

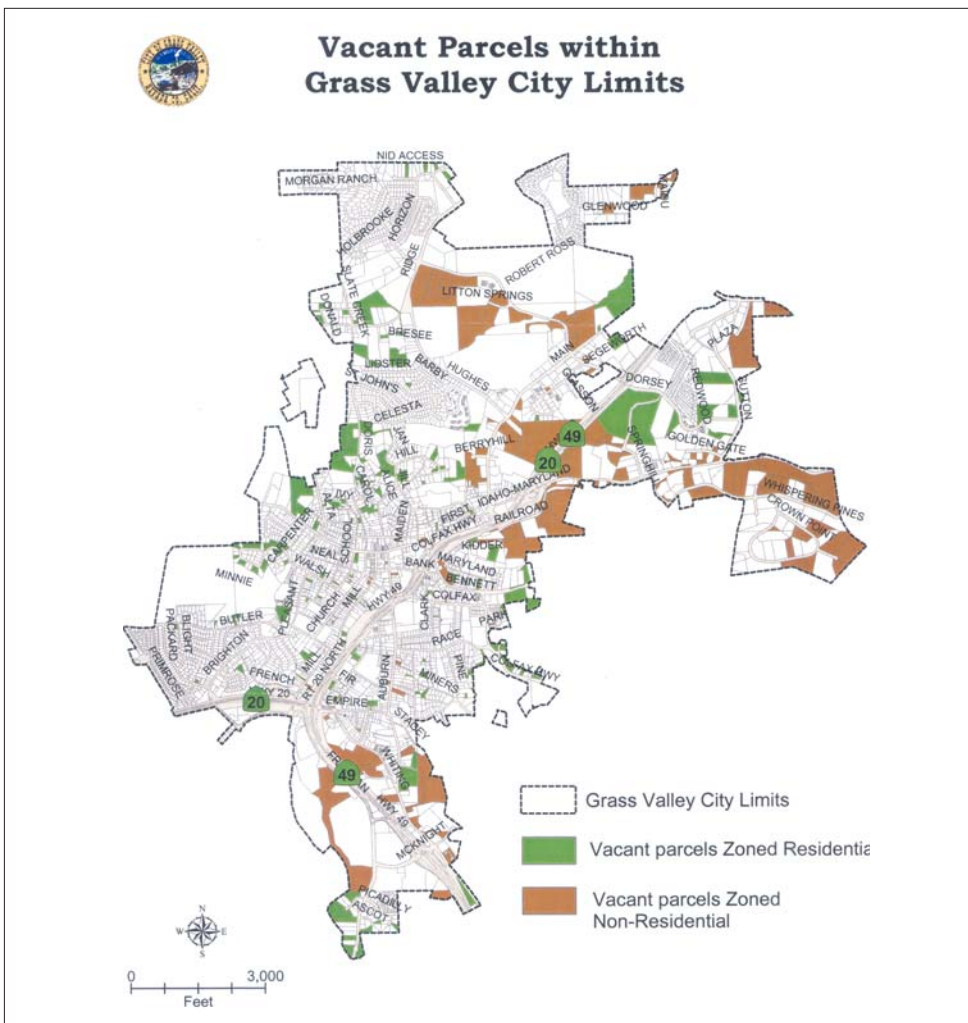
IV. ANALYSIS OF PRIORITY SITES

Analysis of Priority Sites

The intent of this section is to identify, prioritize and analyze vacant and underutilized properties that could support the development of Workforce Housing, and to develop schematic site design concepts.

