

Specific Plan 88-01

HEARTLAND VILLAGE

Hemet, California

Adopted by Ordinance 1274 - 4/12/88

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Heartland Village Specific Plan

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Originally Approved by
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Amended by Ord. 1605 - 8/13/99

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I. INTRODUCTION

**Table 1
1996 Heartland Village
Land Use Summary**

Use	Acreage	Dwelling Units	Percentage
Open Space, Recreation and Golf	352.7		53.0%
Residential	294.8		44.3%
Commercial	11.5		1.7%
Project Administration and Golf Maintenance	3.0		0.5%
RV Storage	3.0		0.5%
Total	665.0	2,183	100.0%

This proposed amendment to the January 1996 Specific Plan is intended to further refine the land plan to reflect current market conditions and homebuyer preferences and to substantially reduce overall density. The following table compares the land uses proposed in this amendment to the January 1996 Specific Plan.

**Table 2
Heartland Village
Land Use Comparison
Proposed Plan to January 1996 Plan**

Use	Proposed Plan Acreage	1/96 Plan Acreage	Proposed Plan Dwelling Units	1/96 Dwelling Units	Proposed Plan %	1/96 Plan %
Open Space, Recreation and Golf	355.6*	352.7			53.5%	53.0%
Residential	304.7	294.8	1,775	2,183	45.8%	44.3%
Commercial		11.5				1.7%
RV Storage/Project Administration	4.7				0.7%	
RV Storage		3.0				0.5%
Project Administration and Golf Maintenance		3.0				0.5%
Total	665.0	665.0	1,775	2,183	100.0%	100.0%

* This is comprised of: (i) social country club, 6.2 acres; (ii) public park, 2.2 acres; (iii) clubhouse/maintenance, 5.9 acres; (iv) driving range, 14.0 acres; (v) landscape, 25.5 acres; and (vi) golf course/open space, 301.8 acres.

As you can see from Table 2, there has been a reduction in the number of dwelling units, elimination of the commercial, a slight increase in the overall golf/open space acreage and slight acreage adjustments in other categories.

Table 3 below summarizes the land use and product types proposed in the amendment to the 1996 Specific Plan. Due to the redesign of the golf course from an "oval pattern" to a "figure eight," i.e., a circular land pattern of fairway versus a double circular land pattern of fairways, a comparison of planning areas of the 1996 Specific Plan to this proposed amendment would not be helpful.

Table 3
1999 Heartland Village Specific Plan
Land Use and Product Types

Planning Area	Acreage	Product	Density	Total D.U.
1	6.0	Single-family/Models	5.2	31
2	19.7	Single-family/Villas	8.4	166*
3A	6.3	Multi-family "Weekender"	14.0	88
3B	14.8	Single-family Detached	7.4	109
4	23.9	Single-family/Villas	6.3	151**
5	10.0	Villas	9.5	95
6	30.0	Single-family Detached	5.9	178
7	16.9	Single-family Detached	5.2	88
8	16.0	Single-family Detached	4.9	79
9	53.3	Single-family Detached	6.3	338
10	38.3	Single-family Detached	6.1	232
11	19.8	Single-family Detached	5.5	108
12	14.9	Villas	2.4	35
13	17.5	Single-family Detached	4.4	77
Subtotal	287.4		6.2	1,775
Social Country Club	6.2			
Public Park	2.2			
Clubhouse/Maint.	5.9			
Public Use Site	1.0			
Driving Range	14.0			
Landscape	25.5			
RV Storage/ Project Admin.	3.7			
Golf/OS	301.8			
Private Streets	10.3			
Public Street	1.4			
Detention Basin	5.6			
Total	665.0			1,775

*Comprised of 75 Villas and 91 single-family units.

**Comprised of 60 Villas and 91 single-family units.

B. Project Objectives

Updating of the residential land plan and golf course routing in 1999 embraces the previous expressed Specific Plan ideology and enhances the overall goals to include:

- Create a high-quality master-planned gated retirement community and a non-gated, non-age-restricted neighborhood that will provide an aesthetically pleasing westerly entrance to the City of Hemet.
- Increase the level of amenity to create an outstanding community which minimizes the need for external vehicular trips with on-site administration and maintenance facilities, park and community clubhouse.
- Convert the golf course to a semi-private championship course affording expanded public play and a "returning nines" design.
- Focus the design of the community to the active and passive needs of retirees.
- Develop a product mixture conducive for the present and anticipated market conditions, including a non-age-restricted housing component.
- Substantially reduce overall project density and increase lot sizes.
- Elimination of the commercial site to reduce traffic flows and other impacts.
- Enhance the local tax base of the City of Hemet.
- Minimize public facility requirements through the development of a project oriented to seniors.
- Provision of on-site storage area for recreational vehicles.

Based upon the above objectives, the project design has been revised as fully described within this Specific Plan document.

C. Document Purpose

This document has been prepared for the purpose of delineating a multiple-use land development plan for a large parcel of land in the City of Hemet.

The purpose of the Specific Plan is to provide a set of master plans, guidelines, regulations and implementation programs for guiding and ensuring the orderly development of the project.

The Heartland Village Specific Plan reflects a master-planned community designed in response to market development trends in and around the City of Hemet. Utilizing the Specific Plan approach, the project will be developed in a comprehensive manner consistent with the natural characteristics of the site while providing an appropriate level of infrastructure and amenities.

Furthermore, it is the intent that the Heartland Village Specific Plan be dynamic, and not a fixed or inflexible document, allowing for modifications as development circumstances may require.

Authority for the preparation of Specific Plans exists under California Government Code Sections 65450 through 65457 and under the provision of the Hemet Municipal Code. It is the intention of this document to amend, in its entirety, the previously approved Specific Plan, which is currently in effect for the property. The Specific Plan approach to developing the subject site is the preferred planning mechanism. Through the Specific Plan process, the project will develop in a comprehensive manner that is consistent with the site's unique natural character while providing an appropriate level of infrastructure and open space considerations tied to regional systems.

II. SUMMARY

II. SUMMARY

A. Location and Site Description

The Heartland Village Specific Plan is located in the west-central portion of the City of Hemet, California, in Riverside County (See Regional Location, Exhibit No. 1). State Highway 74/79, also called Florida Avenue, forms the southern project boundary while California Avenue generally forms the project site's eastern boundary. State Highway 74 connects with Interstate 215 approximately 12 miles to the west of the project site. State Highway 79 also connects to Interstate 215 approximately 15 miles to the southwest of the project site within the City of Temecula. Highway 79 also connects with Interstate 10 located approximately 18 miles to the northeast of the project site. Both Interstate 15 and Interstate 10 connect the site and the City of Hemet as a whole to the large urban areas associated with the Cities of Riverside, Los Angeles and San Diego, located to the south and west of the project site. These Interstates also connect with the Cities of San Bernardino, Barstow and Palm Springs and provide regional connections to the States of Nevada and Arizona.

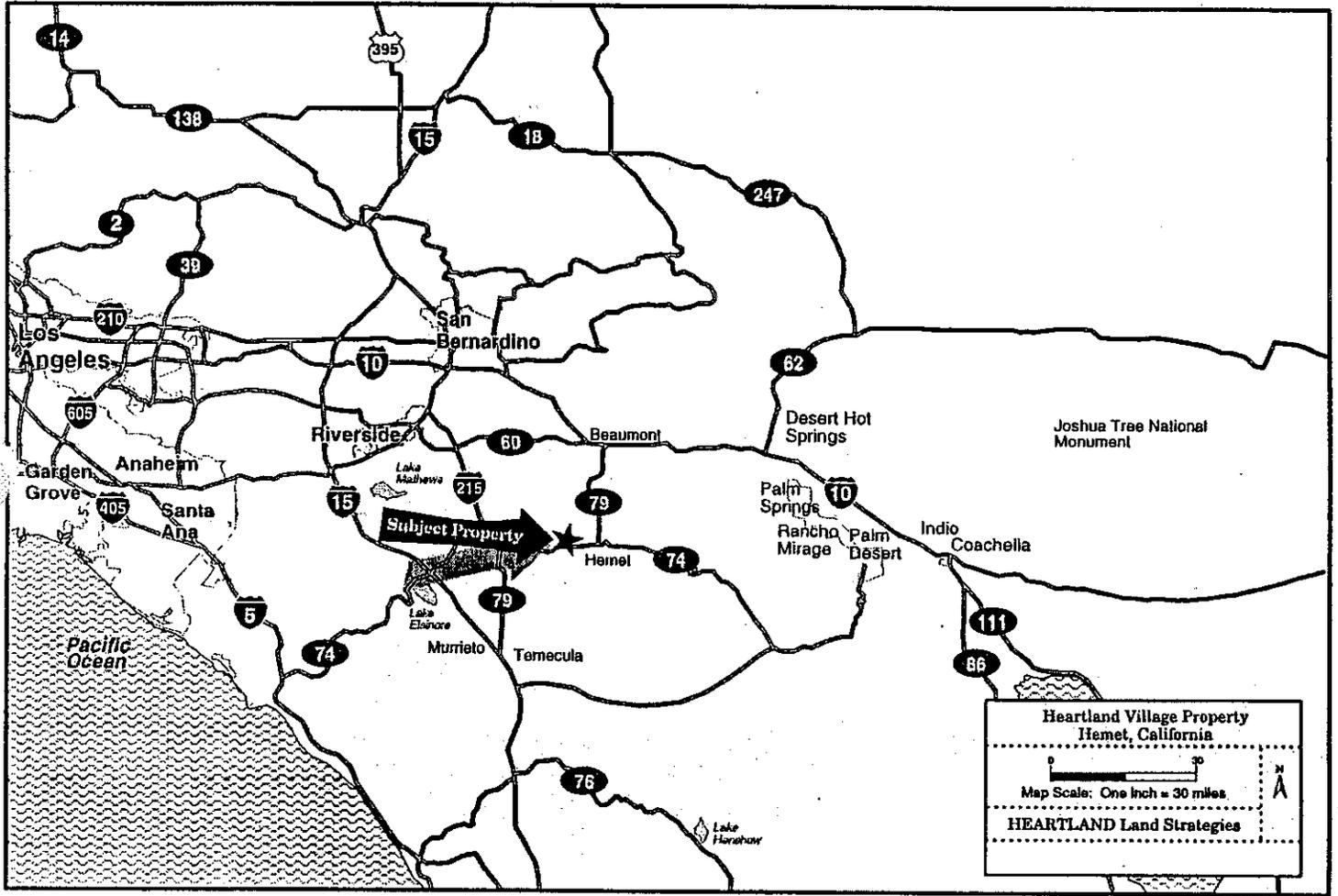
The project area encompasses approximately 665 acres of land which is very flat over the southeastern two-thirds of the property. This area has been under cultivation primarily with potatoes. A broad wash traverses this area from north to south. The northwestern one-third of the site is dominated by a portion of the rocky Lakeview Mountains which rise from the flat valley areas of the project site to an elevation of over 440 feet.

Rural residential uses dominate areas adjacent to the northern project boundary while vacant and fallow agriculture fields which are converting to urban and suburban uses dominate the area to the south, east and west of the project site. Uses on Florida Avenue to the east of the site are commercial in nature.

B. Land Use Plan

The development plan for the Heartland Village site involves a refinement of prior plans based upon present and anticipated market conditions and based upon a series of objectives which are listed in the ensuing section of this document.

The land use plan, which is fully described and illustrated in Chapter III, provides for a mixed-use residential community oriented toward active adults with a strong focus on recreational activities. The 665-acre site is planned to accommodate 1,775 dwelling units, with



Regional Location

Exhibit No. 1

Heartland Village Property
 Hemet, California

Map Scale: One Inch = 30 miles

HEARTLAND Land Strategies

products ranging from multi-family/weekender product and Villas to single-family detached homes.

The recreational elements consist of an 18-hole championship golf course offering golf memberships to community residents and daily fee play to the public, a golf club facility, a driving range, a private Social Country Club facility available to residents of the age-restricted portion of the project and a 2.2-acre public park in the non-age-restricted residential enclave. Also encompassed in the Plan are a proposed location for project administration offices, recreation vehicle parking and potentially a public use site.

Golf course, driving range, recreational and open spaces comprise a total of 355.6 acres, or roughly 53.5 percent of the total property, thus providing a low-density and open-space-oriented community, designed to cater to active retirees and families. Inasmuch as the site comprises the westerly entry to the City of Hemet, care has been taken to create provisions for a high-quality aesthetic image for the project and the community. The Florida Avenue frontage has been designed with significant visual exposure to the golf course, and an enhanced landscape and architectural entry feature at the project's main entry.

The Specific Plan contains detailed master plans for all infrastructure and public facilities, and provides a community design manual which sets forth a quality landscape and architectural ethic for the project.

C. Project Objectives

Changing market conditions have required the property owner to modify development strategies for the subject site.

The ideology involved in the revised plan is best characterized by the following objectives:

- Increase the level of amenity to create an outstanding community which minimizes the need for external vehicular trips.
- Redesign the golf course to incorporate a "returning nines" configuration and allow for expanded public play.
- Focus the design of the community to the needs of younger, active adults 55 years or older (or such lower age as may be permitted under state and federal law).
- Create a high-quality visual entrance to the City of Hemet.

- Develop a product mixture conducive for the current and projected market environment, including a non-age-restricted housing product component.
- Substantially reduce overall project density and increase lot sizes.
- Remove as much housing as practical from the fuel modification area.

Based upon the above objectives, the project design has been revised as fully described within this Specific Plan document.

From a physical design perspective, it is intended that the first element visible to the eastbound motorist upon entering Hemet is a large window of golf course. Thus, the frontage along Highway 74 consists of portions of two golf holes.

In addition to the visual statement of "golf" upon entering the community, the proposed project entry and landscape buffer introduce high-quality architectural and landscape elements to a major thoroughfare frontage.

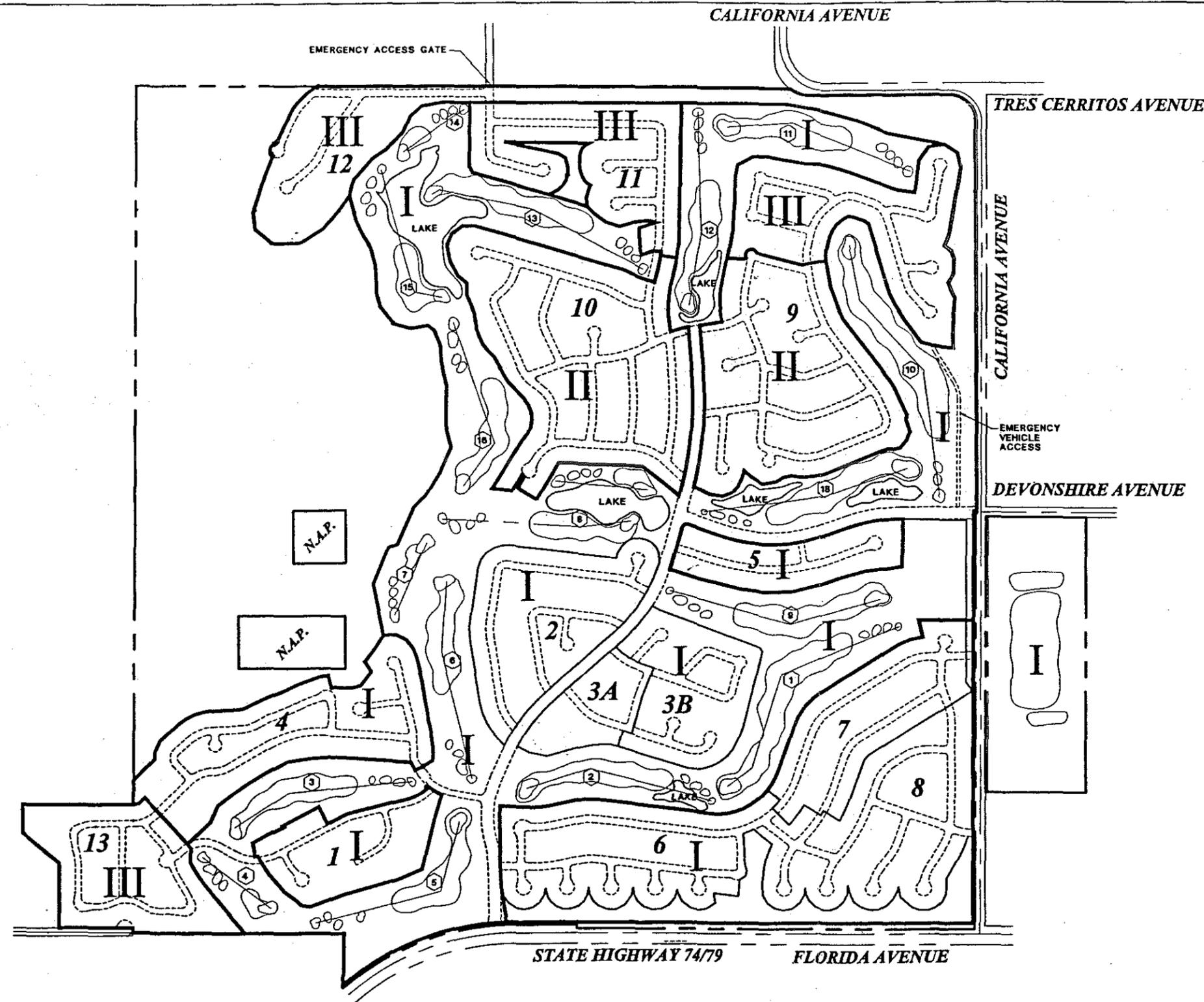
D. Project Phasing

Specific Plan phasing will guide the timing and sequencing of development in accordance with grading, infrastructure requirements and infrastructure availability.

The thrust of the phasing program is to provide flexibility in order to deal effectively with dynamic market trends and conditions. The three master phases identified on the Master Phasing Plan, Exhibit No. 2, incorporate, in total or in part, several individual planning areas. Each phase corresponds to areas that can stand alone in terms of access and infrastructure.

Development within each phase is infrastructure dependent, thus development within phases can occur concurrently or independently, providing that adequate consideration for infrastructure has been given.

Development of Heartland Village is proposed in phases utilizing existing and master-planned Eastern Municipal Water District (EMWD) water, sewer and raw water facilities. EMWD is the local water and sewer purveyor. Mitigation and connection fees, and a 1915 Act assessment district or similar financing structure may be implemented to fund proposed facilities, as may be deemed appropriate by EMWD or the City, as applicable. EMWD has no plans for a



Heartland Village Specific Plan Hemet, California

NOTE: TWO MEANS OF ACCESS TO ANY PHASE OF DEVELOPMENT SHALL BE PROVIDED TO THE SATISFACTION OF THE FIRE CHIEF

Master Phasing Plan

Summary

Phase	PA	DU
	1	31
I	2	166
	3A	88
	3B	109
	4	151
	5	95
	6	178
	7	88
	8	79
Subtotal		985
II	9	211
	10	232
Subtotal		443
III	11	127
	12	108
	13	35
Subtotal		347
TOTAL		1,775

Heartland Village Property
Hemet, California

Map Scale

HEARTLAND Land Strategies 2/99

Exhibit No. 2

reclaimed wastewater supply system to be extended to the neighborhood of the Heartland Village project. The project will generate EMWD mitigation and connection fees of which a portion may be proposed for assessment district funding.

