**56 Units			

Landscaping



Landscaping

The developer spent \$18,000 over and above what he would have spent on landscaping and open space improvements in order to make the subdivision more attractive and marketable. Included was an attractive permanent subdivision entrance sign. Costs follow.

Landscaping Cost Summary

	<u>Demonstration</u>	<u>Comparison</u>	<u>Savings</u>
Landscaping	\$12,000	0	\$(12,000)
Open space improvements	6,000	0	(6,000)
TOTALS	\$18,000	0	\$(18,000)
Cost Per Unit	\$ 222*	0	\$(222)

*81 Units

BUILDING DESIGN AND CONSTRUCTION

This section contains discussions of cost saving techniques in direct construction. Many of the savings result from land development

variances allowed by the city while others result from construction variances allowed for the demonstration project. The following table summarizes construction savings. More detailed discussions follow.

Construction Cost Savings		<u>Cost Savings</u>	
<u>Demonstration</u>	<u>Comparison</u>	<u>Total</u>	<u>Per Unit</u>
Reduced R.O.W. and setback requirements on all units reduced water line, sewer pipe and electrical service lengths	Normal city R.O.W. and setback requirements	\$ 20,250	\$ 250
Reduced R.O.W. and setback resulted in shortened driveways	Normal R.O.W. and setback requirements	17,820	220
Reduced overhang on zero-lot-line from 16 inches to 6 inches	Normal overhang 16 inches	5,670	70
Standard glass used on side lights next to sliding glass doors on 27 units	Safety glass normally required for side light glazing	1,620	20
Elimination of parapet firewall or roof fireproofing on zero-lot-line walls	Parapet firewall or roof fireproofing required on zero-lot-line walls	20,250	250
Reduced fencing because of zero-lot-line	Side yards on both sides	17,010	210
Old sewer connection fees - \$339/unit	New sewer connection fees - \$800/unit	37,341	461
TOTALS		\$119,961	\$1,481

Utilities

Rights-of-way were reduced from 60 feet on 38-foot wide streets and 50 feet on 36-foot wide streets to 26 feet on 24-foot wide streets and 24 feet on 20-foot wide streets. The R.O.W. reductions resulted in an average reduction of 26 feet in lengths of water, sewer, and electrical service to each home. Cost savings averaged \$250 per unit.

Driveways

Because of the R.O.W. and setback reductions, driveway lengths were reduced by about 26 feet each, saving an average of \$220 per dwelling.

Overhang

The normal roof overhang averages 16 inches. Because of the zero-lot-line configuration of the homes, overhangs on the zero-lot-lines were reduced to about 6 inches, resulting in a savings of approximately \$70 per unit.

Side Light Glazing

Side lights (glazing panels next to doors) are normally required to be made of safety glass in Everett. The rationale is that a person breaking the side light in order to reach inside to open the door is in danger of being cut with standard glass. The city agreed to waive this requirement for the demonstration project, saving \$60 for each unit having side lights. One-third of the

homes had side lights, so average savings were \$20 per unit.

Firewall

Normally, the exterior wall on zero-lot-line homes must be a two hour firewall. Roofs must be protected by a parapet wall extending 2 feet above the roof or by other methods of roof fire protection treatment. The city waived this requirement for the demonstration, resulting in a cost savings of \$250 per unit.

Fencing

The zero-lot-line configuration resulted in a reduction of fencing along the side yards. The exterior wall of one unit served as the boundary for the abutting property. Savings amounted to \$210 per dwelling.

Sewer Connection Fees

Sewer connection fees to the city of Everett were \$339 per house when the original plat for the Sunridge site was approved. The city then passed a resolution to standardize sewer connection fees for all prior recorded plats to \$800 per house. However, because of the demonstration, the cooperation with the builder, and the intent of the project, the city extended the previous \$339 fee for all prior plat approvals having financing. This saved Boyden \$461 per unit.