A. Site Selection

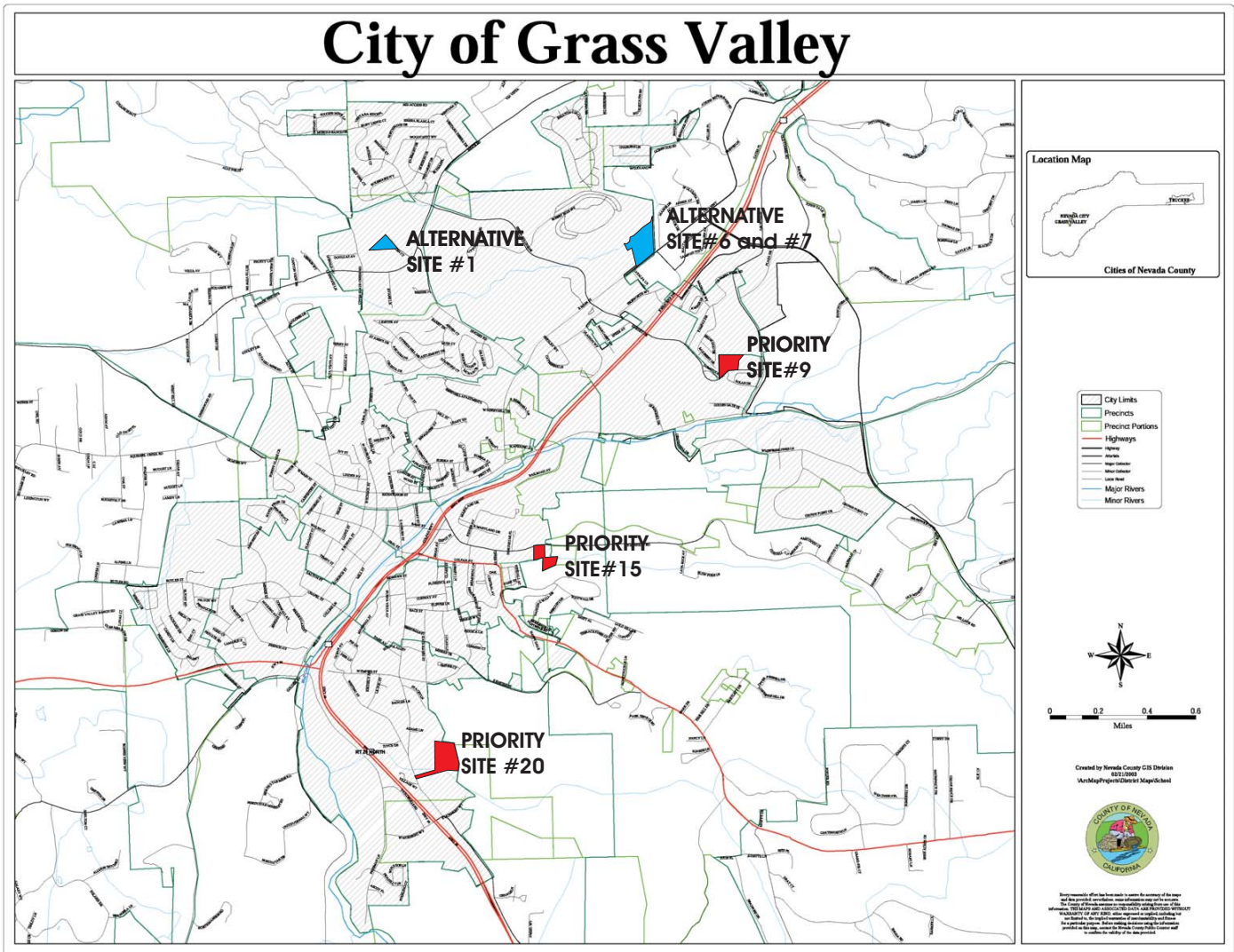
On November 13, 2003, Mogavero Notestine Associates, City Planning Staff, and the Advisory Committee toured 21 vacant sites in a variety of neighborhoods throughout Grass Valley to assess the potential opportunities for development of prototypical Workforce Housing units and identify an architectural theme for the prototypical housing units. Please see Appendix D for a complete list of the sites considered.



The team identified key components to developing any prospective site in order to grade the development opportunity the site possessed. The key development components were: location, topography, adjacent uses, size, access to services, availability, and replicability of design components.

Following the tour City Planning Staff directed Mogavero Notestine Associates to pursue three priority sites for the study and three alternative sites for review.

Accordingly, the following priority and alternate sites were selected as identified in the map below. It was determined by the team that these three priority sites offered the best opportunity to assess the challenges of developing Workforce Housing and provided the greatest opportunity to showcase prototypical Workforce Housing units:



Priority Sites:

Site #9: Dorsey Drive

APN 35-412-06

Site #15: East Bennett Street

APN 09-290-01

Site #20: South Auburn Street

APN 29-290-02

Alternate Sites:

Site #1: Deeken Court

APN 08-060-16

Site #6: East Main Street

APN 35-250-07

Site #7: East Main Street

APN 35-260-70

It should be noted that review of the sites did not include resolving possible mitigation issues associated with trees, streams, soils and hazardous materials. Additionally, the site plans identified in this document for the three priority sites are conceptual in nature and for discussion purposes only. While the City of Grass Valley can't grant entitlements, they could choose to streamline the process with the utilization of these planning concepts. Another option would be for the City to offer some incentives, like streamlining the process and reduced or waived fees (see Section V. Recommendations - Infill Strategy and Incentives) for the first three properties to come through the door in order to demonstrate that it's feasible and that there is a market for the product.

Slope, however was considered. When working on a sloped site, the design considered limiting the amount of grading required on the site by stepping up or down the slope with the improvements and housing units. Not only will this reduce the grading required, but it will also make for a more interesting place by providing further variation in the streetscape and an improved lit environment in the homes with zero lot line configurations.

The City has contacted the property owners and made them aware of this exercise. The designs are only prototypes and may be non-conforming to Grass Valley's existing development regulations. The intent is to develop preliminary designs for a Workforce Housing project and determine how it can be developed on a parcel in Grass Valley. Modifications to regulatory/development requirements may be required and the identification of those regulatory constraints will also be a part of this study.

B. Site Planning / Design

The City of Grass Valley 2020 General Plan identifies the need for a "new phase of compact development" and the promotion of the "efficient use of land and infrastructure" as key components to their continued economic development and growth. In an effort to respect these goals,



Southside Co-housing ,
Sacramento, CA
Example of a shallow setback.

the City will be updating the zoning and subdivision codes and should include in this update provisions that allow small and innovative homes and development site plans with higher allowed densities than the development patterns of the recent past.

Woonerf (Street for living): narrow streets without curbs and sidewalks, and vehicles are slowed by placing trees, planters, parking areas, and other obstacles in the street.