Mitigation and connection fees may be credited to the extent master-planned facilities are constructed through landowner or tax exempt public financing. Definitive procedures for mitigation and connection fee credits will be established pursuant to a reimbursement agreement between the landowner and EMWD.

III. SPECIFIC PLAN

This chapter contains the principal elements which will define and guide development of the Heartland Village Specific Plan. The following discussion has been structured to achieve a logical progression, moving from broad overviews of the project to more specific and detailed descriptions of its various land use and infrastructure components. In addition to these technical plan elements, this chapter incorporates Architectural and Landscape Guidelines as well as the project's Implementation Program which sets forth standards for Administrative and Discretionary approvals required before project construction can occur.

A. Introduction

This section provides a description of the planning methodology and marketing objectives which guided the preparation of the Specific Plan.

1. Plan Methodology

This section on plan methodology deals with the techniques which were employed to shape the design of the specific land use plan. The Heartland Village Specific Plan was developed by first inventorying existing environmental, physical and social assets in order to protect and enhance those assets. City of Hemet General Plan and engineering requirements were then synthesized to effect the design of a golf-oriented retirement community which will be an asset to the City of Hemet and future residents. This methodology is characterized in the following paragraphs.

- **General Plan Implementation**

In preparing the Specific Plan document, a review and analysis of the Hemet General Plan was performed. The Specific Plan has been designed in accordance with applicable General Plan goals and programs, as discussed below.

General Plan Goal:

"An emphasis in the City of Hemet's traditional primary role as a community of choice for seasonal and retirement living and as a subregional commercial and government center." (Page II-A-1, City of Hemet General Plan)

Implementation:

The Specific Plan is designed as a mixed-use community emphasizing an active, quality retirement village, but also including a quality non-age-restricted component located along the site's southern boundary. The character and level of amenity provided in the project will be instrumental in aiding the City of Hemet in achieving the goals of "a community of choice for seasonal and retirement living."

General Plan Goal:

"Physical development and environmental management whose visual traits emphasize Hemet's unique identity and character." (Page II-A-3, City of Hemet General Plan)

Implementation:

Care has been taken in the design of the Specific Plan to ensure that the project represents a positive and pleasing visual character at the westerly gateway to the community. Significant golf course exposure along Florida Avenue and preservation of the Lakeview Mountains will ensure that the project will achieve this goal.

General Plan Goal:

"To maintain the special character and identity of the Hemet area as a collection of distinct districts with unique assets and traits, each contributing to the overall image of the community." (Page II-A-8, City of Hemet General Plan)

Implementation:

The project is planned as a high-quality retirement "village," which is largely self-contained and meets most of the residents' service needs without leaving the confines of the project, thus providing a unique and identifiable "district" and a unique single-family non-age-restricted enclave. The entire property (excluding the Lakeview Mountain area) will be enclosed by a project wall or fence helping to create a community atmosphere. The level of amenities and golf orientation will further the project's identity and character as a desirable address.

General Plan Goal:

"Adequate facilities to carry out City of Hemet General Services." (Page II-A-96, City of Hemet General Plan)

Implementation:

The project will provide its fair share of funding for the establishment and maintenance of essential City Services. This will be accomplished through the payment of mitigation fees and offering a site within the project for a public use site.

General Plan Goal:

"Establishment of equitable funding mechanisms which ensure that new development pays for itself." (Page II-B-14, City of Hemet General Plan)

Implementation:

The project, as indicated above, will "pay its own way" with regard to infrastructure and public services.

General Plan Goals:

"Ensure that new development does not adversely affect the services and facilities enjoyed by existing residents, and that new development pays for itself." (Page II-C-1, City of Hemet General Plan)

Implementation:

As indicated previously, the project will pay for its pro rata share of services and facilities. In assisting in the improvement of water, sewer and drainage facilities, in offering a site within the project for a potential public use site, and in the provision of new recreational facilities, the project will actually improve services available to residents of the area.

General Plan Goals:

"Adequate facilities to protect Hemet residents and businesses from flooding conditions." (Page II-C-1, City of Hemet General Plan)

Implementation:

The project will assist in resolving the drainage problems which result in the flooding of Florida Avenue

during heavy rains. In all instances, the project will maintain or reduce current off-site drainage flows.

General Plan Goals:

"Take advantage of existing open space opportunities which conserve natural resources, provide open space for outdoor recreation, and protect the public health and safety." (Page II-E-21, City of Hemet General Plan)

Implementation:

The project provides protection for the site's most prominent visual feature, the Lakeview Mountains, and enhances the existing environment through the development of an 18-hole championship golf course, thereby enhancing the Florida Avenue corridor visual environment and increasing local recreational opportunities. The current proposed Specific Plan envisions expanded daily fee public play.

General Plan Goals:

"Adequate opportunities for all residents to reside in safe, decent housing." (Page II-6-1, City of Hemet General Plan)

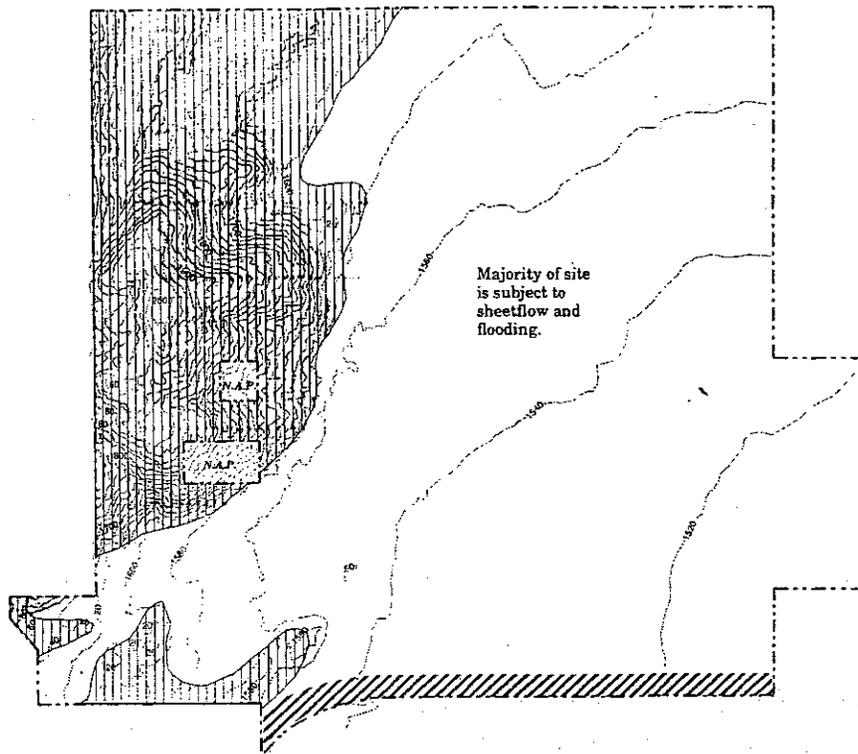
Implementation:

"The project provides a variety of quality housing types designed for all economic segments of the community."

Additionally, the project is consistent with and aids in the implementation of several other General Plan goals related to transportation, public health and safety, resource management and housing.

- **Environmental Mitigation**

In contrast to the typical planning approach of maximizing engineering efficiency and density, and then analyzing the resultant environmental damage to retrofit mitigation, the fundamental approach taken in the design of the Heartland Village project has been to create a community which recognizes and supports the natural and human environment in which it resides. Exhibit No. 3 illustrates the environmental constraints considered in the planning process.



Heartland Village Specific Plan Hemet, California

Environmental Constraints

-  Area of 25% Slopes or Greater
-  Coastal Sage Scrub
-  65 CNEL Noise Contour

Heartland Village Property Hemet, California	
	
Map Scale: One inch = 200 feet	
HEARTLAND Land Strategies	

Exhibit No. 3

Heartland Village contains a championship golf course which traverses between residential neighborhoods and which responds sensitively to the natural environment. By identifying the project's natural watersheds and drainage patterns, the land use plan utilizes a combination of improvements and the golf course and driving range/retention basin as a means of minimizing development impacts upon the natural patterns of drainage and flood hazard. The improvements to be developed include golf course drainage facilities and drainage channels along California Avenue and Florida Avenue and a detention basin at the driving range location. This approach helps to retain the natural characteristics of the existing topography and integrates drainage into the open space created by the golf course. This has the additional benefit of mitigating potential flood control constraints by providing areas for desiltation and detention within the project areas.

Recreation and open space land use components within Heartland Village have been designed to provide a framework for the development of the community master plan and for the mitigation of potential environmental impacts. The Specific Plan has been designed to preserve the natural hillside and drainage areas of the project site. Development surrounding the recreation and open space areas will be clustered and limited to well-defined neighborhood enclaves.

2. Market Objectives

The overall objective of the Heartland Village project is to create a high-quality community with substantial recreational and open space amenities and a high degree of sensitivity towards natural resources and community design values.

In response to what is expected to be a strong local demand for retirement housing, the project will include a wide spectrum of such housing ranging from weekender product and Villas to single-family detached dwellings. The project will also provide opportunities for non-age-restricted home buyers. A large number of the dwellings proposed will have a recreational orientation due to their location adjoining the 18-hole golf course or the project's other amenities and open space features.

The anticipated residential land uses and master phasing plan will establish a diverse product inventory for development which will allow the project sponsor to maintain a viable and marketable project through the inevitable market changes and fluctuations.

The major emphasis of the marketing program for Heartland Village is flexibility to respond to changing market conditions without changing the quality of the community and architectural design. This flexibility is a result not only of the desire to serve a very wide range of market segments, but is also a product of the time frame of development. With a time frame of approximately ten (10) years or more for project build-out, it becomes a necessity to have built-in flexibility because of the fluctuating nature of the local and regional market conditions.

Specific market objectives for Heartland Village include:

- Design the project in a manner sensitive to and compatible with existing and planned surrounding land uses and significant natural resources.
- Have the capability of responding to changing market conditions with a broad spectrum of residential product types.
- Establish a sense of identity through coordinated systems of signage, fencing, architecture, landscaping and circulation as well as provision for identity nodes and neighborhood and community entries.
- Provide for a diversified social environment in the community by the inclusion of diverse housing types and price ranges which will appeal to retirees and non-age-restricted buyers from a variety of socioeconomic groups.
- Create an environment and promote lifestyle opportunities which contribute to the establishment and protection of a high-quality development with long-term value within individual neighborhoods and the Heartland Village community.
- Contribute to the scenic and recreational amenities by providing a recreation and open space system which is both aesthetically pleasing and functional and which complements significant environmental resources.
- Provide quality housing designed for adults of age 55 and older (or such lower age as may be permitted under state and federal law).
- Provide a component of quality housing product for non-age-restricted home buyers.

- Facilitate safe vehicular and pedestrian circulation in harmony with the aesthetics and Specific Plan standards.
- Establish a sense of place and a unique community which is distinctive and identifiable.

B. Land Use Plan and Standards

This section is intended to give an overview of the project and its component master plans. To achieve this, two levels of discussion are provided. The first, in tabular form, provides a statistical summary of the various land uses and planning areas which comprise the plan. The second more extensive portion discusses the basic master planning components within the plan as well as the standards applicable to each.

1. Project Overview

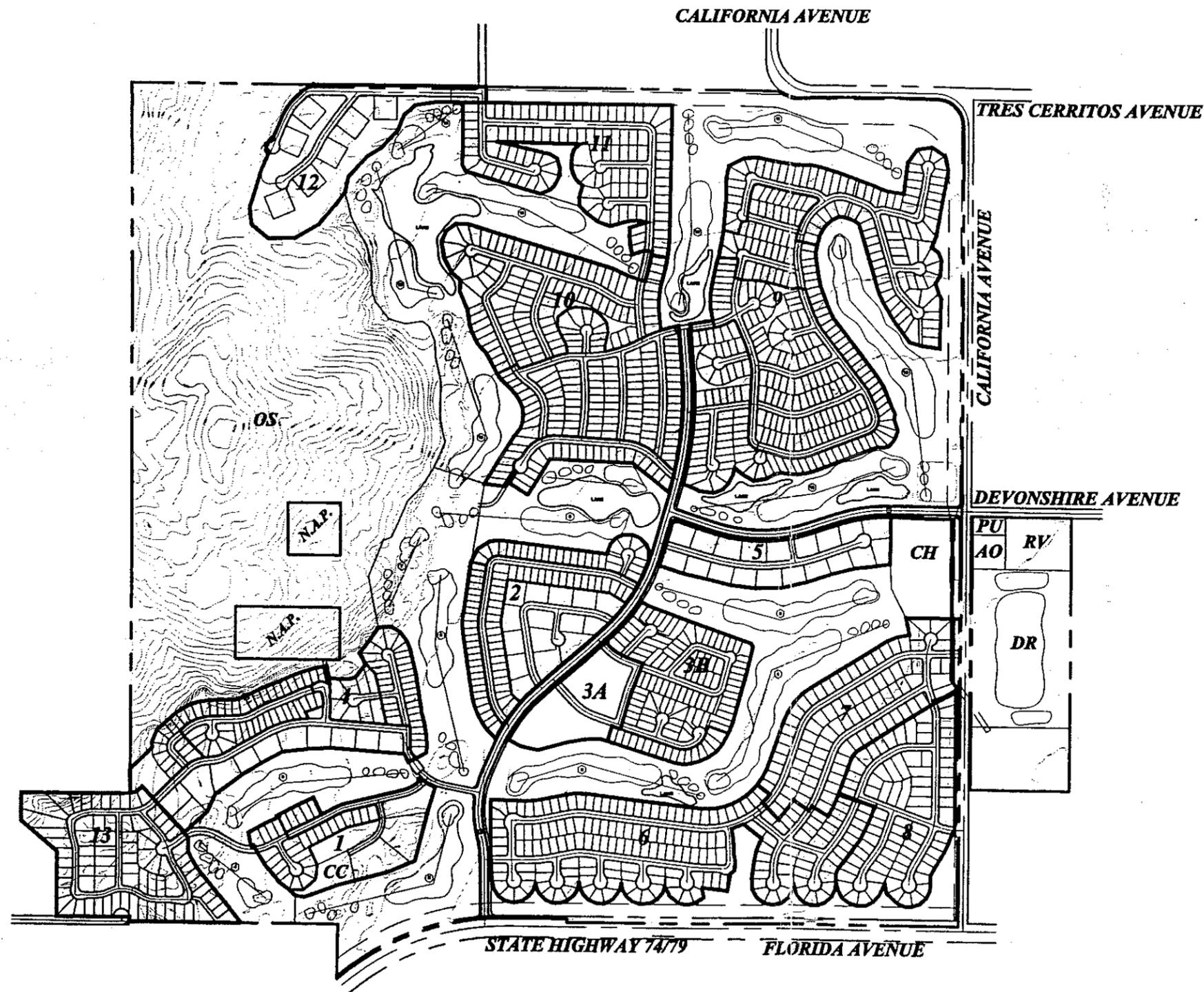
The Heartland Village Specific Plan will reflect a mixed-use, golf-oriented gated master-planned retirement community and a non-age-restricted residential neighborhood in response to market and development trends in and around the City of Hemet and Western Riverside County. The age-restricted portions of the project will also provide security desired by retirees in the form of guard gates and perimeter walls and fences, and an internal private street system.

Table 4 provides a convenient reference to the project's major land use components and their distribution in terms of acres and percentage of site coverage (refer to Specific Land Use Plan, Exhibit No. 4).

**Table 4
Heartland Village
Land Use Summary**

Use	Acreage	Percentage
Open Space, Recreation and Golf	355.6*	53.5%
Residential	304.7	45.8%
RV Storage/Project Administration	4.7	0.7%
Total	665.00	100.0%

* This is comprised of: (i) social country club, 6.2 acres; (ii) public park, 2.2 acres; (iii) clubhouse/maintenance, 5.9 acres; (iv) driving range, 14.0 acres; (v) landscape, 25.5 acres; and (vi) golf course/open space, 301.8 acres.



Heartland Village Specific Plan Hemet, California

- LEGEND**
- OS Natural Open Space
 - CC Country Club
 - RV Recreational Vehicle Storage
 - CH Club House
 - PU Public Use Lot
 - AO Administrative Office
 - DR Driving Range
 - N.A.P. Not a Part

Specific Land Use Plan

Planning Area	Acreage	Product	Density	Total
1	6.0	5,000	5.2	26
		6,000	5.2	5
2	19.7	4,000	8.4	26
		4,500	8.4	65
		"VILLA"	8.4	75
3A	6.3	WEEKENDERS	14.0	88
3B	14.8	4,000	7.4	92
		4,500	7.4	17
4	23.9	4,000	6.3	52
		4,500	6.3	39
		"VILLA"	6.3	60
5	10.0	"VILLA"	9.5	95
6	30.0	5,200	5.9	178
7	16.9	6,200	5.2	88
8	16.0	6,200	4.9	79
9	53.3	4,000	6.3	104
		4,500	6.3	142
		5,000	6.3	92
10	38.3	4,500	6.1	113
		5,000	6.1	119
11	19.8	5,500	5.5	108
12	14.9	"VILLA"	2.3	35
13	17.5	5,000	4.4	77
Subtotal	287.4			1,775
Country Club	6.2			
Clubhouse/ Maintenance	5.9			
RV/Administration	3.7			
Driving Range	14.0			
Park	2.2			
City	1.0			
Golf Course	175.6			
Landscape	23.5			
Openspace	126.2			
Backbone Streets	10.3			
Street Dedication	1.4			
Detention	5.6			
Total	665.0		3.0	1,775

Hole	Par	Length
1	5	535
2	4	410
3	4	385
4	3	175
5	4	440
6	4	425
7	3	150
8	4	385
9	4	465
Out	35	3370
10	5	586
11	4	410
12	4	415
13	5	500
14	3	145
15	4	330
16	4	365
17	3	185
18	4	435
In	36	3371
Total	71	6741

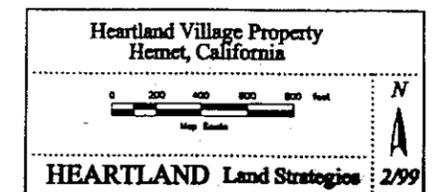


Exhibit No. 4

Table 5, which follows, provides an overview of the project's Planning Areas, land uses and product types.