COST SAVING SUMMARY

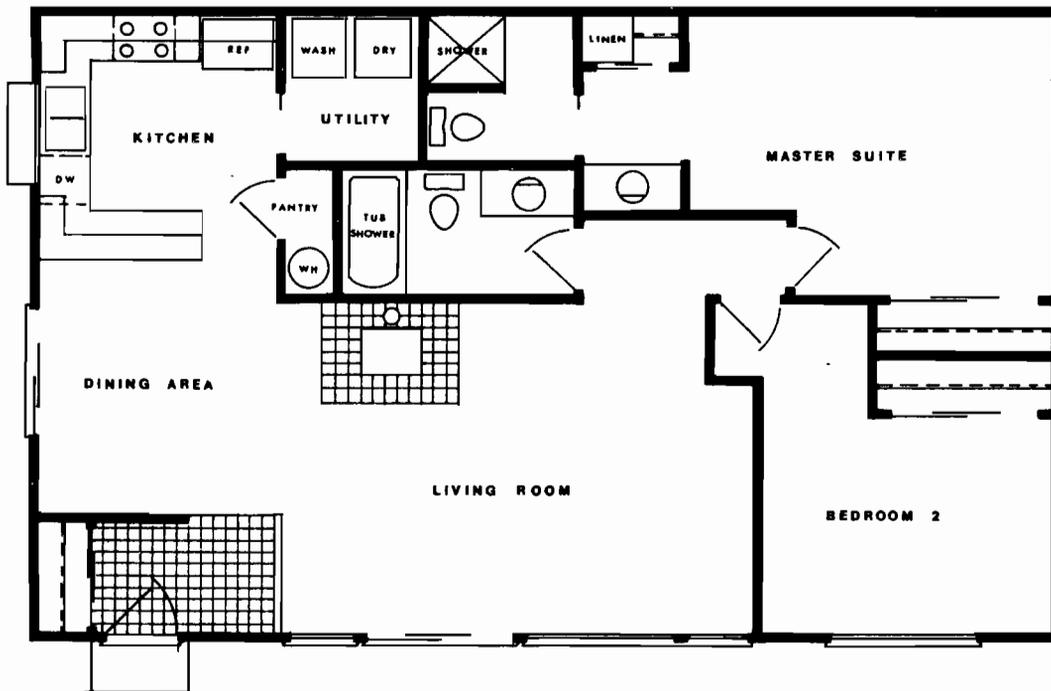
Following is a summary of cost savings in the Sunridge because of

reduced governmental regulations and builder/developer changes to typical practice in the city of Everett.