Table 3 illustrates the actual lot size, minimum building setbacks and lot coverages found in the three site plans developed utilizing the prototype homes. Additionally, these plans can accommodate minimums as identified in the Table. It is anticipated that the configurations will need to vary according to topography, infrastructure and unit mix. Based upon the feedback from the community through Workshop #1 and from analyzing

TABLE 3: LOT CONFIGURATIONS				
Type	Lot Size	Building Setbacks per Plan		Lot Coverage
A	1,620	side yard:	Zero lot line	89%
		side yard:	5'10"	
		front:	10'	
		back:	12'	
B	1,470	side yard:	Zero lot line	87%
		side yard:	5'	
		front:	10'	
		back:	9'6"	
C	1,378	side yard:	Zero lot line	76%
		side yard:	5'	
		front:	10'	
		back:	8'	

Grass Valley, CA
Example of narrow street with parking and sidewalk on one side.



the street image scores from the style survey, Mogavero Notestine Associates pursued narrower streets, vertical curbs and separated sidewalks (where space allows), to mimic the traditional streets of Grass Valley. In some locations no sidewalks were pursued and the shared access Woonerf principle was implemented.

Example of the Woonerf or meandering drive typical to the E. Bennett St. and S. Auburn St. site plans.



Table 4 illustrates site improvements articulated in the three designs for the priority sites. The plans are illustrative of how good design can shift away from standards and still achieve a high quality of place and quantity of homes.

TABLE 4: SITE IMPROVEMENTS			
Site Plan	Main Access	Internal Drive	Pedestrian Access
#9 Dorsey Drive	- 32' ROW - loop road	- 12' ROW	- Internal pathway
	- 20' drive / 2-6' parking	- Pervious concrete	
	- Pervious concrete		
	- Vertical curbs		
#15 E. Bennett Street	- 42' ROW - loop road	- 12' ROW	- Separated sidewalk on one side
	- 20' drive / 2-6' parking / 5' planter strip / 5' sidewalk	- Pervious concrete	- Internal pathway
	- Pervious concrete		
	- Vertical curbs		
#20 S. Auburn Street	- 32' ROW - loop road	- 12' ROW	- Internal pathway
	- 20' drive / 2-6' parking / 5' planter strip / 5' sidewalk	- Pervious concrete	
	- Pervious concrete		
	- 2 single-lane bridges		
	- Vertical curbs		



Illustration of Narrow Streets and Common Open Space.

It is important to note that all information, estimates and calculations are preliminary in nature and meant to guide feasibility discussions at the local level. Additionally, the survey information used had limited accuracy derived from aerial photographs.