Table 5
1999 Heartland Village Specific Plan
Land Use and Product Types
 (identical to Table 3)

Planning Area	Acreage	Product	Density	Total D.U.
1	6.0	Single-family/Models	5.2	31
2	19.7	Single-family/Villas	8.4	166*
3A	6.3	Multi-family "Weekender"	14.0	88
3B	14.8	Single-family Detached	7.4	109
4	23.9	Single-family/Villas	6.3	151**
5	10.0	Villas	9.5	95
6	30.0	Single-family Detached	5.9	178
7	16.9	Single-family Detached	5.2	88
8	16.0	Single-family Detached	4.9	79
9	53.3	Single-family Detached	6.3	338
10	38.3	Single-family Detached	6.1	232
11	19.8	Single-family Detached	5.5	108
12	14.9	Villas	2.4	35
13	17.5	Single-family Detached	4.4	77
Subtotal	287.4		6.2	1,775
Social Country Club	6.2			
Public Park	2.2			
Clubhouse/Maint.	5.9			
Public Use Site	1.0			
Driving Range	14.0			
Landscape	25.5			
RV Storage/Project Admin.	3.7			
Golf/OS	301.8			
Private Streets	10.3			
Public Street	1.4			
Detention Basin	5.6			
Total	665.0			1,775

*Comprised of 75 Villas and 91 single-family units.

**Comprised of 60 Villas and 91 single-family units.

2. Master Planning Components

The balance of Chapter III contains a systematic discussion of various planning components which, in combination, form the Heartland Village Specific Plan. These components deal with the land use, infrastructure, and environmental considerations upon which the plan is built.

a. Residential Land Use Plan

Residential land uses within the Heartland Village Specific Plan will provide a variety of retirement and a limited number of non-age-restricted housing opportunities which will respond to regional market factors and conditions. The residential land use component reflects a combination of densities and product types within two broad categories. The Specific Plan will provide entitlement for a maximum of 1,775 dwelling units at an overall density, including open space areas, of 2.7 dwelling units per acre which is down from 2,183 units and a density of 3.3 units in the existing Specific Plan, representing an 18.74 percent reduction in total units. The residential dwelling units are distributed throughout thirteen planning areas which are designed to incorporate specific development standards and features, and to foster the logical and orderly development of the overall residential land use plan.

The Heartland Village Specific Plan also includes a well-rounded amenity package which will help to attract home buyers to the project by addressing the recreational needs of the residents. The provision of these amenities including the golf course and clubhouse, Social Country Club, recreation area, pedestrian paseos, natural open space areas and other open space areas within and adjacent to the residential enclaves will also significantly enhance and preserve the long-term value of residential neighborhoods within the project.

Particularly important in this regard is the 18-hole championship golf course which has been designed to meander among the residential planning areas of the project. The golf course will provide a central focus for the community and an important amenity for the residents of the City of Hemet. The golf course and Social Country Club have been designed to create a high-quality image at the western entrance to the City of Hemet and strong statement of arrival at the Heartland Village community.

The project will provide for one or more master homeowners' association(s) which will manage the common area and community facilities associated with the project, excluding the golf course, driving range, and golf club, RV parking, and administration area.

The Heartland Village residential land use plan includes two broad categories of development, single-family residential and multiple-family residential. Within the broad categories of development are several product types described below which will facilitate the objective of creating an economically and socially diverse community.

- Single-family Residential

Age-Restricted

The single-family residential land use component for the age-restricted portion of the project is comprised of Planning Area Nos. 1, 2, 3B, 4, 5, 9, 10, 11, 12 and 13 totaling 1,342 dwelling units on approximately 218.2 acres.

Non-Age-Restricted

The single-family residential land use component for the non-age-restricted portion of the project is comprised of Planning Area Nos. 6, 7 and 8 totaling 345 dwelling units on approximately 62.9 acres.

The combined age-restricted and non-age-restricted single-family planning areas comprise approximately 95 percent of the total units in the project. Minimum lot sizes will be 4,000 square feet; however, lot sizes will range from 4,000 to 6,200 square feet. Product types will include conventional single-family detached units, angle "z" lots, "z" lot detached units and patio homes. Included within this land use designation are "Villas," which are designed as a cluster of five (5) single-family detached housing units sharing a common courtyard.

All of the age-restricted residential planning areas will be served by a private internal loop road and private collector. The single-family detached residential areas are designed to accommodate a range of products in terms of style, size, price and building pad development standards which are articulated in the Planning Area sections of the Specific Plan.

- Multi-family Residential "Weekender"

The multi-family residential component of the residential land use plan is located in Planning Area No. 3A comprised of 88 dwelling units on approximately 6.3 acres. This multi-family planning area comprises approximately 5 percent of the total units in the Specific Plan.

b. Open Space and Recreation Plan

Approximately 355.6 acres or 53.5 percent of the total project site will be dedicated for recreation and open space uses (see Exhibit No. 5) as follows:

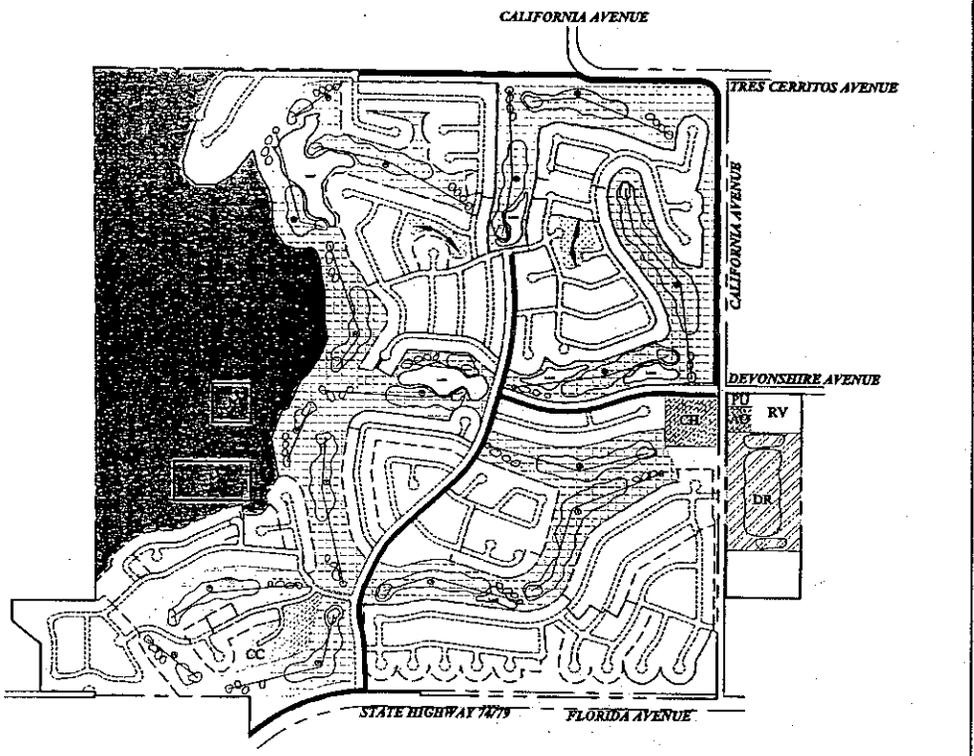
**Table 6
Heartland Village
Open Space and Recreation**

Land Use	Acreage
Social Country Club	6.2
Public Park	2.2
Clubhouse/Maintenance	5.9
Driving Range	14.0
Landscape	25.5
Golf/Open Space	301.8
Total	355.6

In addition to vast areas committed to natural open space uses, the recreation and open space plan will create an extensive amount of recreation and open space area designed for active use within the project.

Interwoven into and around the neighborhoods are open space and recreation features which include the project's golf course, a multi-purpose trail (see Exhibit No. 10) along the drainage channels, and a 2.2-acre public park between Planning Area Nos. 6 and 7 (see Exhibit No. 6). These components of the plan will provide active recreational opportunities and open space uses for each of the adjoining neighborhood enclaves and community residents.

A "Social Country Club" facility is also included in the overall design to provide opportunities for social interaction for residents of the age-restricted component of the project. The Social Country Club facility will likely include such uses as a

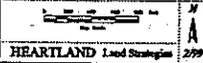


Heartland Village Specific Plan Hemet, California

Open Space and Recreation Plan

-  Natural Open Space
-  Public Golf Course
-  Recreational Facilities
-  Paseos/Greenbelts
-  Driving Range
-  Multi - Purpose Trail
- CC Country Club
- CH Club House
- AO Administrative Office
- RV Recreational Vehicle Storage
- PU Public Use Lot

Heartland Village Property
Hemet, California



HEARTLAND Land Strategies 2/99

Exhibit No. 5

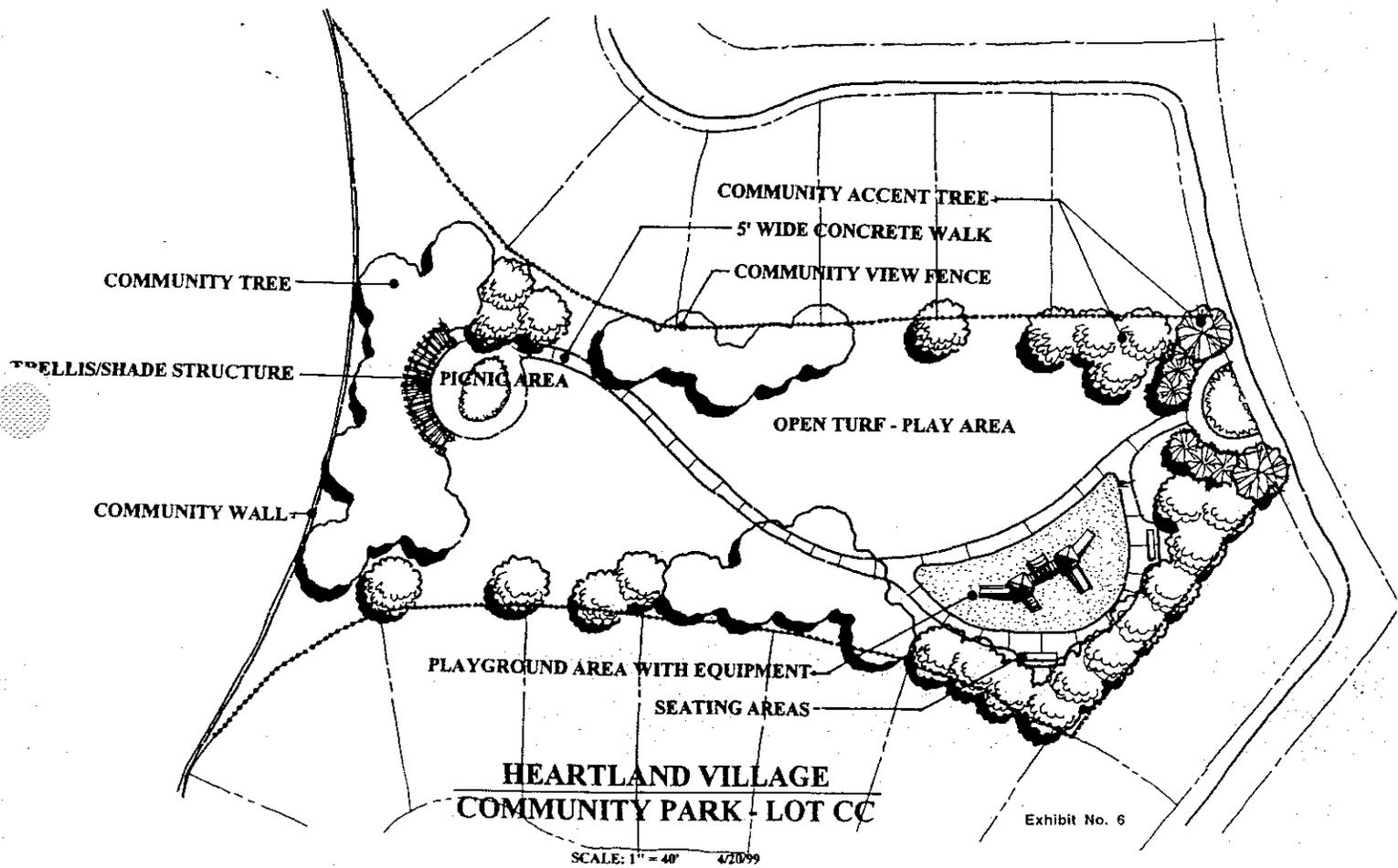


Exhibit No. 6

multi-purpose room, a swimming pool and spa, tennis and paddle ball courts, craft and hobby rooms and an outdoor amphitheatre, all within a campus setting.

c. Grading Concept Plan

The grading concept plan for the Heartland Village project reflects a grading operation which will include limited remedial excavation to remove unsuitable alluvial soils. Remedial earthwork operations will be followed by excavation of the golf course area and compaction of fill material in adjacent development areas. Some hard rock blasting is anticipated near the fringe of the Lakeview Mountains which will generate oversized material that is planned for use as rip rap and for decorative purposes in the golf course and project entry landscape feature. Erosion control measures will be employed during and after grading operations in accordance with the National Pollution Discharge Elimination System (NPDES) permit requirements of the State Regional Water Quality Control Board.

Four types of grading are included in the grading concept plan to address particular land use interface conditions. Due to the preliminary nature of the land use plan and tentative map elevations, the master developer reserves the right to modify pad grade elevation as noted on the tentative map, up to ± 10 vertical feet. These types of grading are described below.

- **Rough and Superpad Grading**

It is anticipated that the entire project site, but not including most of the portion that is to remain as natural open space, will be rough (or "sheet") graded in one mass grading operation. Residential and non-residential use areas of the Specific Plan will be rough graded and left in a sheet graded or "superpad" condition until fine graded for development. Approximately two million cubic yards of dirt will be excavated and compacted on site to accommodate planned land uses. Grading activities may involve temporary borrow and stockpile operations.

- **Contour Grading**

Contour grading techniques will be employed at the edges of visually significant rough graded areas to create an aesthetic transition between different types of land uses. Contour grading techniques will include the use of

increased and variable slope ratios, and meandering of lengthy tops and toes of slopes to lessen the manufactured appearance of prominent slopes.

- **Golf Course Grading**

Following rough grading operations over the development portion of the site, the golf course will be fine graded to achieve the aesthetic and design objectives established by the golf course architect. Techniques which may be employed include construction of earthen berms and mounds and contour grading as described above.

- **Finish Grading**

As specific planning areas are readied for home construction, finish grading operations will occur. This is the grading that creates the individual lots and streets. This operation will continue throughout the development of the project.

d. Landscaping Plan and Standards

The following discussion is presented in two (2) sections: landscaping plan and standards to be applied to the various landscape components.

- **Landscaping Plan**

Landscape treatments throughout Heartland Village are intended to create a sense of harmony and unification for the entire community. The landscape plan is also intended to complement the natural areas in and adjoining the project area. Since a majority of the project site will be landscaped in some fashion, a sensitive use of landscaping material is of key importance in developing a quality visual character for this community.

- **Landscaping Standards**

The following standards shall apply to all landscaped areas identified in the Landscape Concept Plan, Exhibit No. 7. Additionally, landscaping design criteria are provided in the Landscape Guidelines contained herein.

- **Community entries and project monumentation shall reflect the overall theme of the Heartland Village project as**



Specific Land Use Plan

Planning Area	Acres	Product	Density	Total
1	6.0	5,000	5.2	26
		6,000	5.2	5
2	19.7	4,000	8.4	26
		4,500	8.4	65
		"VILLA"	8.4	75
3A	6.3	WEEKENDERS	14.0	88
3B	14.8	4,000	7.4	92
		4,500	7.4	17
4	23.9	4,000	6.3	52
		4,500	6.3	39
		"VILLA"	6.3	60
5	10.0	"VILLA"	9.5	95
6	30.0	5,200	5.9	178
7	16.9	6,200	5.2	88
8	16.0	6,200	4.9	79
9	53.3	4,000	6.3	104
		4,500	6.3	142
		5,000	6.3	92
10	38.3	4,500	6.1	113
		5,000	6.1	119
11	19.8	5,500	5.5	108
12	14.9	"VILLA"	2.3	35
13	17.5	5,000	4.4	77
Subtotal	287.4			1,775
Country Club	6.2			
Clubhouse	5.9			
Maintenance				
RV Administration	3.7			
Driving Range	14.0			
Park	2.2			
City	1.0			
Golf Course	175.6			
Landscaping	25.5			
Open Space	126.2			
Reserve Streets	10.3			
Street Dedication	1.4			
Detention	5.6			
Total	665.0		3.0	1,775

Hole	Par	Length
1	5	535
2	4	410
3	4	385
4	3	175
5	4	440
6	4	425
7	3	150
8	4	385
9	4	465
Out	35	3370
10	5	586
11	4	410
12	4	415
13	5	500
14	3	145
15	4	330
16	4	365
17	3	185
18	4	435
In	36	3371
Total	71	6741

Landscape Concept Plan

Exhibit No. 7

set forth in the Heartland Village Specific Plan. Community entry areas shall be custom designed to enhance natural and constructed features in their vicinity and shall conform to Exhibit Nos. 26 and 27.

- Neighborhood entries shall generally conform to the Neighborhood Entrance exhibit attached as Exhibit No. 30. However, the developer shall reserve the right to modify design or character depicted on this exhibit.
- Streetscape and parkway landscaping shall be provided in an aesthetically pleasing manner and shall include berms, groundcover shrubs and trees, sidewalks and paseo pedestrian linkages. These treatments shall be incorporated into landscaping plans to screen utility enclosures where possible.
- Walls and fences shall substantially conform to the Wall and Fence Plan, Exhibit No. 31 and the elevations in Exhibit No. 32. However, the developer reserves the right to modify the fence and wall treatment depicted.
- The developer shall be responsible for maintenance and upkeep of all slopes and landscaped areas until such time as the responsibility is assigned to the master homeowners' association, golf course owner and operator, a community services district (CSD), or other maintenance entity as approved by the City.
- Permanent automatic irrigation systems shall be installed on all common area landscaped areas and shall utilize water conservation systems.

e. Master Phasing Plan and Standards

The following phasing plan discussion is presented in two (2) sections: master phasing plan and standards to be applied to the master phasing plan.

- Master Phasing Plan

Specific plan phasing will guide the timing and sequencing of development in accordance with grading, infrastructure requirements, infrastructure availability and market demand.

The thrust of the phasing program is to provide flexibility in order to deal effectively with dynamic market trends and conditions. The three master phases identified on the Master Phasing Plan, Exhibit No. 8, incorporate, in total or in part, several individual planning areas. Each phase corresponds to areas that can stand alone in terms of providing adequate infrastructure access and appropriate open space recreation amenities. Because development within each phase is infrastructure dependent, development within phases can occur concurrently or independently, provided that adequate infrastructure is available to each phase at the time of development.

The following table provides a summary breakdown of the planned project phases.