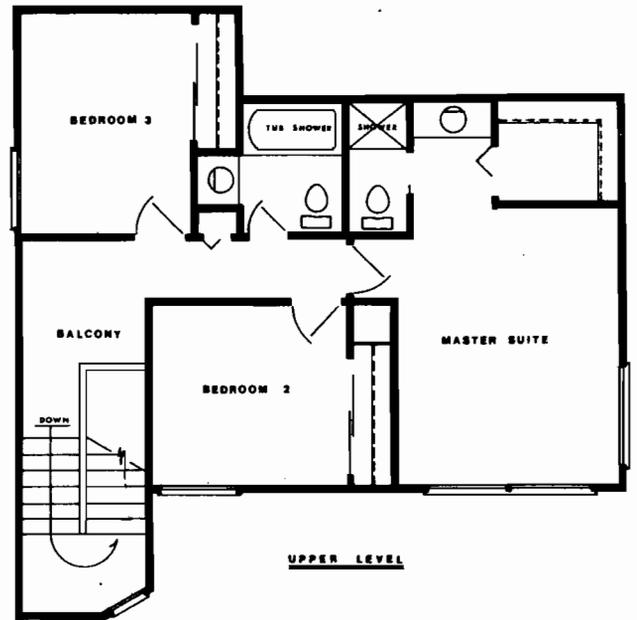
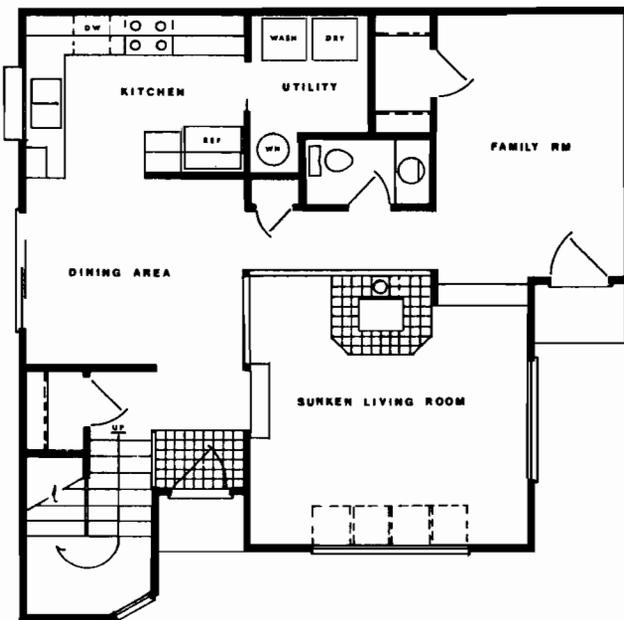
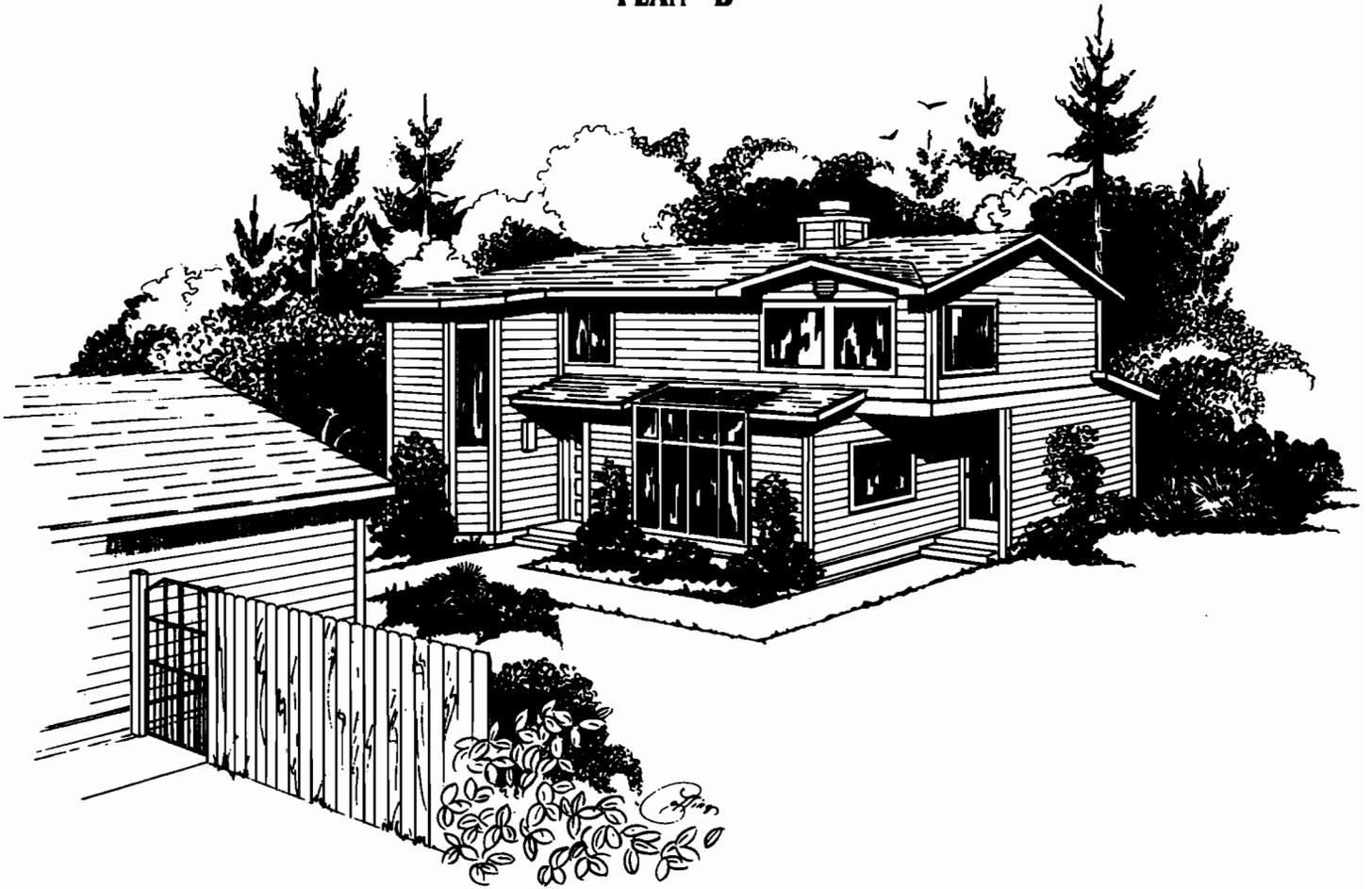
	<u>Cost Savings Per Unit</u>
Administrative and processing	\$ 1,477
Land development	7,089
Direct construction	1,481
TOTAL	\$10,047