C. Analysis of Site #9 - Dorsey Drive - APN 35-412-06

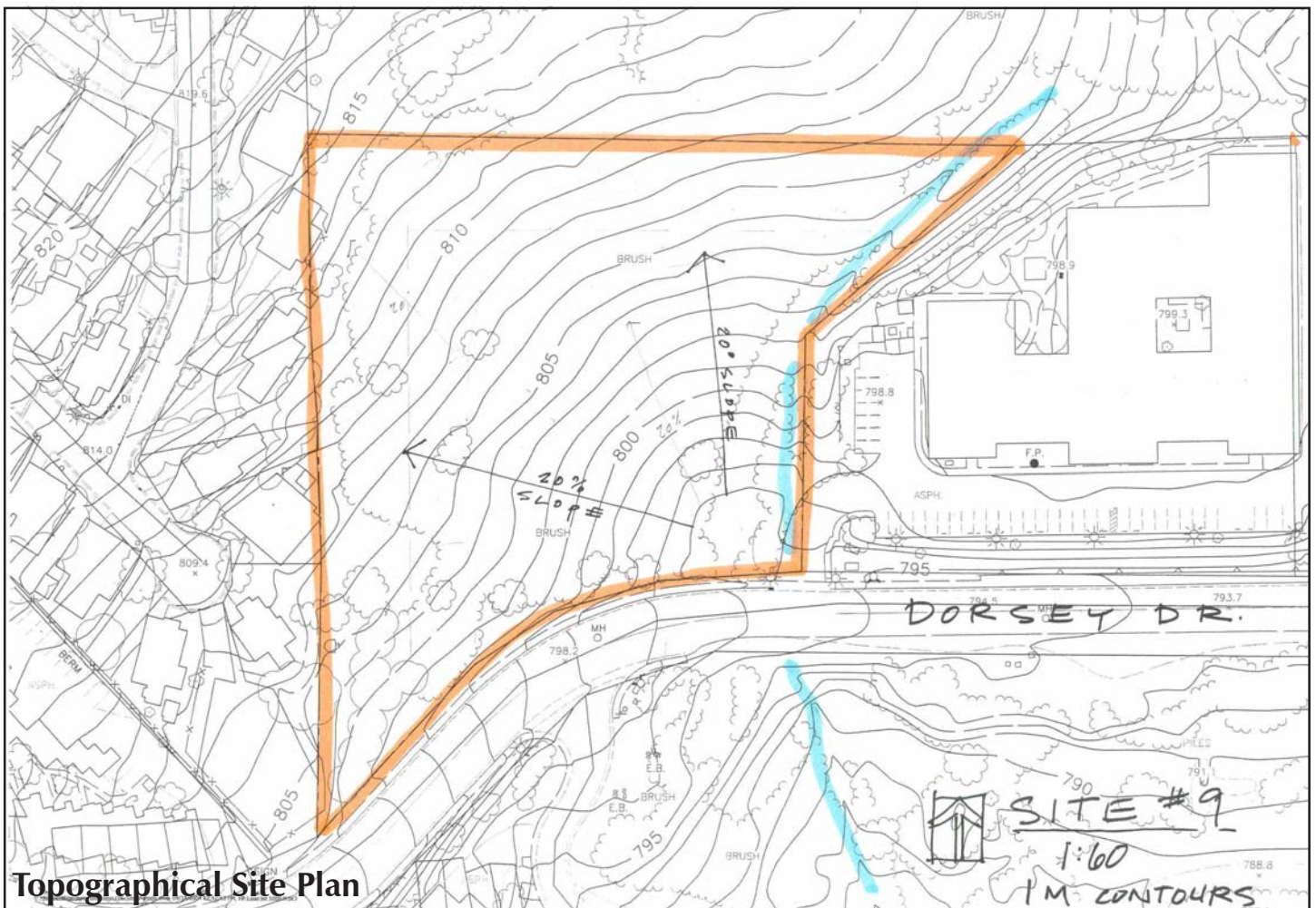
C1. Site Analysis

Site #9 is located to the northeast of Downtown one block off of Sutton Way. It encompasses 3.12 acres and is zoned R1 (1-4 units/acre) and is almost entirely on a 20% slope. The site is rocky with small scrub trees and sagebrush.

The Site abuts and can be accessed directly from Dorsey Drive. Access needs to parallel the slope's direction to avoid excessive grading. It is assumed that infrastructure is available to the site from Dorsey Drive including sewer, water, and electrical utilities with main lines running along Sutton Way. The site is within walking distance of the commercial district at Sutton Way and one block from transit.

Surroundings uses include a senior residential facility to the east, single family homes above the slope to the west, and a new multi-family apartment complex to the north also above the site.

It appears that there is a water drainage line just inside the western property boundary.



C2. Site Plan - Development Concept

This appears to be a good site to generate prototype housing and site design that would be applicable for similar sloped sites in Grass Valley.

Site Design

39 units are shown on the site plan in a mixture of housing types: 8 Type A, 16 Type B and 15 Type C with a net density of 12.5 units/acre.

The site is accessed from Dorsey Drive with a loop drive that follows the site's contours.

To allow a fire truck turn-around deep in the site, significant grading will likely be needed to construct a switchback at the top of the slope. This turn will also likely need retaining walls.

This drive is more intimate than the typical street surrounding the project and feels more like a "mews" or quiet lane. Most units are accessed from shared courtyards that are formed by the grouping of up to four homes following the slope of the site. All units would be two-story with front porches that create an intimate pedestrian-oriented place.

A small system of paths wind through the site connecting it to Dorsey Drive.



Aggie Village, Davis, CA
 Example of small units grouped
 around a common pedestrian
 access open space



Residents have either a one-car garage, carport or shared on-site parking spaces that line the drive. This configuration is respectful of the smaller cottage homes, simpler forms, and a desired de-emphasis of the car through design.

Public Improvements

- Repair of existing frontage improvements as necessary.
- Two access points off Dorsey Drive.
- Water, Sewer, Storm Drain and Electrical Utilities assumed to be in place along Dorsey Drive.



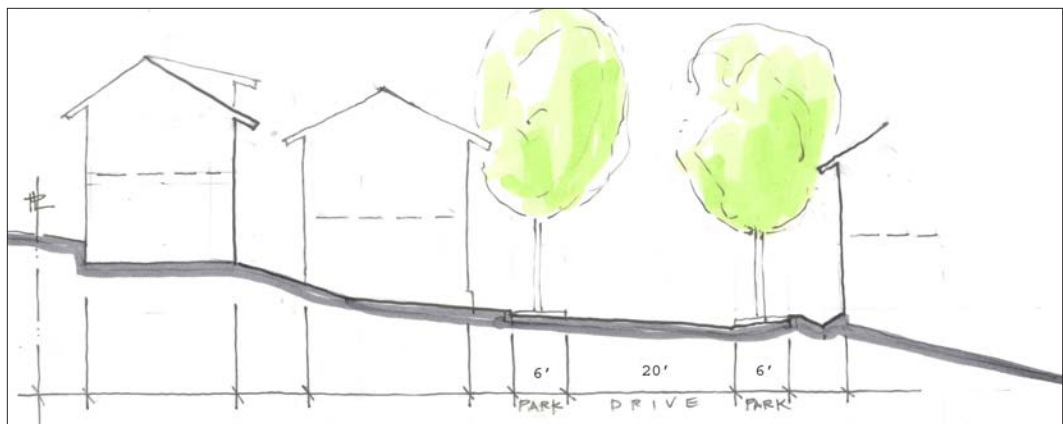
Detail of the Dorsey Drive site
 plan showing clusters of four
 units with pedestrian access and
 connecting paths

Target Homebuyer

- Smaller homes serving single member and smaller households; affordable to low- and moderate-income households.