Table 7
Heartland Village
Master Phasing Summary ¹

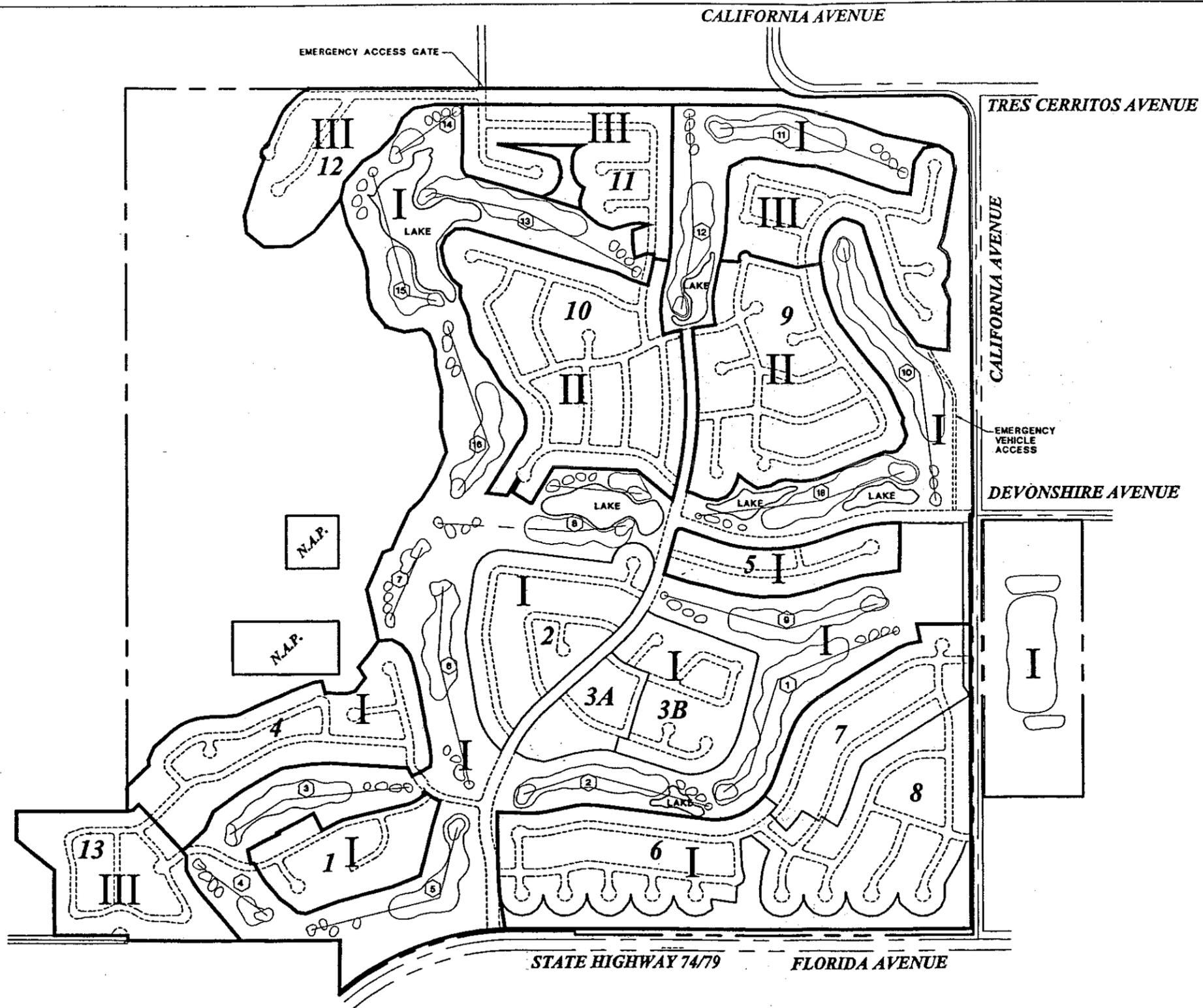
	Planning Areas	Dwelling Units	Non-Residential Uses
Phase 1	1, 2, 3A, 3B, 4, 5, 6, 7, 8	985	Golf Course, Social Country Club and RV Storage
Phase 2	9 (211 units), 10	443	None
Phase 3	9 (127 units), 11, 12, 13	347	Recreation Area and Association Office
Total		1,775	

¹ The master developer reserves the right to sell all or any portion of a particular planning area located in any one of the three phases which may accelerate its development.

- **Master Phasing Standards**

Grading, drainage facilities, temporary and permanent emergency vehicular access, water and sewer facilities and roads shall be provided at adequate levels to accommodate development in each phase in accordance with City requirements as implemented through Conditions of Approval for tentative subdivision maps, plot plans and conditional use permits.

Phases shall develop in accordance with market conditions and infrastructure timing considerations.



Heartland Village Specific Plan Hemet, California

NOTE: TWO MEANS OF ACCESS TO ANY PHASE OF DEVELOPMENT SHALL BE PROVIDED TO THE SATISFACTION OF THE FIRE CHIEF

Master Phasing Plan

Summary

Phase	PA	DU
I	1	31
	2	166
	3A	88
	3B	109
	4	151
	5	95
	6	178
	7	88
II	8	79
	Subtotal	985
II	9	211
	10	232
III	Subtotal	443
	9	127
III	11	108
	12	35
	13	77
TOTAL	Subtotal	347
	TOTAL	1,775

Heartland Village Property
Hemet, California

0 200 400 800 feet
Map Scale

HEARTLAND Land Strategies 2/99

Exhibit No. 8

Phases may develop concurrently, non-sequentially or independently provided adequate infrastructure is available to support the planned density of development. Individual lots and final unit maps may also be recorded non-sequentially by the developer or independently as determined appropriate. The golf course will be developed as part of the first phase of development.

Pedestrian paseos, multi-purpose trails, recreation areas, entry statements and other design features shall be phased concurrently with adjoining areas of development which include those amenities and design features.

f. Zoning Plan and Standards

Specific Plan District zoning regulations will be applied over the entire Heartland Village project. These regulations have been tailored exclusively for projects developed through the Specific Plan process and are intended to provide the project with some degree of flexibility in terms of design standards as it relates to zoning.

All applicable zoning provisions and development standards are contained within the Planning Area descriptions which follow in the Heartland Village Specific Plan, and these standards will effectively supersede the provisions of the City of Hemet Zoning Ordinance. Where the Specific Plan is silent in any given area, the provisions of the Hemet Zoning Ordinance shall apply.

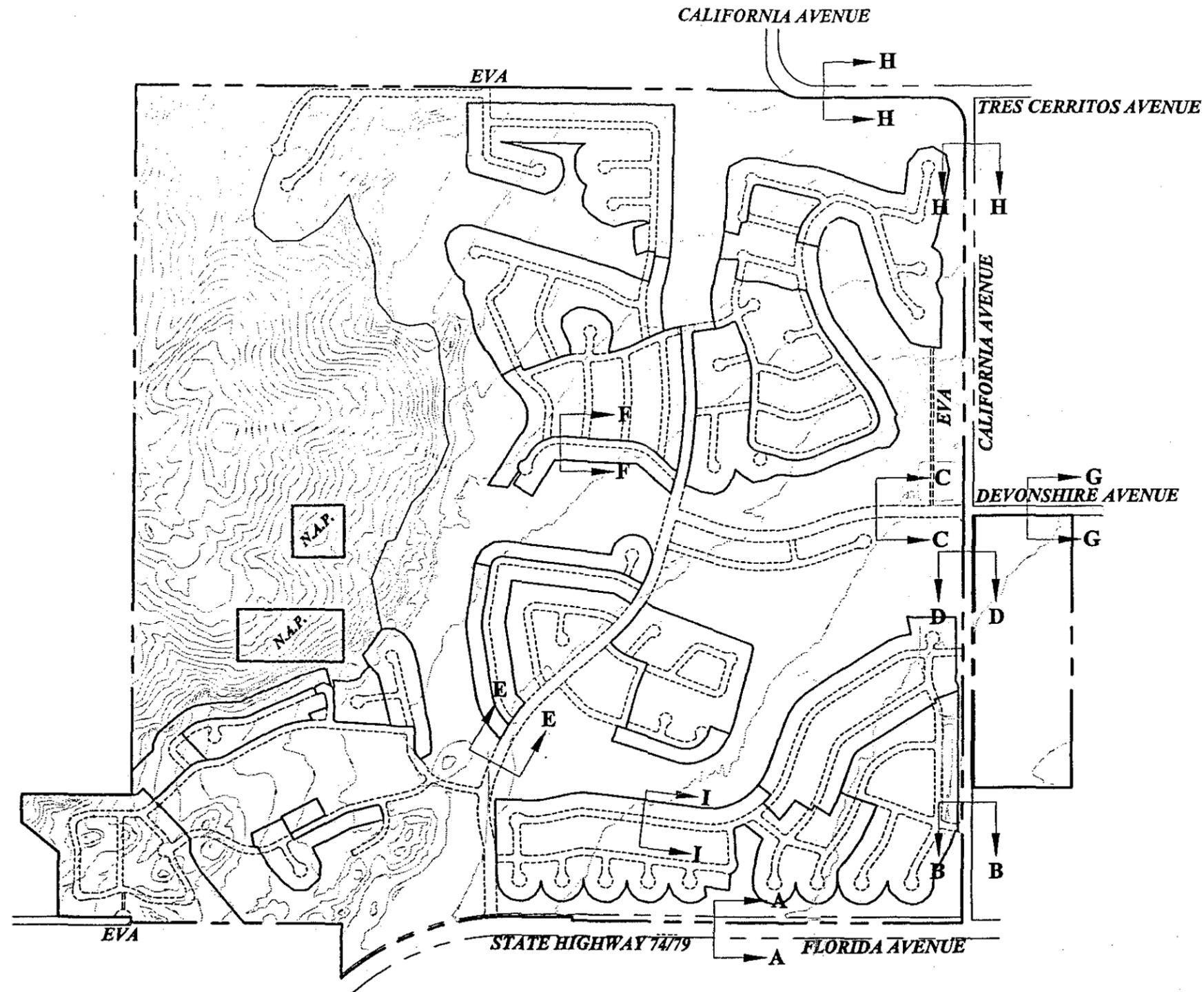
C. Public Facilities Plan and Standards

The following section includes a discussion of major public facility components of the Heartland Village Specific Plan.

1. Circulation Plan and Standards

The Heartland Village circulation plan (see Exhibit No. 9) involves construction of several General Plan roads adjacent to the project site which are described below. The project will also include a private road and public road system that will serve land uses which are internal to the community. Roadway cross-sections for project-related roadways are provided in Exhibit Nos. 10 and 11. Utility easements will be dedicated and overlaid upon the internal street system to accommodate public utilities.

- Florida Avenue (State Highway 74/79) (Section A-A)



Heartland Village Specific Plan Hemet, California

Circulation Plan

- A-A State Highway 74/79
Florida Avenue
- B-B California Avenue (North
of State Highway 74/79)
- C-C Residential Private
Collector Street
- D-D California Avenue (South
of Devonshire Avenue)
- E-E Residential Private
Collector Street
- F-F Private Local Street
- G-G Devonshire Avenue
- H-H California Avenue (East-
West Portion North of Site
and Portion North of
Devonshire Ave.)
- I-I Public Residential Street
- EVA Emergency Vehicle Access

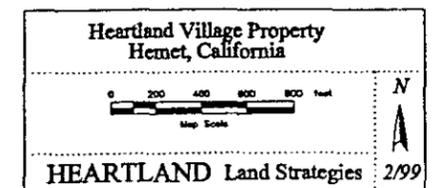
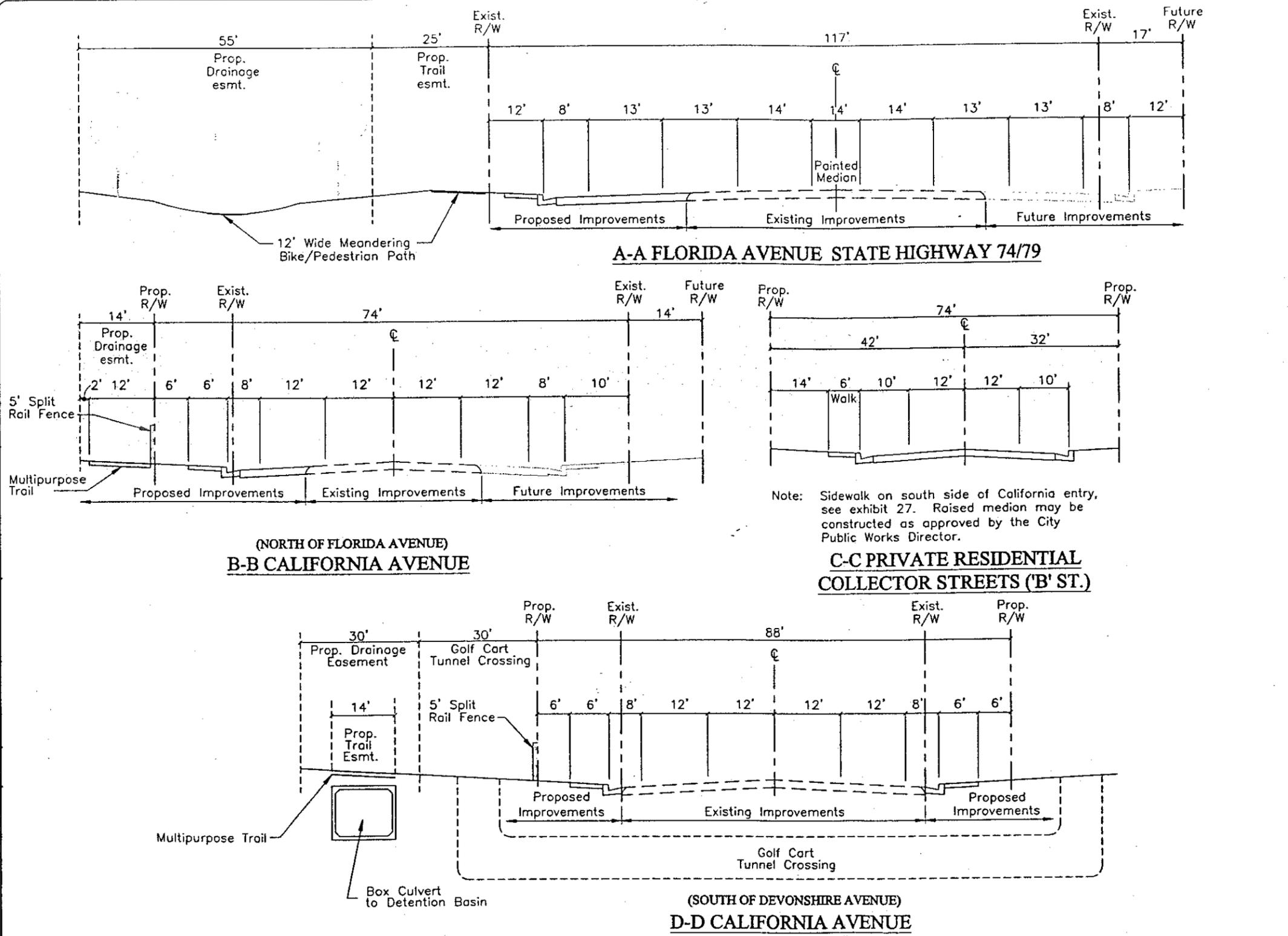


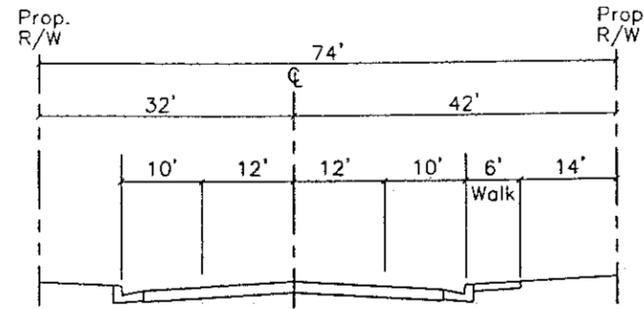
Exhibit No. 9

Road Cross Sections
Sheet No. 1



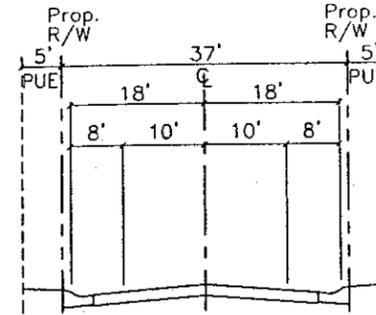
Heartland Village Specific Plan Hemet, California

Heartland Village Property Hemet, California	N ↑
HEARTLAND Land Strategies	2/99

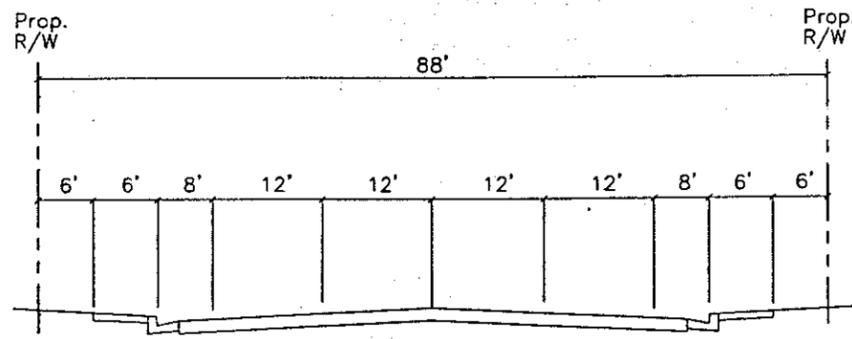


Note: Sidewalk on east side of Florida entry only, see exhibit 27. Raised median may be constructed as approved by the City Public Works Director.

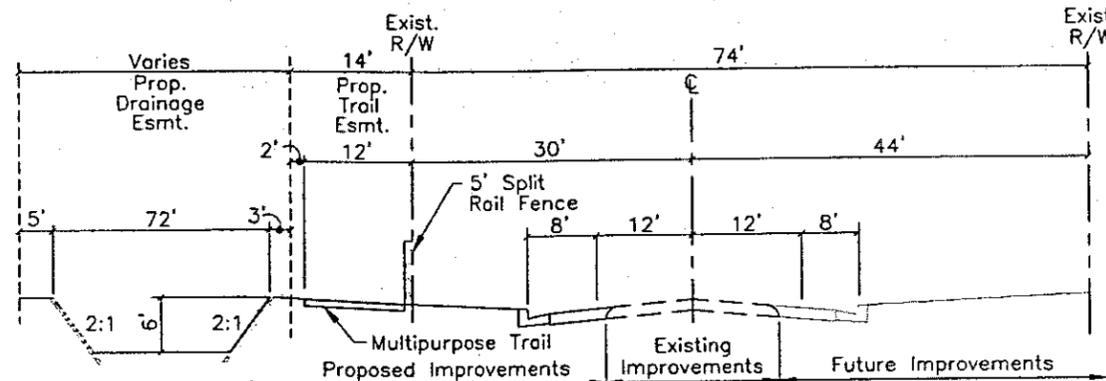
E-E PRIVATE RESIDENTIAL COLLECTOR STREETS ('A' ST.)