House Plans

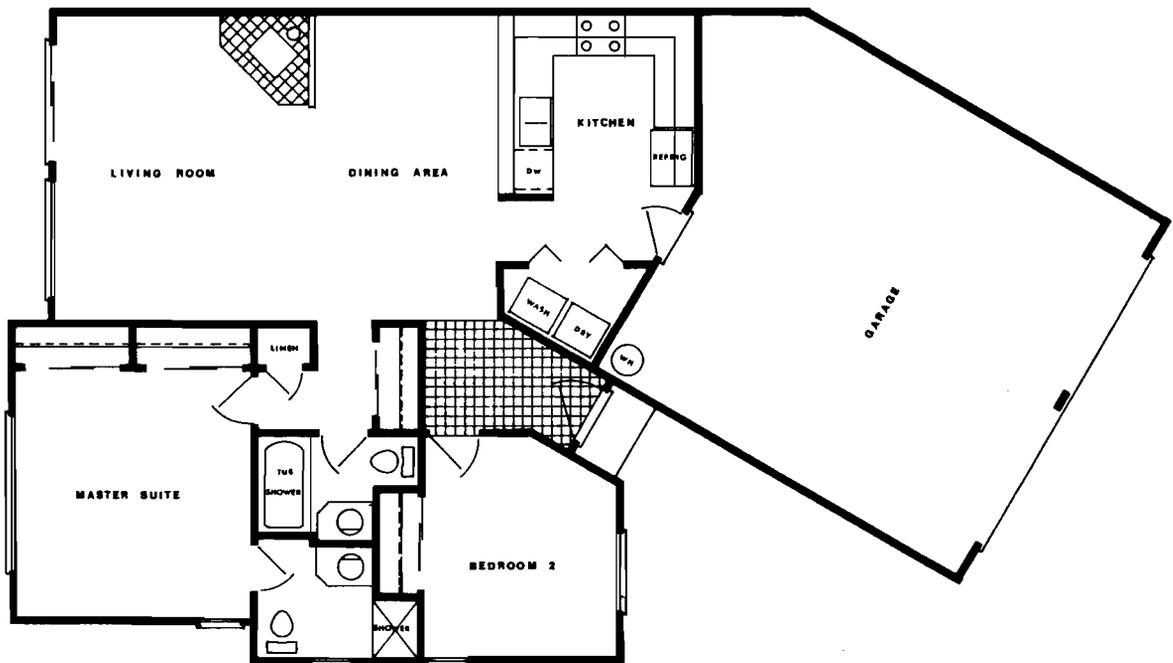
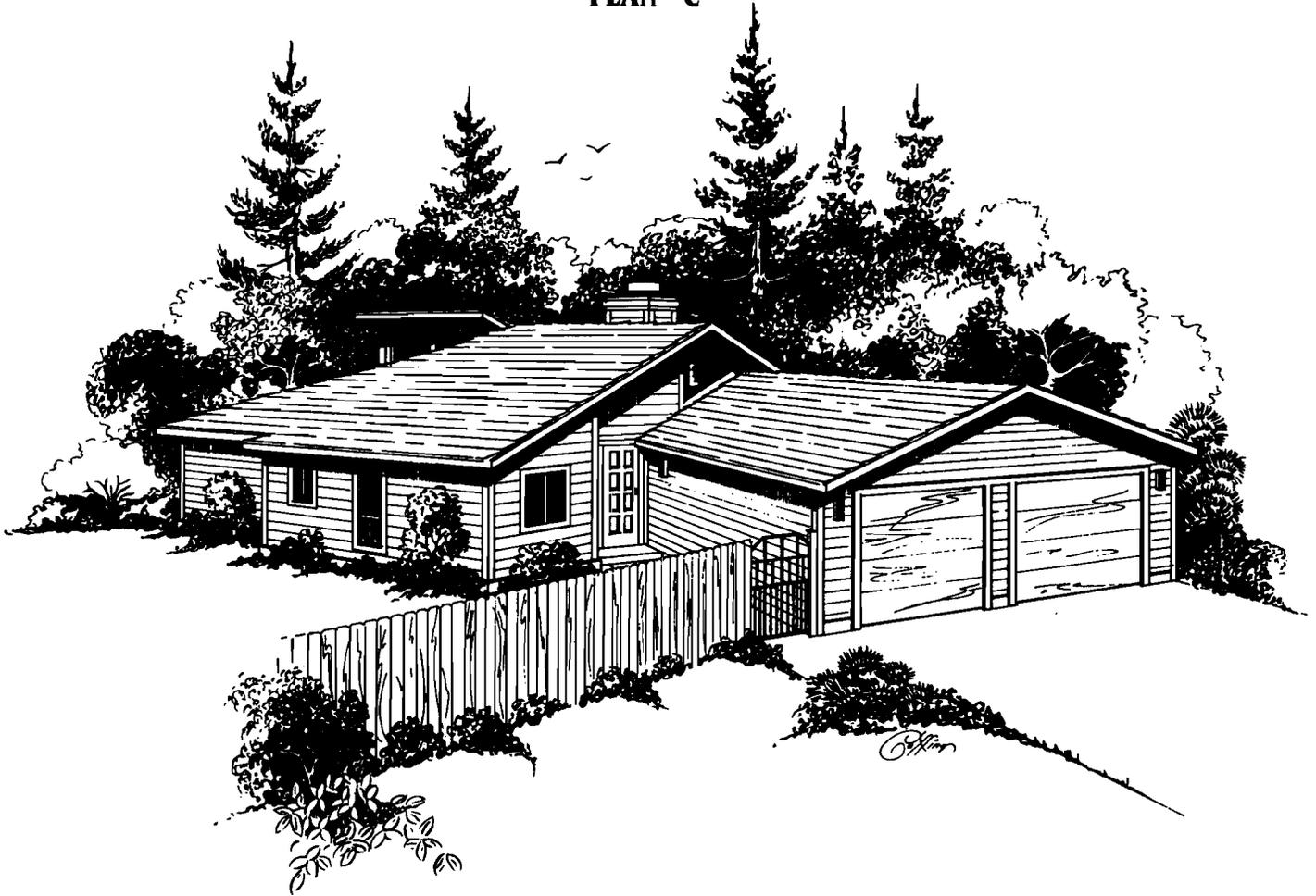
PLAN "A"



PLAN "B"



PLAN "C"



Project Schedule

Pre-Application Dates

January 1982 - Mayor William Moore expressed interest in involvement by Everett in the Affordable Housing Demonstration program

February 1982 - Snohomish County Master Builders (Falk Kelm) sent a letter to builders/developers for a participant