Mews: street lined with buildings that were originally private stables but have been remodeled as dwellings.

Dorsey Drive typical internal
 street section showing 32 foot
 right of way, shallow set-backs
 and plan type B and C
 respectively stepping up the
 slope.



D. Analysis of Site #15 - East Bennett Street - APN 09-290-01

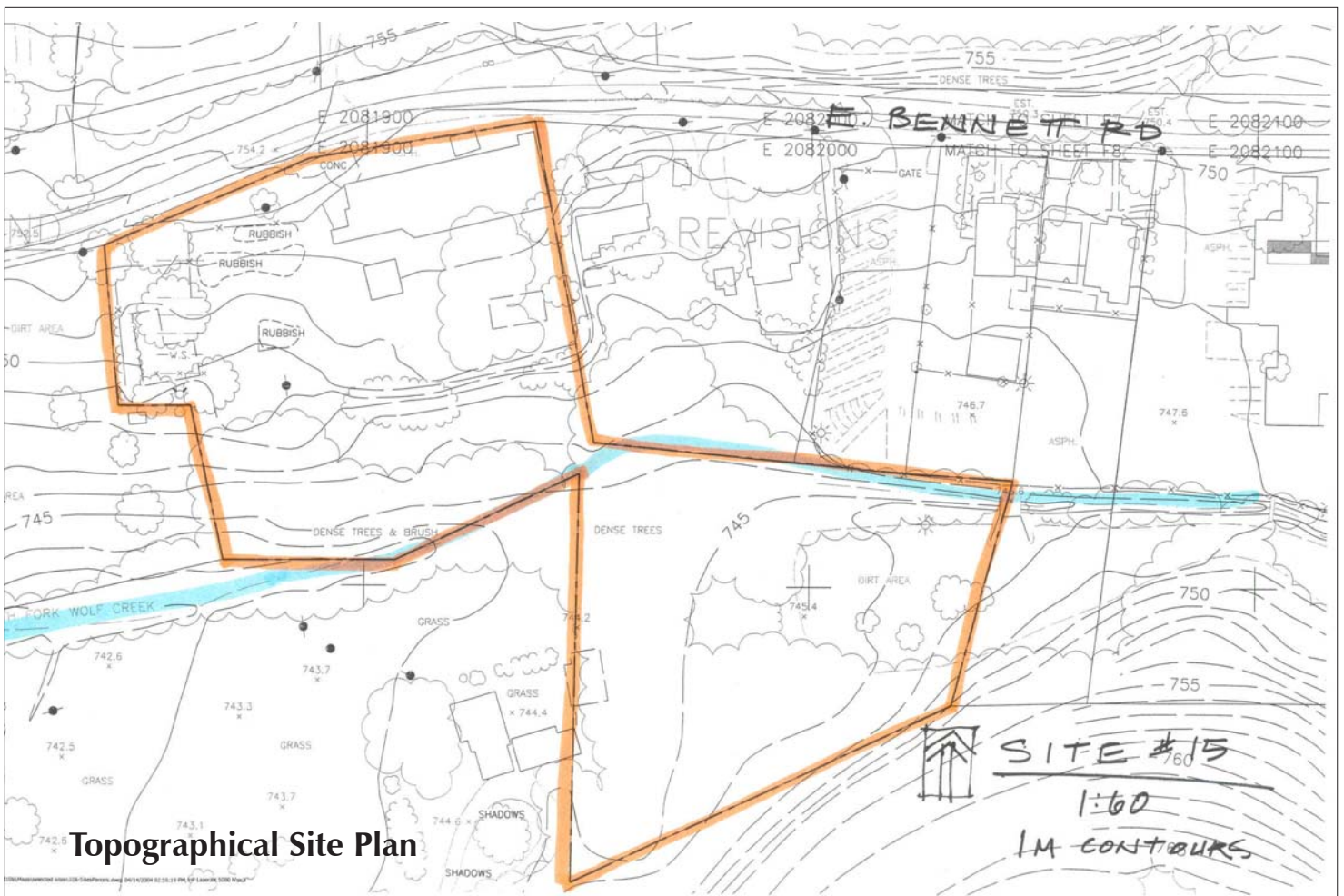
D1. Site Analysis

Site #15 is located west of Downtown on the edge of the City in an area that is dominated by multi-family apartment structures and is zoned R-3 (1-20 units/acre).

This 3.44-acre site abuts East Bennett Street which provides access to the northern half of this butterfly-shaped property. The southern half of the property is separated by the South Fork of Wolf Creek. The creek appears to be quite overgrown with invasive brush. Despite the creek’s present condition, the new design should seek to improve the riparian zone along the creek and provide better views and access for the residents, making it an important natural feature and selling point.

Additionally, if a trail system were proposed to run along Wolf Creek, this development would accommodate the trail system as an amenity along its borders. This site has a beautiful view over the valley to the south-east.