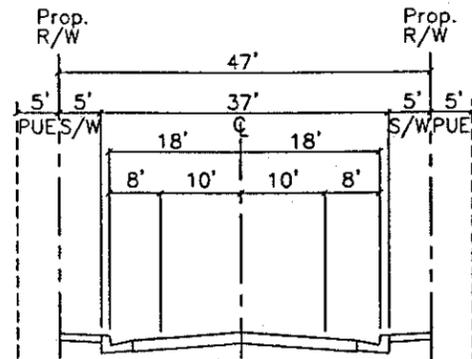
(EXCEPT 'A' AND 'B' STREETS)
F-F PRIVATE RESIDENTIAL STREETS



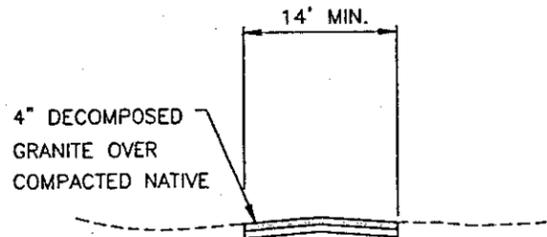
G-G DEVONSHIRE AVENUE



(EAST-WEST PORTION NORTH OF SITE AND PORTION NORTH OF DEVONSHIRE AVENUE)
H-H CALIFORNIA AVENUE



(EXCEPT 'A' AND 'B' STREETS)
I-I PUBLIC RESIDENTIAL STREETS



EMERGENCY VEHICLE ACCESS

**Heartland Village Specific Plan
Hemet, California**

**Road Cross Sections
Sheet No. 2**

Heartland Village Property Hemet, California	N ↑
HEARTLAND Land Strategies	2/99

Exhibit No. 11

Florida Avenue is located adjacent to the southern project boundary and is currently developed as a four-lane undivided highway, with an improved width of approximately 110 feet. Florida Avenue is a Caltrans facility which is also known as State Highway 74 and 79. Full movement access to Florida Avenue is restricted to half-mile intervals based upon the General Plan designation of "Urban Arterial Highway." Development of planning areas adjacent to Florida Avenue will require construction of half-width road improvements based upon an ultimate improved section of 110 feet within a 134-foot right-of-way. Intersections of Florida Avenue with California Avenue and with the project entry road will be signalized when warranted. A 80-foot-wide drainage and landscaping easement will be developed adjacent to the north side of Florida Avenue in order to accommodate General Plan requirements for scenic highways.

- California Avenue (Sections B-B, D-D, and G-G)

California Avenue is located adjacent to the eastern project boundary and is currently developed as a two-lane, undivided road, with an improved width of 24 feet. California Avenue has a General Plan designation of a Secondary Highway south of Devonshire Avenue to a point ± 900 feet north of Florida Avenue. North of Florida Avenue ± 900 feet, California Avenue (Devonshire) is a Major Highway. California Avenue is a Local Collector north of Devonshire Avenue. Half-width road improvements will be constructed south of the golf driving range and detention basin area and full-width street improvements will be constructed between the southern boundary of the golf driving range and Devonshire Avenue. Construction of California Avenue will be based upon both a Major Highway improved section of 76 feet within a 100-foot right-of-way and a Secondary Highway improved section of 64 feet within an 88-foot-wide right-of-way. Construction of half-width improvements on California Avenue north of Devonshire Avenue will be based upon an ultimate improved section of 40 feet within a 60-foot right-of-way.

Devonshire Avenue has been planned as a signalized T-intersection with California Avenue. Turning movements will be provided to allow for the free flow and conveyance of vehicles along California, south of Devonshire, and is anticipated to establish a parallel route to Florida Avenue. Modification of the General Plan Circulation element will be required to implement the proposed improvements.

- California Avenue North of Tres Cerritos Intersection (Section H-H)

Tres Cerritos Avenue is located adjacent to a portion of the northern project boundary and is currently developed as a two-lane undivided road. Tres Cerritos Avenue has a General Plan designation of a Collector. Half-width improvements will be constructed based upon an ultimate improved section of 40 feet within a 60-foot right-of-way.

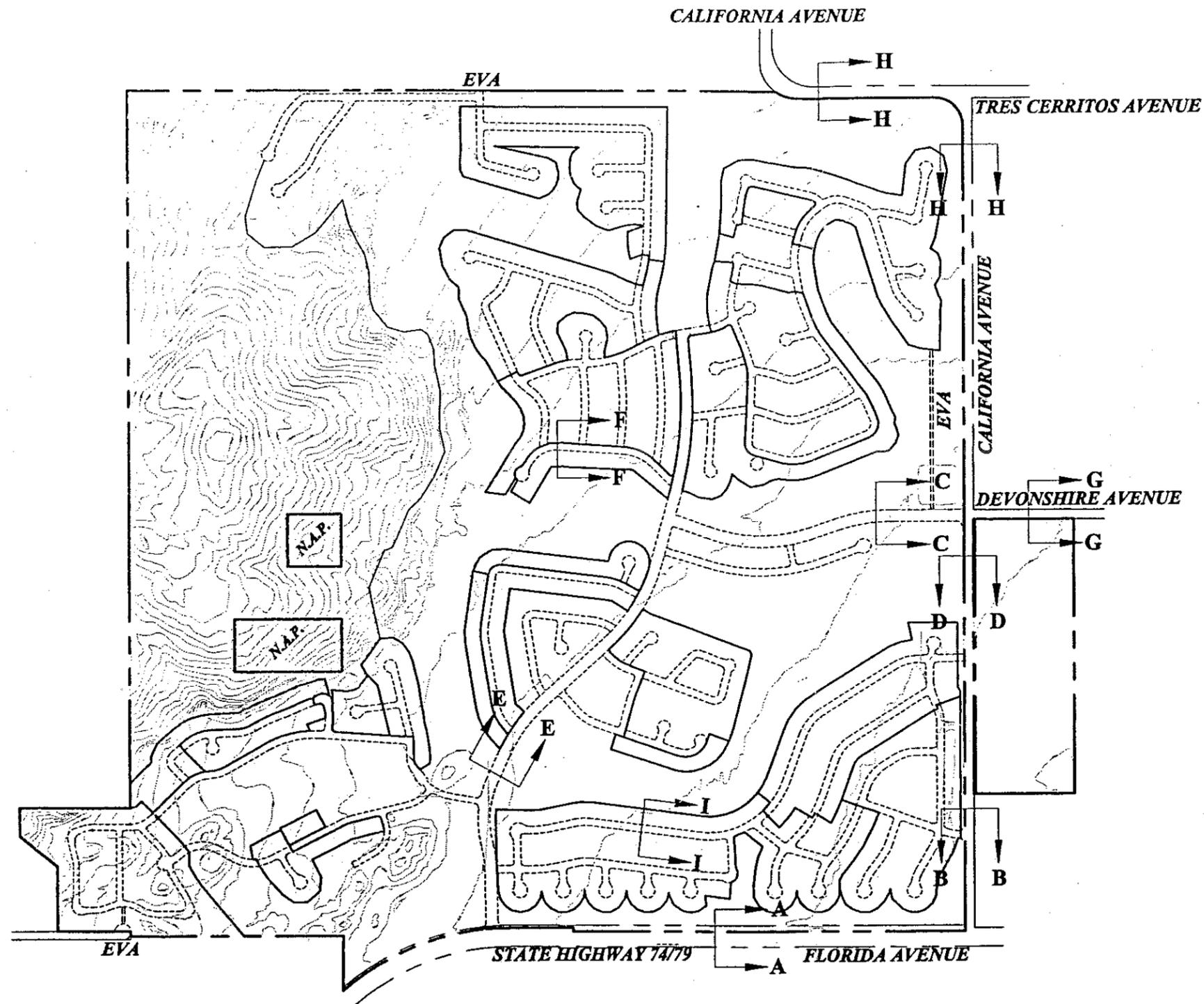
- Project Entry Roads (Sections C-C and E-E)

Two gated project entry roads are planned to tie into the project's private loop road from Florida Avenue and California Avenue servicing the age-restricted portion of the project. Development of the major entry roads will be based upon a 88-foot improved section within a 100-foot right-of-way. Both entry road sections servicing the age-restricted portion of the project will terminate at a private guard gate that will control access into the private street system and will provide for raised medians. The project's private roadways located within the gated portion of the project will be owned and maintained by the master homeowners' association.

The non-age-restricted component of the project will be accessed from a public roadway that will connect to the public portion of the project's Florida Avenue entry road and to a separate entrance on California Avenue.

- Private Loop (Sections C-C and E-E)

The private loop servicing the gated age-restricted component of the project will extend from the guard gates in a modified arch interconnecting the security gates at street "A" and "B" (see Exhibit No. 12). The spine road effectively bisects the property providing a primary access route through the project. Development of the loop will be based upon a two-lane undivided road standard including a 44-foot improved section within a 74-foot right-of-way. The section provides one travel lane in each direction for autos (12-feet wide) and a 10-foot-wide multi-purpose trail lane dedicated for golf carts, bicycles, pedestrians, etc. In addition, one side of the street has a six-foot-wide sidewalk incorporated within a 20-foot wide landscape parkway. The opposite side of the street has a 10-foot-wide landscape parkway but no sidewalk section.



Heartland Village Specific Plan Hemet, California

Circulation Plan

- A-A State Highway 74/79
Florida Avenue
- B-B California Avenue (North
of State Highway 74/79)
- C-C Residential Private
Collector Street
- D-D California Avenue (South
of Devonshire Avenue)
- E-E Residential Private
Collector Street
- F-F Private Local Street
- G-G Devonshire Avenue
- H-H California Avenue (East-
West Portion North of Site
and Portion North of
Devonshire Ave.)
- I-I Public Residential Street
- EVA Emergency Vehicle Access

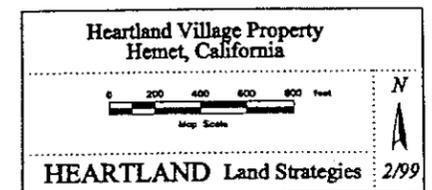


Exhibit No. 12

- Private Local Streets (Section F-F)

All of the residential neighborhoods within the project servicing the gated age-restricted portion of the project will be served by private local streets. The private local streets will be constructed based upon a two-lane undivided standard which includes a 37-foot improved street section with rolled curbs. Two public utility easements with a minimum width of 5 feet will be provided behind the street rights-of-way. On-street parking will be allowed on both sides of the private local street.

- Public Local Streets (Section I-I)

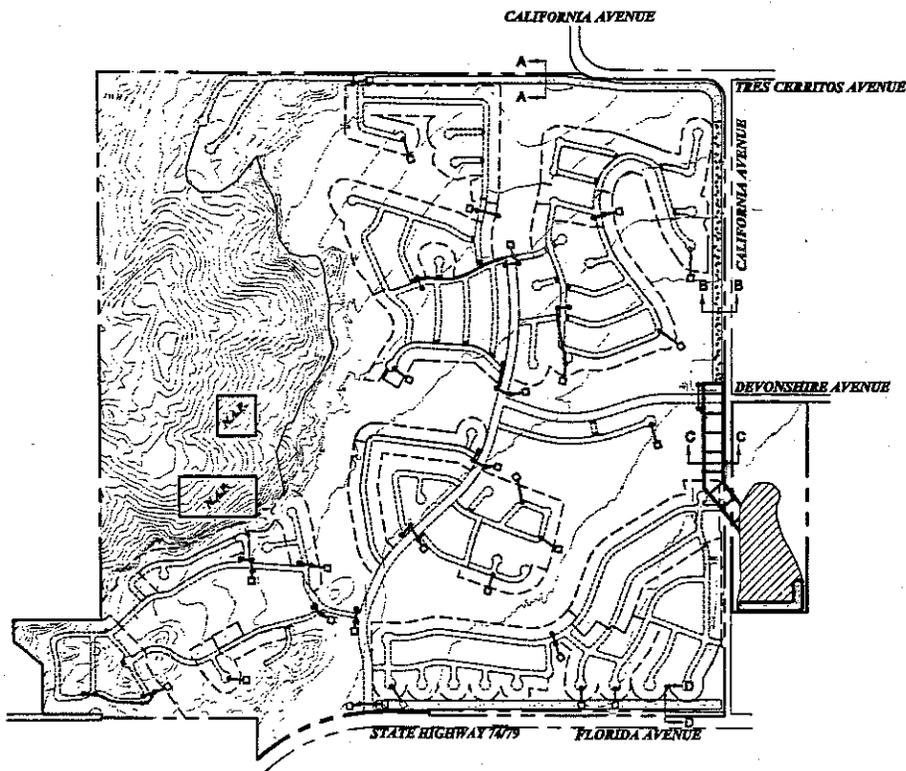
The non-age-restricted neighborhoods within the project will be served by public, local streets. The public local streets will be constructed based upon a two-lane, undivided standard street section which includes a 36-foot improved street within a 46-foot right-of-way.

- Emergency Access

An Emergency Access Plan has been created to provide emergency access at two locations; first, along the Heartland Village northern property line, which provides an additional point of emergency access to the Reinhardt Canyon area; and second, from a cul-de-sac in Planning Area No. 9 along California Avenue connecting to the project's secondary entrance road at Devonshire Avenue. The plan was developed for the use and management of a disaster affecting the community of Heartland Village and the Reinhardt Canyon area to the north. The plan incorporates implementation, an incident management system, HOA responsibilities, communication, preplanning and post-incident responsibilities. The plan is included herein as Technical Appendix 1.

2. Drainage Concept Plan

The Heartland Village drainage concept plan (see Exhibit Nos. 13 and 14) has been designed to accept and convey storm flows from off-site tributary drainage areas that traverse the project site and provides for the management of the on-site drainage. The plan has also been designed to mitigate potential flood hazards on-site and to replicate or improve existing drainage conditions downstream of the property. The following discussion is organized based upon each of the two major drainage basins which impact the project.



Heartland Village Specific Plan Hemet, California

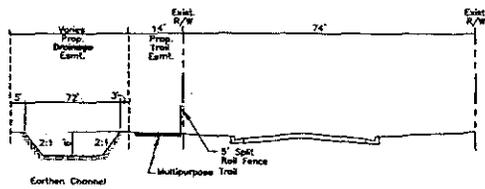
Drainage Plan

- Drainage Channel
- Outlet Structure
- Inlet Basin
- Drainage Outlet
- Storm Drain Pipe
- Detention and Detention Basin
- Earthen Channel
- Rip Rap Lined Channel
- Cross Gutter
- Culvert

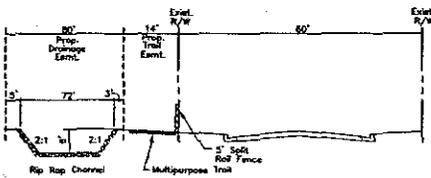


Exhibit No. 13

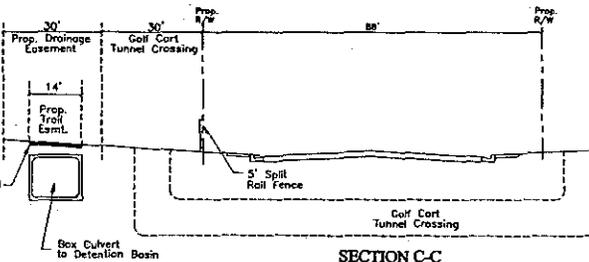
Channel Cross Sections



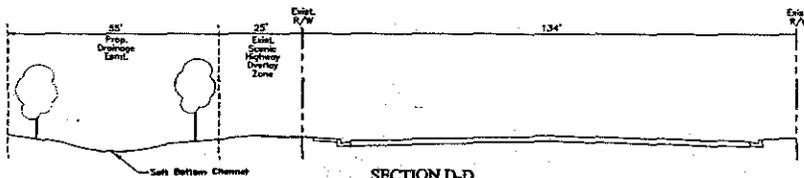
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

FLORIDA AVENUE STATE HIGHWAY 74/79

Heartland Village Specific Plan
Hemet, California

Heartland Village Property Hemet, California	N A
HEARTLAND Land Strategies 2/99	

Exhibit No. 14

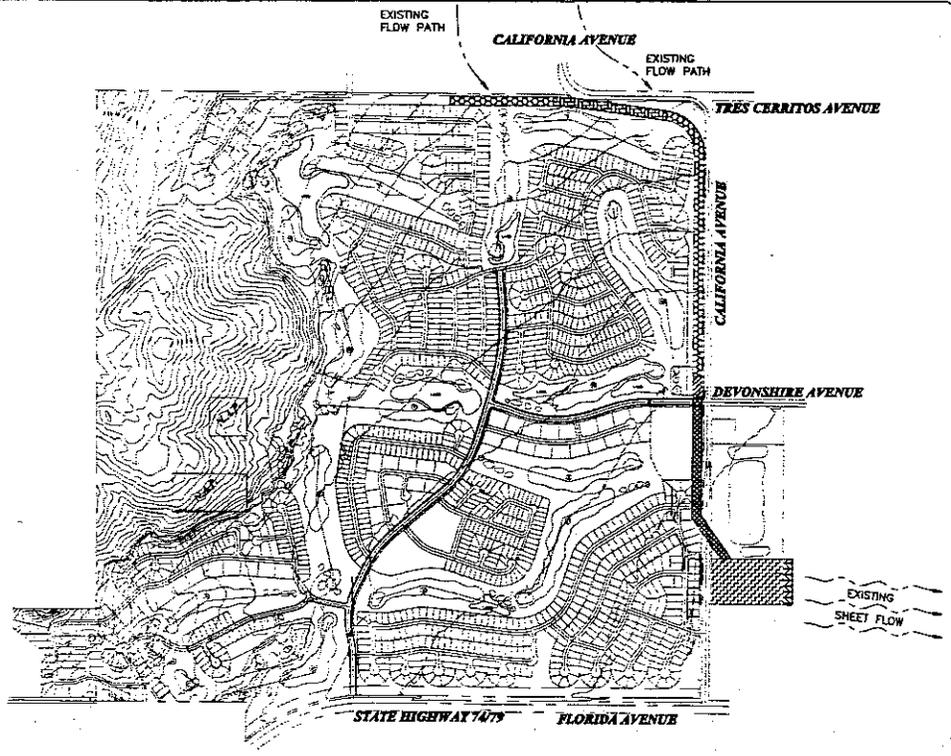
- Reinhardt Canyon

The extreme northeast corner of the Specific Plan property is impacted by storm flows which emerge from approximately 1,810 acres in Reinhardt Canyon. The majority of the 1,500 (not bulked) cubic feet per second (cfs) storm flow will be conveyed around the site in a southern direction. These flows are combined with runoff generated in the Lakeview Mountains resulting in a total 100-year discharge of 1,700 (unbulk) cfs. A large desiltation basin is proposed to be constructed within the golf course driving range area on the east side of California Avenue to remove silt and debris from storm flows leaving the property. Hardened slope protection will be provided for the proposed soft bottom channel located at the easterly project perimeter along California Avenue to mitigate potential impacts in accordance with final subdivision improvement plans. South of the secondary project entry, the storm water will be conveyed within an arch plate conduit under California Avenue. The entire system will be dedicated to the City for ownership and maintenance. However, annual maintenance costs will be covered in a landscape lighting maintenance district. Fee credits will be provided to the project for retention basins constructed to detain and attenuate the historical flows (1,700 cfs) and the acquisition of a 5.17-acre parcel which the master developer may acquire. Exhibit Nos. 15 and 16 illustrate the drainage improvement plan based on two scenarios. Alternate "A" illustrates the current drainage plan and Alternate "B" illustrates the drainage plan assuming the 5.17-acre parcel is acquired by the master developer.