December 1982 - Richard Boyden and Hank Robinett of Boyden Realty, Inc., selected by city to participate

January 27, 1983 - Proponent meeting with neighborhood coordinating committee to develop a project to address concerns and insure compatibility with neighborhood objectives

February 1983 - HUD designated Boyden Realty, Inc., as builder/developer for Everett's Affordable Housing Demonstration

February 9, 1983 - City Council adopted a resolution providing for the Affordable Housing Demonstration Program

First and Second Week of March, 1983 - Proponent worked with City staff on development standards

March 3, 1983 - Proponent made second presentation to the neighborhood coordinating committee

March 24, 1983 - Proponent met with general neighborhood to explain Sunridge, address concerns, and

review the objectives developed during previous meetings which were held with the neighborhood coordinating committee

City Review Process Dates

April 6, 1983 - Project proposal submitted to the City of Everett

April 21, 1983 - Proponent meeting with general neighborhood

May 9, 1983 - Proponent meeting with neighborhood coordinating committee

May 10, 1983 - First Planning Commission Public Hearing

May 24, 1983 - Second Planning Commission Public Hearing

June 13, 1983 - City Council concurrent preliminary and final PRD and preliminary plat approval

Construction Dates

June 17, 1983 - Grading/Clearing plans for first phase approved and site preparation begins

August 22, 1983 - Utility/Road plans for first phase approved

October 13, 1983 - Building permits issued for three model units

November 17, 1983 - Final plat recording for first phase

March 16, 1984 - Open House - First Phase

Resources

The following people were instrumental in the success of this project.

Mayor William Moore, City of Everett

City Council Chairman Dale Pope, City of Everett

Larry G. Crawford, Public Services Supervisor, City of Everett

Dennis Gregoire, Principal Planner, Planning Department, City of Everett

David Koenig, Planner, Planning Department, City of Everett

Laurie A. Johnson, Director, Snohomish County Master Builders

Richard J. Boyden, Boyden Realty, Inc.

Hank Robinett, Boyden Realty, Inc.

Gary D. Wight, Planner, Wight and Hardt, Inc., Land Use Consultants

Gary Parkinson, Architect

List of Some Requested Changes

<u>Requirement</u>	<u>Builder Request</u>	<u>Allowed Changes</u>
<u>Site Development</u>		
Clear land	Burn-out	City permitted for project
Streets ROW 60' and 50' paving 38' and 36'	26' and 24' 24' and 20'	Granted Granted
Street Section 4" on 3rd	3" on 3rd	Granted
Type A vertical curb with sidewalk	Roll curb with no sidewalk except on collector	Granted
Sidewalks on both sides of street	One sidewalk on 24' street; none on 20' street	Granted
Setbacks Front 31' or 32' Rear 20' Side 5'	20' 5' and 15' 0	Allowed by PRD Allowed by PRD Allowed by PRD
Minimum Lot Size 7,000 sq. ft.	4,500 sq ft	Allowed by PRD
Drainage Maintained by project	Land deeded to city	
Sanitary Sewers Manholes	Cleanouts	Allowed for project
Storm Sewers CMP (metal)	PVC	Granted as exception
Water Supply ductile iron pipe	PVC	Granted as exception

<u>Requirement</u>	<u>Builder Request</u>	<u>Allowed Changes</u>
<u>Direct Construction</u>		
Crawl Space	AWWF	
Exterior Wall Fire wall	No fire wall	Exception
Interior Partitions 4 stud corner	2 stud with back-up clip	Exception from Boyden norm.
Framing 16" on center	24" on center	
<u>Administrative and Processing</u>		
Sequential processing of preliminary PRD, final PRD, preliminary plat	Concurrent processing	Granted
Planning Commission Hearing approval	Hearing Examiner approval	Not allowed
<u>Off-Site Development</u>		
Third Avenue	Modify plans	Granted
McGill Avenue	Eliminate	Granted
Sewer connection fee	Reduce	Granted



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