The northern half of the site has about a 12% slope below East Bennett Street. The southern half of the site is generally flat, however, it appears that this area would flood from the creek. For this reason significant fill would need to be added to this half of the



Bainbridge, WA
 Example of a narrow
 drive lane or
 Woonerf typical to
 the E. Bennett St.
 and South Auburn St.
 site plans.



site to raise the homes above the flood plain. It should be noted that there may be environmental permits and restrictions to raising the site beside a waterway. This could increase time and cost to the project and possibly render this portion of the site undevelopable.

Surrounding properties include a newer two-story apartment complex to the west, and a mobile home and an agricultural building in the neighboring property to the east. Across East Bennett Street there

is a single family home and vacant land / open space. To the west on East Bennett Street there are several apartment complexes.

It appears that the speed of cars on East Bennett Street may be an issue for left turn exits in the future. East Bennett Street is presently only two lanes. Appropriate design components should be included in the design to accommodate the impacts of East Bennett Street, such as a separated sidewalk with shade trees to provide a buffer from the street.

D2. Site Plan - Development Concept

This appears to be a good site to generate prototype housing and site design that would be applicable for similar sloped sites in Grass Valley.

Site Design

44 units shown on the site in a mixture of housing types: 36 Type A, 8 Type B and no Type C with a net density of 13 units/acre.

The site is accessed from East Bennett Street with a loop drive that follows the site's contours. This drive is more intimate than the typical street surrounding the project and feels more like a "mews" or quiet lane. A small single-lane bridge would be required to cross South Wolf Creek to access the lower portion of the property. The Creek creates a special amenity to the site that should be respected and enjoyed by the residents.



Detail of E. Bennett St. site plan.
 Small open space and homes
 fronting on the space.

All units would be two-story with front porches that create an intimate pedestrian-oriented place.

A separated sidewalk on one side of the street connects the homes to East Bennett Street. A small open space on the south side of the Creek creates a place to enjoy the beautiful views across the Creek. Another open space at the terminus of the sidewalk in the lower portion of the site



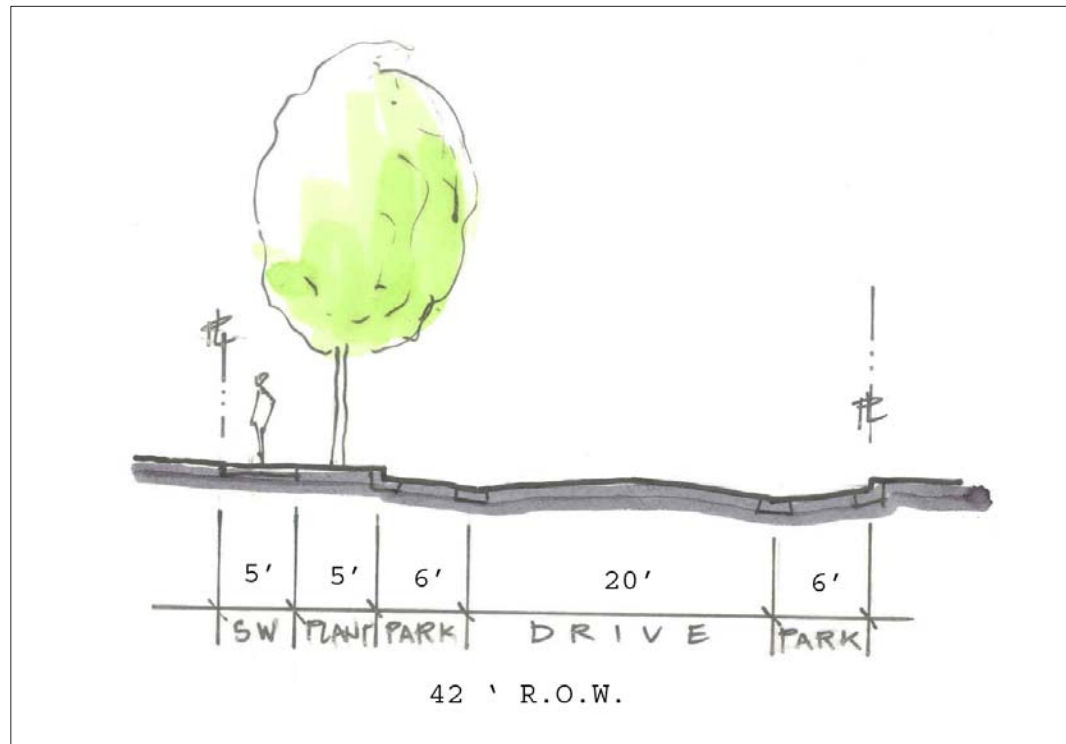
Residents have either a one-car garage, a carport, or shared on-site parking that lines the drive. This configuration is respectful of the smaller cottage homes, simpler forms, and a desired de-emphasis of car-oriented design, including a 12-foot wide drive called a Woonerf that provides access to 8 homes on the south portion of the property.



Detail of the East Bennett St. Site plan

Public Improvements

- Repair of existing frontage improvements as necessary.
- Two access points off East Bennett Street.
- Water, Sewer, Storm Drain and Electrical Utilities assumed to be in place along East Bennett Street. May need to be extended or updated to accommodate this development site.
- Bridge over South Wolf Creek



Target Homebuyer

- Smaller homes serving single member and smaller households; Affordable to low and moderate-income households.