Outfall from the desilting/detention basin will be completed via a broad crested weir to substantially emulate historical flow patterns.

- Florida Avenue

The southern half of the Heartland Village Specific Plan is impacted by storm flows which originate in the Homeland and Lakeview Mountain areas. Currently, those flows which consist of approximately 500 (unbulk) cfs are conveyed partially on the subject site and partially within the Florida Avenue right-of-way. The northernmost travel lanes of Florida Avenue are often flooded during periods of peak flow. The drainage concept plan accepts these flows at the project's western boundary, conveys the flows through a series of desilting basins and transfers the clear water flows into the



LEGEND

- EARTHEN TRAPEZOIDAL CHANNEL (1000 FT)
BASE WIDTH= 30 FT., Z= 2, HEIGHT= 10 F
- RIPRAP LINED TRAPEZOIDAL CHANNEL (3150 F)
BASE WIDTH= 30 FT., Z= 2, HEIGHT= 10 FT.
- TRANSITION STRUCTURE (100 FT.)
- 15 FT. DIAMETER MULTI-PLATE CORRUGATED
STEEL PIPE WITH CONCRETE INVERT LINING
(1500 FT.)
- DETENTION BASIN (250 AC. FT.)
- WEIR (800 FT.)

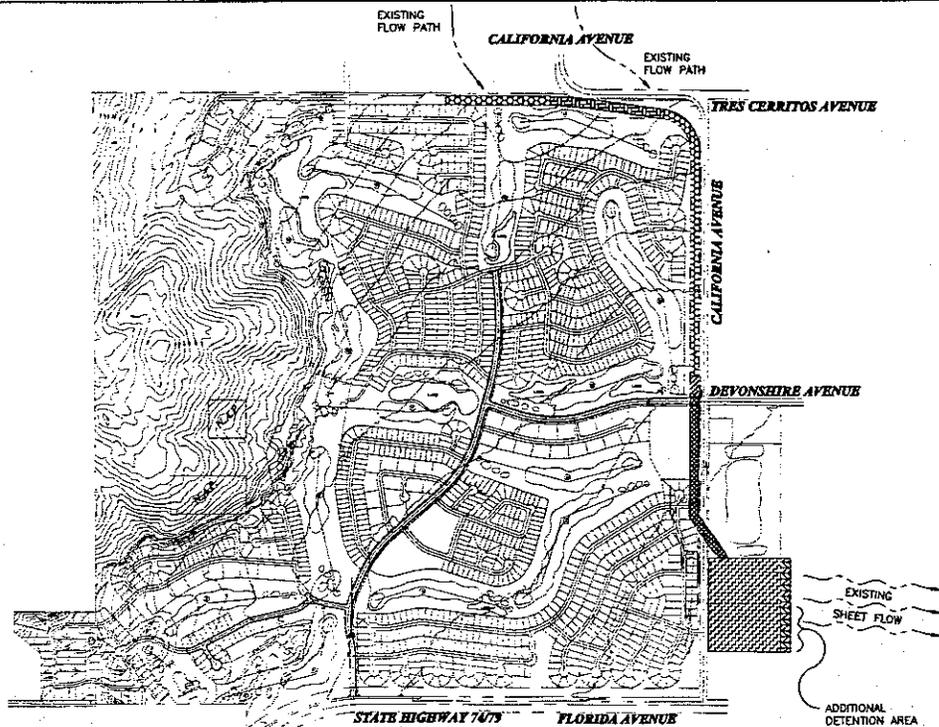
**Heartland Village Drainage Improvement Plan
Hemet, California**

Heartland Village Property
Hemet, California

HEARTLAND Land Services 3/99

ALTERNATE 'A'

Exhibit No. 15



LEGEND

-  EARTHEN TRAPEZOIDAL CHANNEL (1000 FT)
BASE WIDTH= 30 FT., Z= 2, HEIGHT= 10 F
-  RIPRAP LINED TRAPEZOIDAL CHANNEL (3150 F)
BASE WIDTH= 30 FT., Z= 2, HEIGHT= 10 FT.
-  TRANSITION STRUCTURE (100 FT.)
-  15 FT. DIAMETER MULTI-PLATE CORRUGATED
STEEL PIPE WITH CONCRETE INVERT LINING
(1500 FT.)
-  DETENTION BASIN (250 AC. FT.)
-  WEIR (800 FT.)

Heartland Village Drainage Improvement Plan Hemet, California



ALTERNATE "B"

Exhibit No. 16

golf course via a system of streets and storm drains. The majority of these storm flows will then be conveyed through the property and will be retained within the golf course area. Local detention of flows from Florida Avenue will be contained in a 70-foot-wide easement with a grass-lined channel that will parallel Florida Avenue.

Individual lot drainage will be handled in a manner consistent with the Uniform Building Code; however, provisions will be made for limited cross-lot drainage when developing the residential product types, as illustrated in Exhibit No. 17. Additionally, individual lots, cul-de-sacs and street improvements will back drain into the golf course detention basins as designed by the project's engineer.

3. Water and Sewer Plan

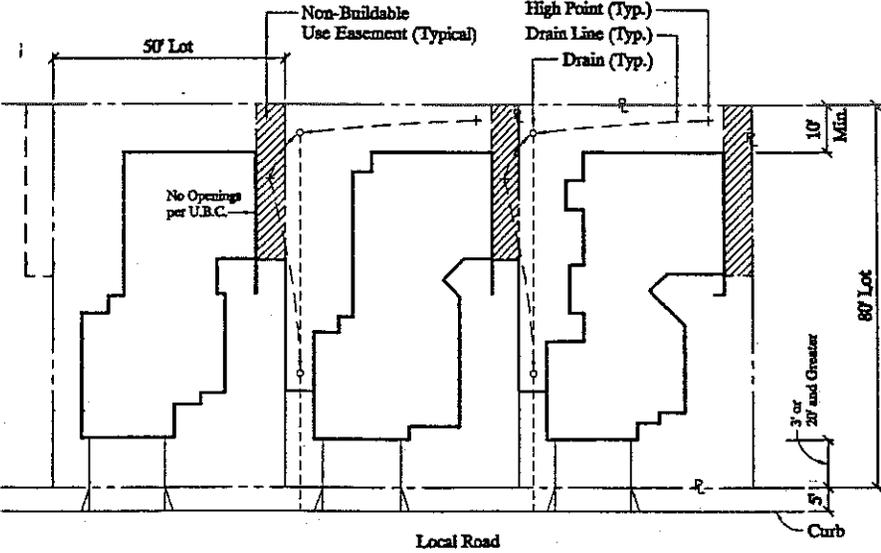
The Heartland Village Specific Plan is located within the Eastern Municipal Water District (EMWD) service area. This quasi-municipal firm provides water, transmission and sewer trunk main and treatment service to the project site. The proposed Water and Sewer Plans for the project are more properly referenced in Exhibit Nos. 18 and 19. EMWD's Plan of Service for Heartland Village (TTM28286) dated April 13, 1999. The following sections summarize this Plan of Service for the water and sewer systems that will serve the project. Based upon the Plan of Service the project will be required to provide sized facilities that exceed the direct demand associated with the Heartland Village Specific Plan. The project proponent and EMWD will establish reimbursement mechanisms to recover those costs associated with the upsized facilities, or receive credits from EMWD for connection fees to the extent the oversized facilities are constructed by the project.

- Water Facilities

EMWD currently delivers domestic and raw water from the Fruitvale systems to the subject property for agricultural irrigation. It is intended that this system will be converted for golf course irrigation purposes.

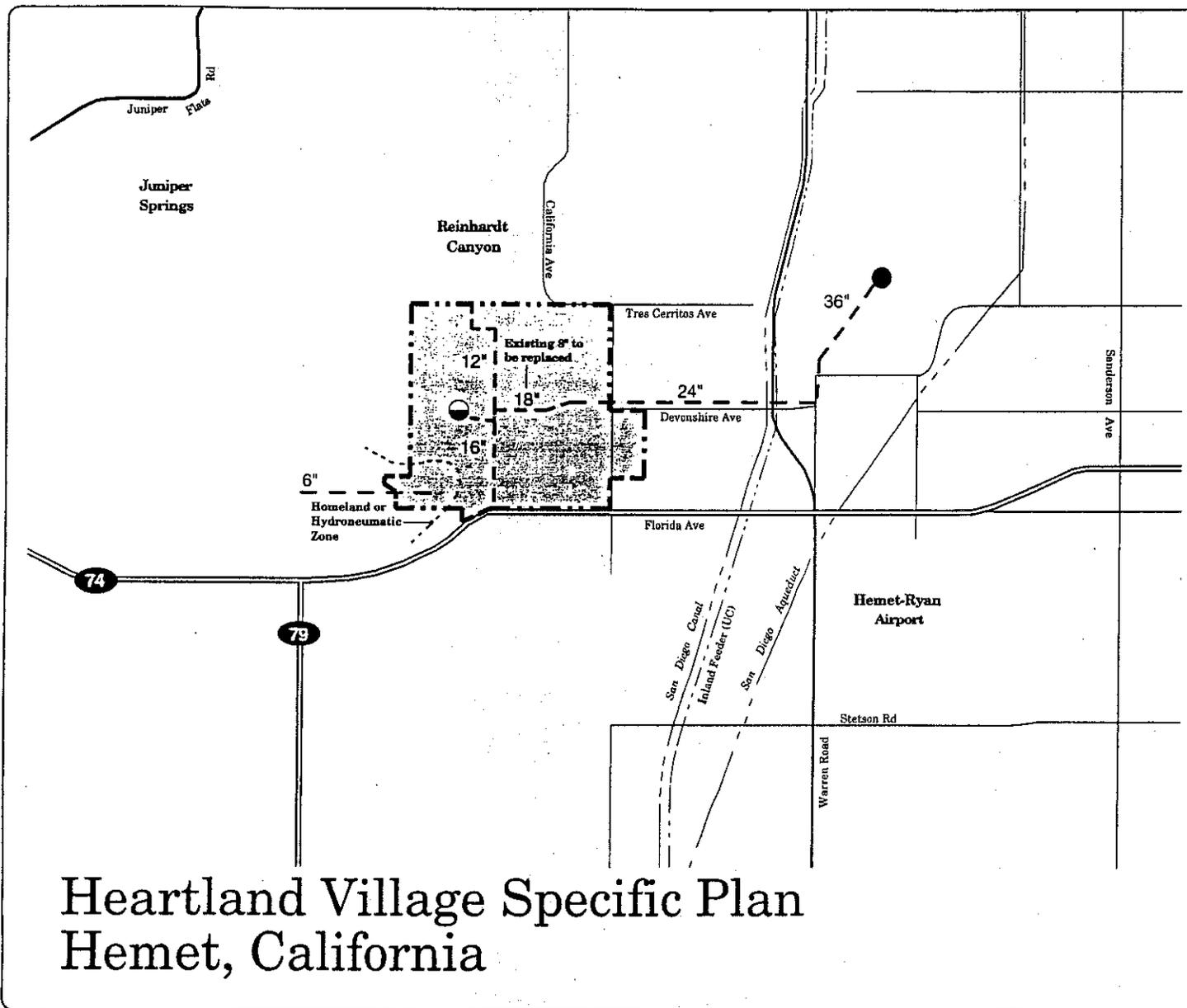
EMWD also provides potable water facilities on-site in the form of 12-inch and 8-inch transmission mains which traverse the project site and which are located in Florida, California and Devonshire Avenues. It is the intent of the proponent that these facilities will be relocated and replaced with a new backbone domestic water system to serve the project.

Cross Lot Drainage



Heartland Village Specific Plan
Hemet, California

Heartland Village Property Hemet, California
Map Scale: 1" = 20'
HEARTLAND Land Strategies
Exhibit No. 17



Water Facility Plan

- Existing Tres Cerritos Reservoir
- Existing Fruitville Reservoir No. 37

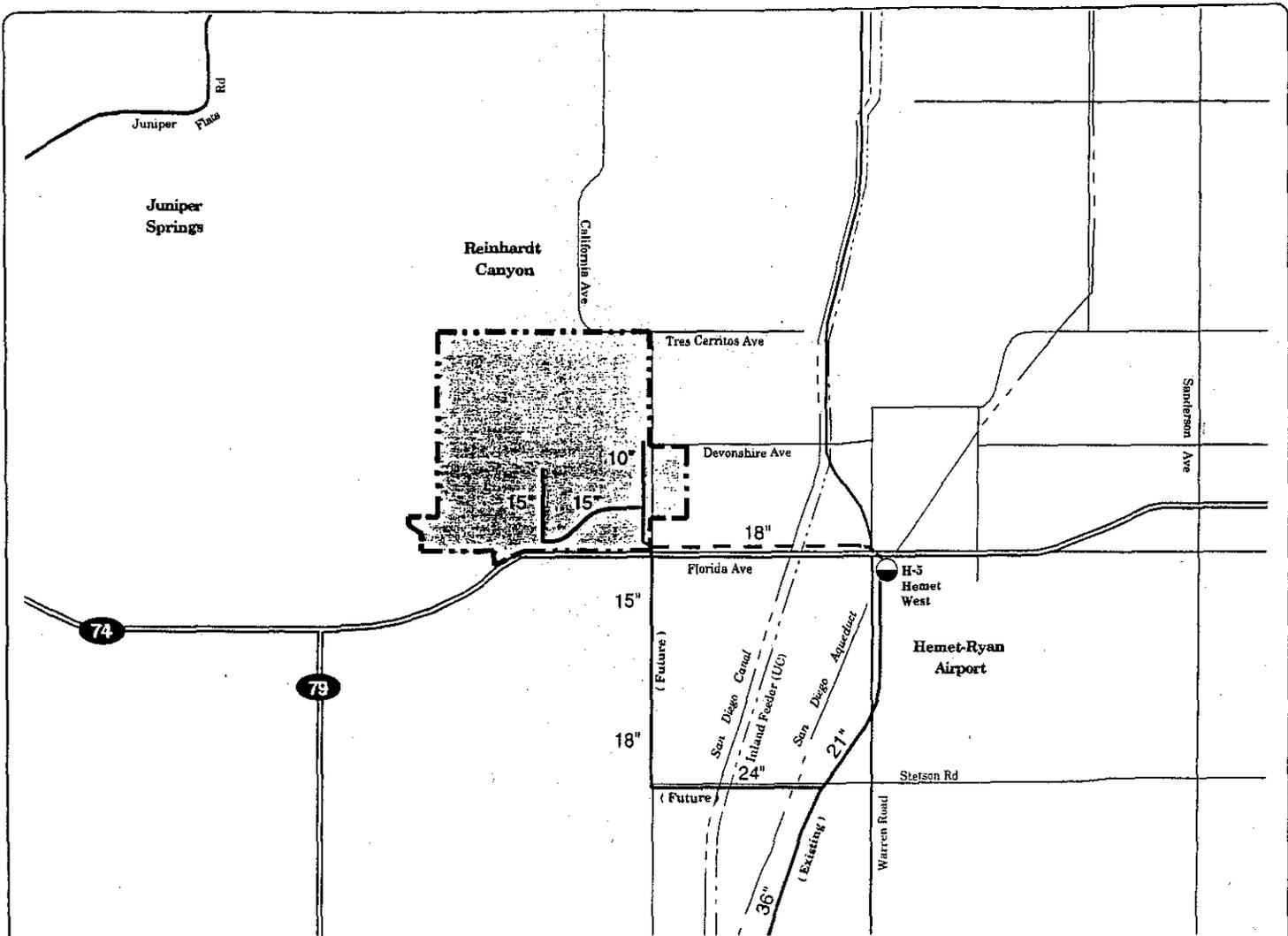
12" Pipe Sizes

Heartland Village Property
Hemet, California

Map Scale

4/99

Exhibit No.: 18



Heartland Village Specific Plan Hemet, California

Sewer Facility Plan

-  Gravity Sewer
-  Force Main (Temporary)
-  Existing Lift Station
-  6" Pipe Sizes

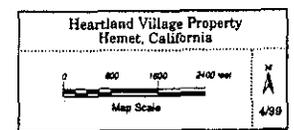


Exhibit No.: 19

The plan of service noted earlier requires certain off-site improvements to be constructed by the master developer of Heartland Village. The location and size of these off-site facilities vary. Please reference Plan of Service, Appendix No. 2, for exact location and size detail.

- **Sewer Facilities**

Sewer trunk main and sewage treatment facilities for the Heartland Village Specific Plan will be provided by EMWD. The project will ultimately be served by the master-planned Southwest Interceptor gravity sewer that is proposed to parallel the Metropolitan Water District canal and flow to the EMWD Sun City Treatment Plan. On-site sewer flows will be collected by on-site gravity sewers which will converge at the southeast corner of the subject property. From this corner, sewer flows will be conveyed in a new off-site backbone collector to be constructed in the Highway 74 right-of-way east to Warren Avenue. This backbone system is proposed to be upsized to provide sewer connections to properties which abut its proposed alignment. The Plan of Service (Appendix No. 2) provides specific location and pipe sizes of the facilities to be constructed for Heartland Village.

- **Storm Drain Facilities**

Storm drain facilities within the golf course area will be maintained by the golf course operator, master homeowners' association, master developer or other entity approved by the City. Storm drain facilities located in common areas and private streets will be maintained by the master homeowners' association. The storm drain facilities located in public streets will either be maintained by Caltrans or the City depending upon their location. The major storm drain channel will be maintained by the City through a landscape, lighting maintenance district to be formed.

4. Fire Protection Plan

Fire protection services are provided to the project site by the City of Hemet. Mitigation fees which have been adopted by the City will address project-related impacts and provide funding for fire protection services as the project develops. A public use facility site has been identified adjacent to the planned Administration office site located at the intersection of California Avenue and Devonshire Avenue. Dedication of land for a public use facility

would result in credit towards applicable fees, or reimbursement in the event that the value of the land exceeds the fees.