E. Analysis of Site #20 - South Auburn Street - APN 29-290-02

E1. Site Analysis

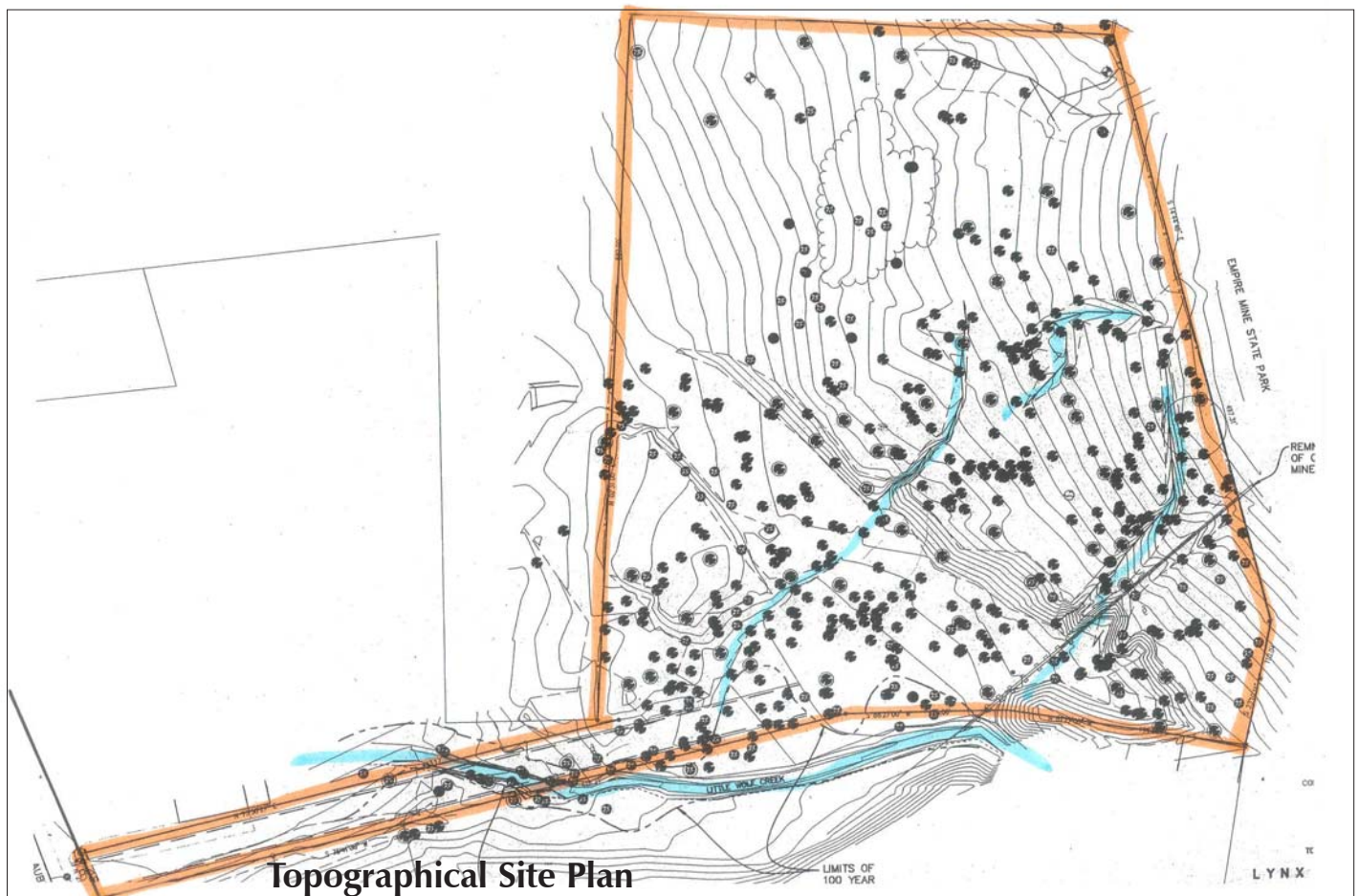
This 7-acre site is located 150 feet to the northeast of South Auburn Street and is zoned M1 (Light Industrial - can be multi-family residential with a use-permit 1-20 units / acre or higher).

A long panhandle attaches the bulk of the land to South Auburn Street. Little Wolf Creek crosses the panhandle approximately 120 feet from South Auburn Street.

The site backs up to the Empire Mine State Park, a meaningful amenity for future residents. The site is also covered with mature conifer trees, many of which would need to be removed for construction.

Other adjacent uses include light commercial uses to the west. The property to the south is vacant.

This site has significant grading issues. The main area where building appears to be possible is a relatively uniform 10.5% grade. However, to get to this area, a slope of 40% must be negotiated, which increases cost and provides challenges to make access work.



Remnants of an old pipeline from the Empire State Mine cuts across the southeast part of the property, which might be considered historic. It is not clear what the pipeline carried, or if there were other historic structures on the site.