5. Public and Private Facilities Maintenance Plan

Public facilities required to implement the Specific Plan will be maintained by a variety of public entities and/or by the master homeowners' association which will be established in accordance with the requirements of the City of Hemet. Backbone water and sewer systems will be maintained by EMWD. Water distribution and sewer collection systems may be maintained by the City of Hemet or EMWD. Caltrans will maintain Florida Avenue and the City of Hemet will maintain the remaining public streets that serve the project. All streets internal to the age-restricted portions of the Specific Plan will be private streets that will be maintained by the master homeowners' association. All streets internal to the non-age-restricted portion of the Specific Plan will be public streets maintained by the City upon conveyance. Private open space, recreation and landscape facilities will also be maintained by a homeowners' association or other entity mutually agreed upon by the City of Hemet and the master developer. The golf course will be maintained by the developer's assignee (a qualified and professional company specializing in golf course management).

6. Public Facilities Financing Program

Public facilities required to implement the Heartland Village Specific Plan will be financed by a variety of sources identified below.

- **Road and Stormwater Improvements**

The cost to improve Florida Avenue, portions of California Avenue and Devonshire Avenue, including related utility improvements, and other drainage improvements to address stormwater management shall be financed through a Mello Roos Community Facilities District or other public finance mechanism. To the extent these improvements are off-site, they will be dedicated to the City of Hemet or other responsible public agencies following acceptance of those facilities for maintenance by the respective agencies and in accordance with a Purchase and Financing Agreement between the developer and appropriate agencies.

- **Backbone Water and Sewer Facilities**

Off-site backbone water facilities are not required to accommodate the ultimate development of the project site since existing on-site facilities are adequate. Off-site sewer system improvements are proposed to be financed by the master developer through the CFD mechanism. Ultimate construction of treatment capacity and gravity trunk main facilities will be funded through payment of EMWD connection fees. If any oversized facilities are required, and if adjacent properties, as they develop, are allowed to tap into the reclaimed line constructed by the master developer, the master developer will be entitled to appropriate reimbursements at the time the adjacent properties are developed.

- **City Facilities**

All off-site City of Hemet facilities including roads, traffic signals, fire and police protection, and libraries will be funded on a pay-as-you-go basis pursuant to the payment of City mitigation fees and in accordance with the Development Agreement between the developer and the City of Hemet. The city fees are subject to any off-set credits available to the master developer for on-site and off-site facilities constructed that fulfill and exceed the project's obligations. All on-site master-planned facilities required by the City will be funded by the developer and may be constructed pursuant to City mitigation fee reimbursement provisions as set forth in the Development Agreement. The golf course shall be a credit toward Quimby Act park requirements for the project.

- **Additional Improvements**

- Project perimeter landscape and wall treatments
- Public service apparatus
- Development Agreement fee
- A portion of the master drainage study
- Two traffic signals
- The 5.17-acre additional retention basin land acquisition

D. Planning Area Descriptions and Design

The Project has been designed into 13 planning areas offering a variety of residential product types. Planning Areas 1, 2, 3A and 3B, 4, 5, 9, 10,

11, 12, and 13 are planned for 1,438 restricted residential units ranging from 4,000 to 5,500 square foot lots, and including a clustered "Villa" housing product and multi-family "Weekender" residential units that will initially be used for marketing purposes. Planning Areas 6, 7 and 8 are planned for a total of 345 non-age-restricted residential units offering larger lot housing product for younger family residents.

1. Planning Area 1

A. Description - Detached Single-Family Residential and Social Country Club

Planning Area 1 is designated as the project's model site and location for the private Social Country Club facility servicing the age-restricted portion of the project.

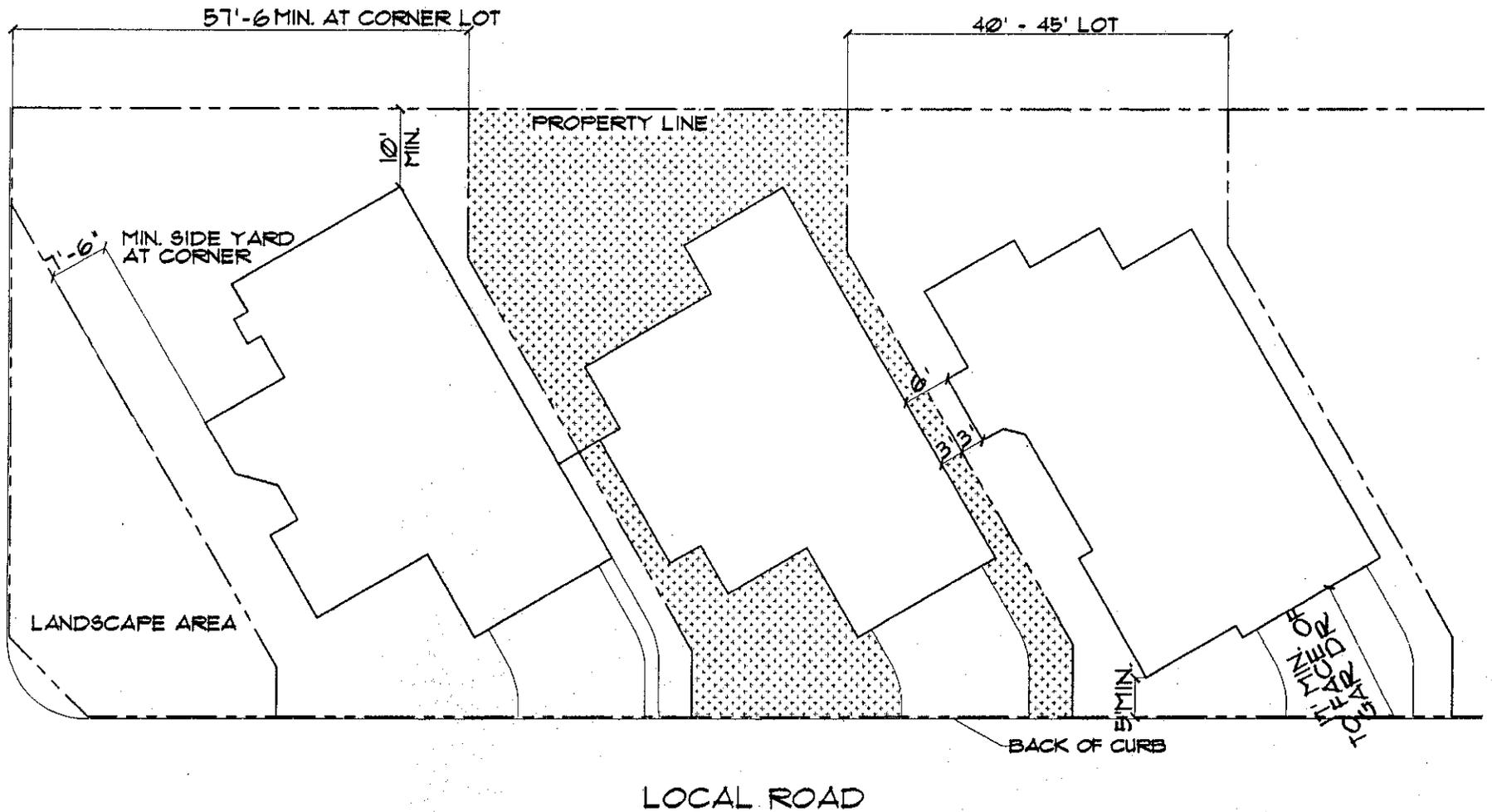
(1) Single-Family Residential

Reflective of this designation, the area will include a variety of products on lots with a standard size of 5,000 square feet. It is anticipated but not required that models for all the age-restricted portions of the development will be built in this planning area. These include 4,000 square foot, 4,500 square foot, 5,000 square foot, 5,500 square foot and Villa products. Areas within the Planning Area which are not subject to model home development or the Social Country Club facility will be developed with minimum lot sizes of 4,000 square feet with an anticipated lot size of 5,000 square feet. This Planning Area contains 12.2 acres (6.0 acres dedicated to the model site and 6.2 acres devoted to the Social Country Club) with a base density of 5.2 dwelling units per acre based on the 6.0 acres comprising the model site.

This enclave is projected to constitute one of the project's most prestigious locations because virtually all of the area's lots will front on either the golf course or an open space area connecting to the Social Country Club.

The residential product type which may be accommodated in this Planning Area includes angle lots, zero lot line lots, "z" lots, angle "z" lots, patio homes and Villas, as illustrated in Exhibit Nos. 20, 21, 22, 23, 24 and 24-1.

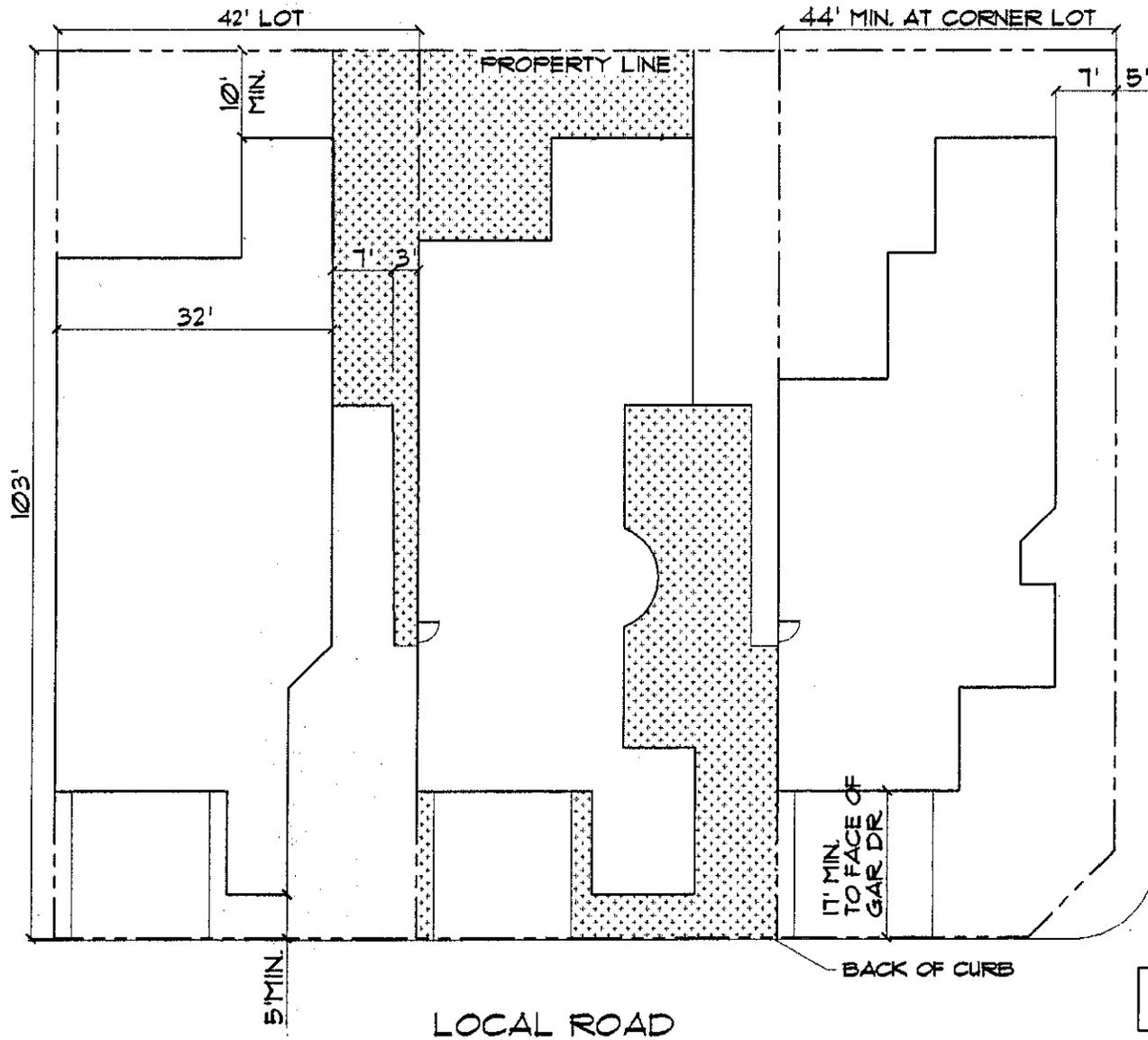
(2) Social Country Club Facility



Angle Lots

**Heartland Village Specific Plan
Hemet, California**

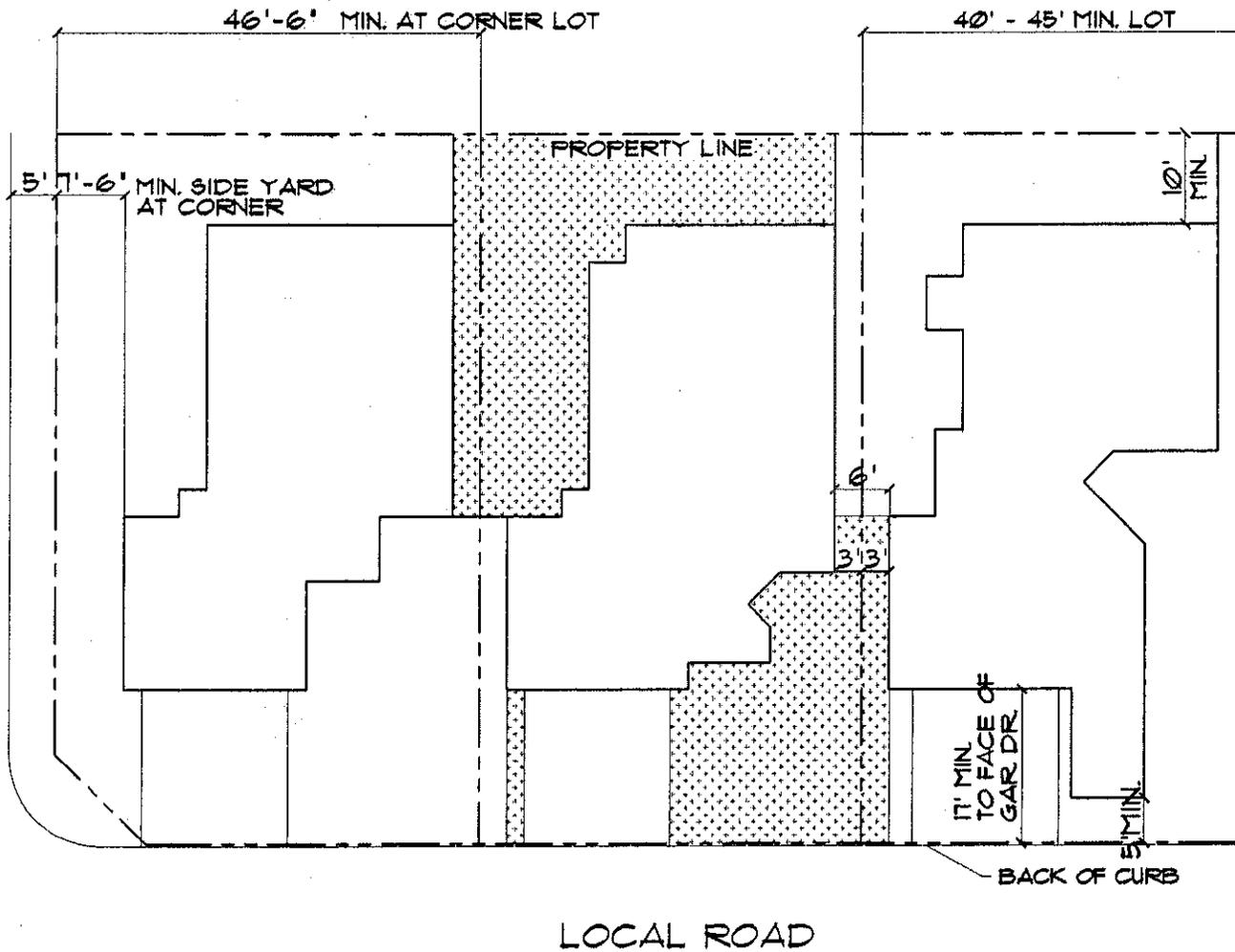
Heartland Village Property Hemet, California	
Map Scale: 1" = 20'	
HEARTLAND Land Strategies	2/99
Exhibit No.: 20	



Zero Lots

Heartland Village Specific Plan
 Hemet, California

Heartland Village Property Hemet, California	
Map Scale: 1" = 20'	
HEARTLAND Land Strategies	2/99
Exhibit No.: 21	

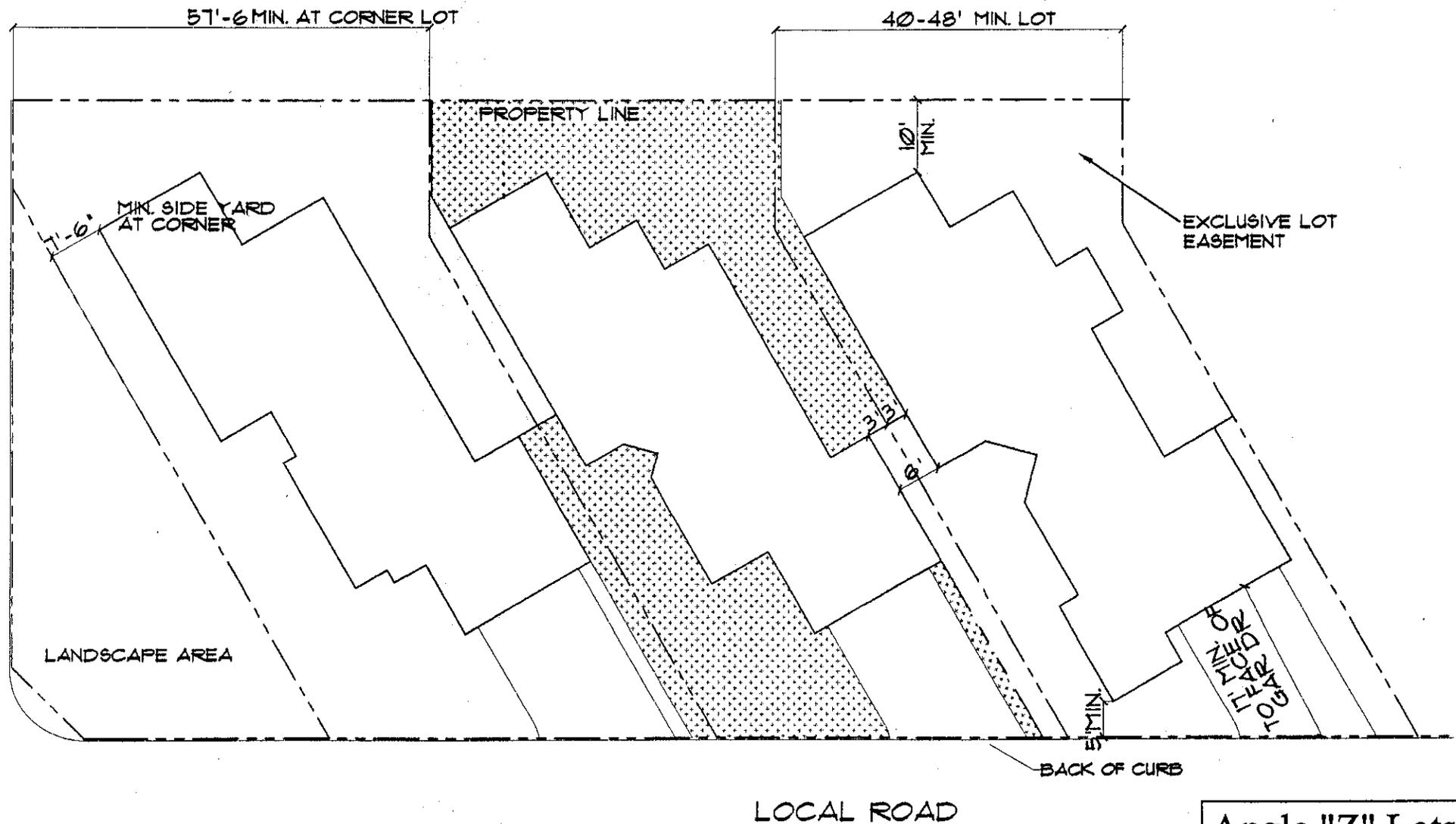


"Z" Lots

**Heartland Village Specific Plan
Hemet, California**

Heartland Village Property Hemet, California	
Map Scale: 1" = 20'	
HEARTLAND Land Strategies	2/99