Though this is the largest site being examined, there appear to be significant site constraints that render it costly to develop, such as the 150 foot drive and 2 bridges. Furthermore, natural obstacles to the southeast will make this area difficult to build on, rendering a significant portion of the site suitable only for open space while reducing the number of units to fund the improvements.

E2. Site Plan - Development Concept

This appears to be a good site to generate prototype housing and site design that would be applicable for other complex and sloped sites in Grass Valley.

Site Design

38 units are shown on the site in a mixture of housing types: 29 Type A, 9 Type B and no Type C with a net density of 5.4 units/acre. The density is dramatically reduced by the large undevelopable portion of the site that has very steep slopes. This area is a site amenity in its natural state.

The site is accessed from South Auburn Street along a long drive and one-lane bridge over Little Wolf Creek. A loop drive then winds into the site following the site’s natural



contours. This drive is more intimate than the typical street surrounding the project and feels more like a “mews” or quiet lane.

All units would be two-story with front porches that create an intimate pedestrian oriented place. Housing courts with Unit Type A dominate the site. These courts share a 12 foot wide private drive. Residents have either a one-car garage or carport or shared on-site parking spaces that line the drive. This configuration is respectful of the smaller cottage homes, simpler forms, and desired de-emphasis of car-oriented design.



Example of rural trail system typical of the S. Auburn St. site plan.

A small system of paths wind through the site connecting it to the natural area and eventually to South Auburn Street.

Public Improvements

- Repair of existing frontage improvements as necessary.
- Major access off of South Auburn Street.
- Water, Sewer, Storm Drain and Electrical Utilities assumed to be in place along South Auburn Street. Services will need to be extended along the 150' access drive to accommodate this development site.
- Two bridges

Target Homebuyer

- Smaller homes serving single member and small households; affordable to low- and moderate-income households.



Typical S. Auburn St. internal street section showing a 32 foot right of way, parking on both sides of the drive, and shallow setbacks.

F. Development Feasibility

Proforma Analysis

The financial analysis of the three sites designed with prototypical Workforce Housing plans identifies a revenue gap for the South Auburn Street site and revenue excess for Dorsey Drive and East Bennett Street. The following Table 6 identifies the major budget components.

TABLE 5: DEVELOPMENT FEASIBILITY SUMMARY

Site	Number of Units (80%/120%)	Development Cost	Revenue	(Gap)/Excess
Dorsey Drive	39 (19/20)	\$8,730,772	\$9,301,000	\$570,228
East Bennett Street	44 (22/22)	\$10,970,151	\$11,390,000	\$419,849
South Auburn Street	38 (18/20)	\$10,731,494	\$9,895,000	(\$836,494)

The financial analysis for the South Auburn Street site indicates a development revenue gap of \$836,494 primarily due to the high land cost in relation to the suitable building area. At this stage of the development review, this site could not proceed without funding from a public source for development.

It is important to note that the site has major constraints limiting the density (5.4 units/net acre) when using a single-family detached product. The revenue gap could be reduced by using an attached townhome configuration for the majority of the units. By way of analysis, an increase in units from 38 to 44 has the net effect in the budget of reducing the gap to within the \$500,000 or less range. For a multiple unit subdivision this gap can be managed at this early review stage through site plan modifications, value engineering, adding market-rate units to the mix, and providing mortgage assistance to the homebuyers.

Successful Plan Characteristics

The following conclusions are drawn based on development of the three priority sites with prototypical floor plans identified in Section III Architectural Themes.

Infill sites for workforce housing should be adjacent to existing services. Sites like the South Auburn Street site are too far from existing services and require costly infrastructure improvements in order to develop the site.

Topography can be a major cost concern, but it is mitigated by adding density, building narrow roads, incorporating a mix of unit sizes, and by developing prototypes that allow a variety of lot configurations (especially that can reduce on-site parking demands) as indicated on the Dorsey Drive Site Plan “courtyard” configurations.

Density should be a minimum of 10 units per net acre given the nature of site improvements required by site topography. The South Auburn Street plan has significant

constraints due to a very steep slope that bisects the property and relegates a large portion of the site not feasible for prototype home construction. The shared open space / common area is greatly increased and a more compact townhome development should be considered to maintain a yield that will support the infrastructure costs more evenly. Dorsey Drive and East Bennett Street, while having slopes to contend with, achieve a net density in excess of 10 units per acre.

Minimum **parking** requirements are typically a major site planning burden. Regulatory requirements often have on-site per unit parking ratios that may not be consistent with the demands of the occupant and allow no flexibility to locate on-street resident parking. The Prototype C Plan does not include any attached covered parking area, while Prototype Plans A and B both have one garage or carport respectively. Each of the site plans is able to accommodate the minimum parking ratios with shared street parking opportunities. This balance of on and off-site parking reduces the net paved area and encourages alternative modes of transportation.

Site planning isn't only about locating streets. However, in the examples of the priority sites, the location of the streets was the critical component due to topography and access opportunities and requirements. Once the location of the streets was identified, the incorporation of flexible prototype plans within the street pattern was achieved. Well thought out, quality site planning can create neighborhoods that are compact, cohesive, offer a variety of housing options for a variety of homebuyers, and provide excellent opportunities to develop Workforce Housing.