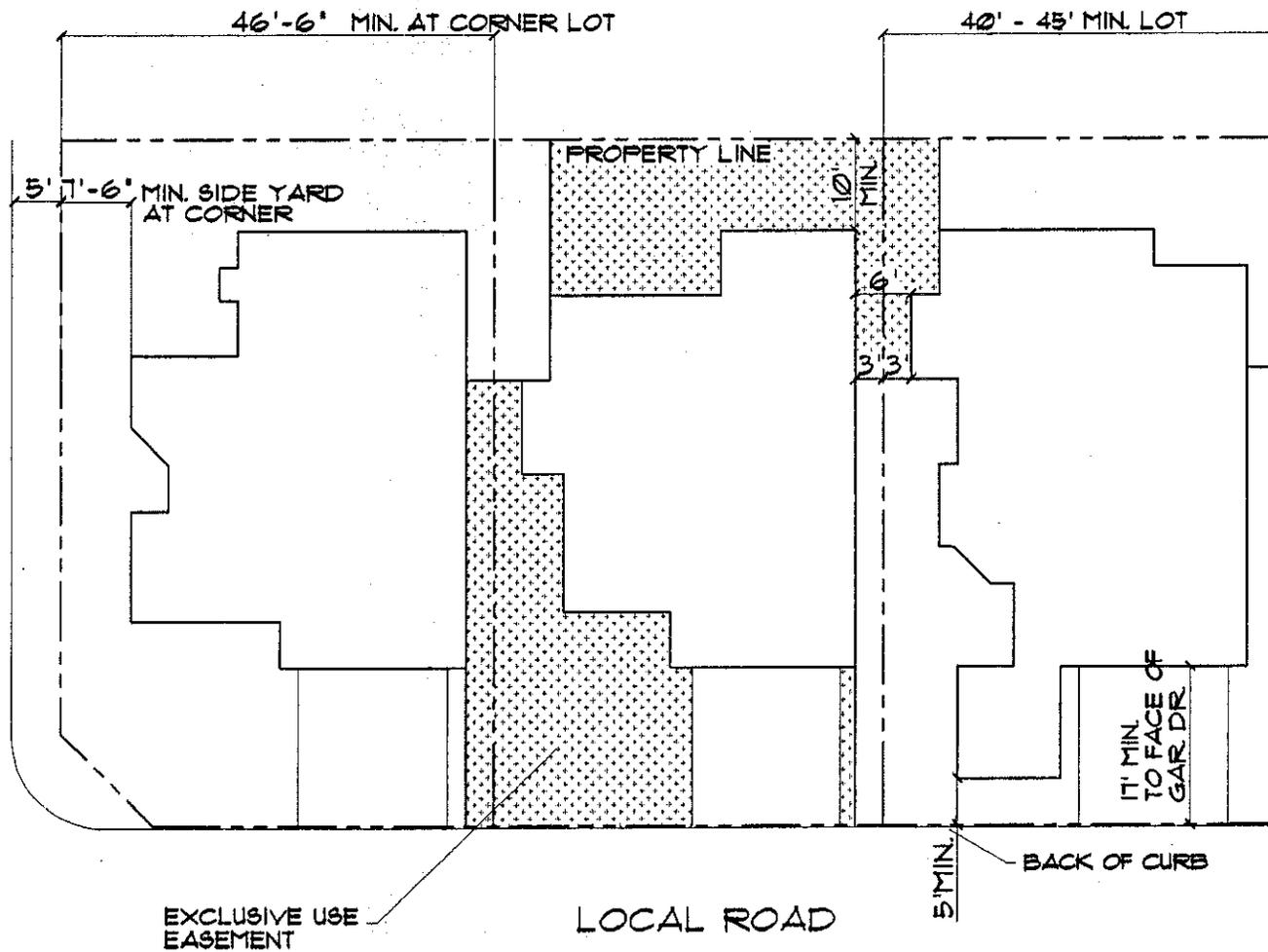
Exhibit No.: 22



Angle "Z" Lots

**Heartland Village Specific Plan
Hemet, California**

Heartland Village Property Hemet, California	
Map Scale: 1" = 20'	
HEARTLAND Land Strategies	2/99
Exhibit No.: 23	

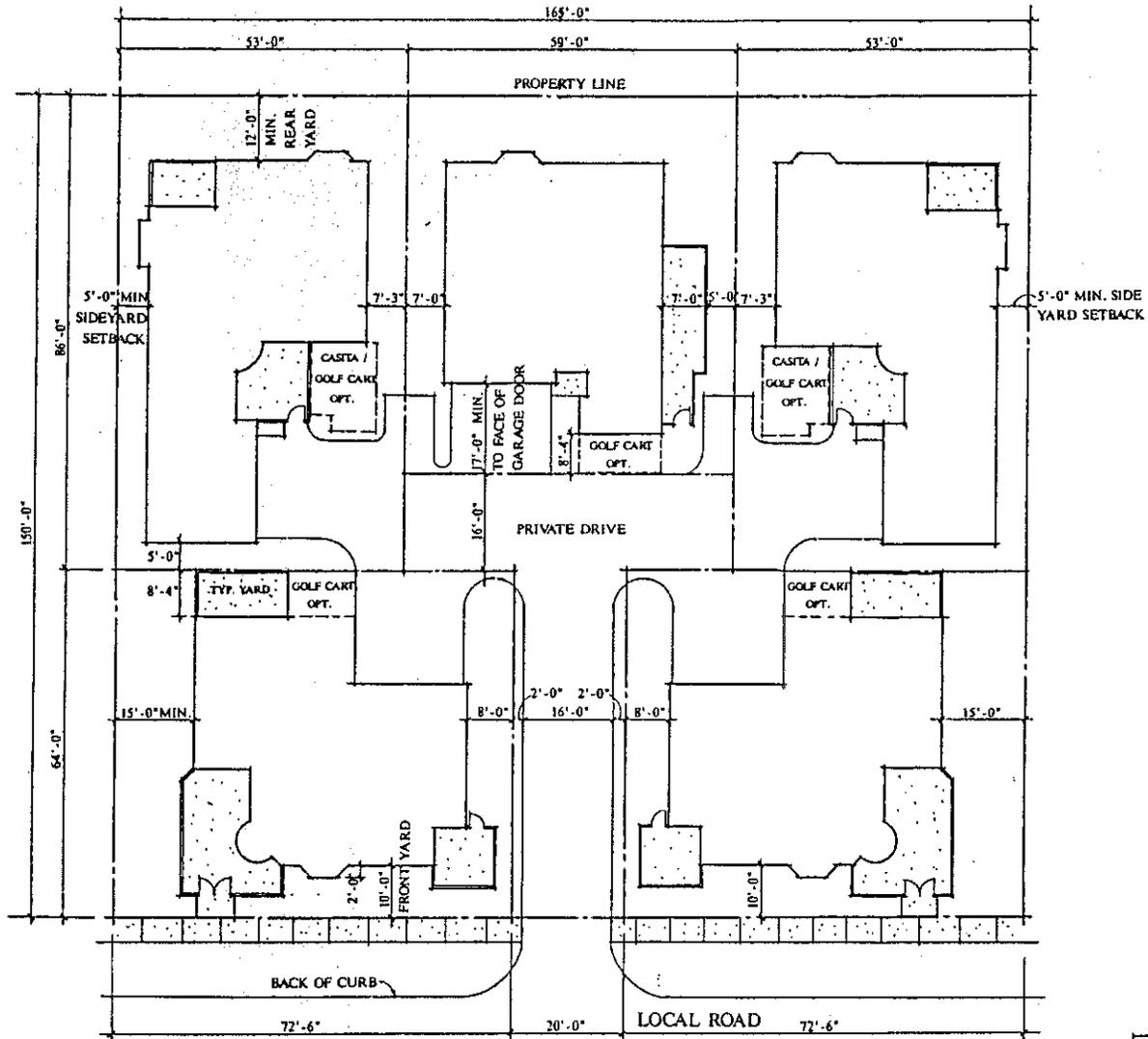


Patio Homes

**Heartland Village Specific Plan
Hemet, California**

Heartland Village Property Hemet, California	
Map Scale: 1" = 20'	
HEARTLAND Land Strategies	299

Exhibit No.: 24



HEARTLAND VILLAGE SPECIFIC PLAN
HEMET, CALIFORNIA

VILLAS

HEARTLAND VILLAGE PROPERTY HEMET, CALIFORNIA	
MAP SCALE: 1" = 10'	
HEARTLAND LAND STRATEGIES	10/99

EXHIBIT NO. 24-1

- a. Description - The Social Country Club facility servicing the age-restricted portion of the project is also located on 6.2 acres within the 12.2 acres comprising Planning Area 1.

The Social Country Club facility will be located along the two knolls near the westerly periphery of the project, overlooking the golf course and Florida Avenue. The design of the facility shall respect the natural terrain and integrity of the knolls. The architectural treatment for this facility will focus upon quality and prestige, to further enhance the project's function and character as an entryway into Hemet. The Social Country Club will be a private social club available to all residents of the age-restricted portion of the project.

The design of the Social Country Club site shall preserve and/or incorporate rock outcroppings and other natural features where possible.

2. Planning Area 2

A. Description - Detached Single-Family Residential and Villas

Planning Area 2 is proposed for the development of 91 single-family, detached homes and 75 Villas with a minimum lot size of 4,000 square feet. This Planning Area contains 19.7 acres with a density of 8.38 dwelling units per acre.

The Villas are designed as a cluster of five (5) single-family detached homes surrounding a shared courtyard. The residential product type which may be accommodated in this Planning Area includes angle lots, zero lot line lots, "z" lots, angle "z" lots, patio homes and Villas, as illustrated in Exhibit Nos. 20, 21, 22, 23, 24 and 24-1.

This Planning Area has been designed to take advantage of its substantial golf course frontage and views of the hillside.

3. Planning Areas 3A and 3B

A. Description - Weekender Multi-Family Residential in 3A and Detached Single-Family Residential in 3B

Planning Area 3A is proposed for the development of 88 "weekender" multi-family residential units that may be

initially used for the purpose of marketing the project to potential purchasers. Potential home buyers will be invited to visit the community to enjoy its recreational amenities and will stay in a multi-family complex. This Planning Area contains 6.3 acres with a density of 14 dwelling units per acre. These units may later be rented, sold or used for time share purposes.

Planning Area 3B is proposed for the development of 109 single-family, detached homes with a minimum lot size of 4,000-square feet comprised of 92 4,000-square foot lots and 17 4,500 square foot lots. This Planning Area contains 14.8 acres with a density of 7.4 dwelling units per acre.

The residential product type which may be accommodated in this Planning Area includes angle lots, zero lot line lots, "z" lots, angle "z" lots, patio homes and Villas, as illustrated in Exhibit Nos. 20, 21, 22, 23, 24 and 24-1.

The Planning Area 3 enclave, located in the northcentral portion of the development, is surrounded on three sides by the golf course resulting in a sense of open space for a substantial number of single-family lots and weekender units located on the perimeter of the enclave.

4. Planning Area 4

a. Description - Detached Single-Family Residential and Villas

Planning Area 4 is proposed for the development of 90 single-family, detached homes with a minimum lot size of 4,000 square feet comprised of 51 4,000-square foot lots and 39 4,500-square foot lots. In addition, this Planning Area is proposed for the development of 60 Villa units. Planning Area 4 contains 23.9 acres with an average density of 6.3 dwelling units per net developable acre.

This enclave of detached and Villa residences takes advantage of its proximity to the golf course and hillside open space areas, resulting in a sense of open space for most of its 150 residences.

The residential product types which may be accommodated in this Planning Area include angle lots, zero lot line lots, "z" lots, angle "z" lots, patio homes and Villas, as illustrated in Exhibit Nos. 20, 21, 22, 23, 24 and 24-1.

5. Planning Area 5

A. Description - Villas

Planning Area 5 is proposed for the development of 95 Villa units. As described earlier, the Villas are designed as a cluster of five (5) single-family detached residences surrounding a shared courtyard. The Planning Area contains 10 acres with a density of 9.5 dwelling units per acre.

This Planning Area has been designed to front on the community entry road from California Avenue with golf course exposure across the entry road to the north and direct golf course exposure on the southern perimeter of the Planning Area.

The residential product types which may be accommodated in this Planning Area include angle lots, zero lot line lots, "z" lots, angle "z" lots, patio homes and Villas, as illustrated in Exhibit Nos. 20, 21, 22, 23, 24 and 24-1.

6. Planning Areas 6, 7 and 8

A. Description - Non-Age-Restricted, Detached Single-Family Residential

Planning Areas 6, 7 and 8 are proposed for the development of 345 detached, non-age-restricted single-family residences with a minimum lot size of 5,200 square feet. Planning Area 6 is designed for 178 5,200-square foot lots. It contains 30.0 acres with a density of 5.9 dwelling units per acre. Planning Area 7 is designed for 88 6,200-square foot lots. This Planning Area contains 16.9 acres with a density of 5.2 units per acre. Planning Area 8 is designed for 79 6,200-square foot lots. This planning area contains 16.0 acres with a density of 4.9 units per acre.

Planning Areas 6, 7 and 8 have been designed as non-age-restricted lot product. These Planning Areas have been designed with three points of access: two on California Avenue and one just off the main Florida Avenue entrance to the project prior to the security gate for the active adult community. The Planning Areas are designed with cul-de-sacs and a 2.2-acre park fronting on Florida Avenue to minimize the impact of traffic noise and create a more appealing visual orientation for the project. Planning Areas

6, 7 and 8 have been designed with substantial frontage on the project's golf course which adjoins these enclaves to the north.

7. Planning Area 9

A. Description - Detached Single-Family Residential

Planning Area 9 is proposed for the development of 338 detached single-family residential lots on minimum lot sizes of 4,000 square feet comprised of 104 4,000-square foot lots, 142 4,500-square foot lots, and 92 5,000-square foot lots. The Planning Area contains 53.3 acres with a density of 6.3 dwelling units per acre.

The residential product types which may be accommodated in this Planning Area include angle lots, zero lot line lots, "z" lots, angle "z" lots, patio homes and Villas as illustrated in Exhibit Nos. 20, 21, 22, 23, 24 and 24-1.

8. Planning Area 10

A. Description - Detached Single-Family Residential

Planning Area 10 is proposed for the development of 232 detached single-family residential lots on lot sizes of 4,500 square feet comprised of 113 4,500-square foot lots and 119 5,000-square foot lots. The Planning Area contains 38.3 acres with a density of 6.1 dwelling units per acre.

The residential product types which may be accommodated in this Planning Area include angle lots, zero lot line lots, "z" lots, angle "z" lots, patio homes and Villas as illustrated in Exhibit Nos. 20, 21, 22, 23, 24 and 24-1.

9. Planning Area 11

A. Description - Detached Single-Family Residential

Planning Area 11 is proposed for the development of 108 detached single-family residential lots on lot sizes of 5,500 square feet. The Planning Area contains 19.8 acres with a density of 5.5 dwelling units per acre.

The residential product types which may be accommodated in this Planning Area include angle lots, zero lot line lots, "z" lots, angle "z" lots, patio homes and Villas as illustrated in Exhibit Nos. 20, 21, 22, 23, 24 and 24-1.

10. Planning Area 12

A. Description - Villas

Planning Area 12 is proposed for the development of 35 Villa units. This Planning Area contains 14.9 acres with a density of 2.3 units per acre. As described earlier, the Villas have been designed as a cluster of five (5) detached single-family residences surrounding a shared courtyard.

This planning area has been designed to take advantage of its spectacular hillside location offering panoramic views of the golf course and community.

The residential product types which may be accommodated in this Planning Area include angle lots, zero lot line lots, "z" lots, angle "z" lots, patio homes and Villas, as illustrated in Exhibit Nos. 20, 21, 22, 23, 24 and 24-1.

11. Planning Area 13

A. Description - Detached Single-Family Residential

Planning Area 13 is proposed for the development of 77 detached single-family residential lots on lot sizes of 5,000 square feet. The Planning Area contains 17.5 acres with a density of 4.4 dwelling units per acre.

The residential product types which may be accommodated in this Planning Area include angle lots, zero lot line lots, "z" lots, angle "z" lots, patio homes and Villas as illustrated in Exhibit Nos. 20, 21, 22, 23, 24 and 24-1.

12. Recreation, Association, RV Storage and Public Use Facility

A. Description - Project Administration and RV Storage Yard, and Public Use Facility

This component of the project provides for project administration and a facility for the convenient storage of recreational vehicles on a 3.7-acre site. In addition, a one-acre site has been provided for a public use facility, which could include a fire station (please refer to Exhibit No. 4).

These facilities have been located in a manner which allows access for customers and users without increasing traffic

volumes interior to the project. The office will be accessible from Devonshire Avenue or California Avenue, while the RV storage site will have access to Devonshire Avenue. The public use facility lot will be accessible from California Avenue.

13. Golf Course and Associated Golf Club

A. Description - Golf Course, Golf Club and Practice Range

This element of the project contains the project's 18-hole, approximately 6,700 yard, par 71 championship golf course on 175.6 acres of land, including fairways, greens, tees, and course hazards, designed to championship specifications; the golf club and maintenance facility on 5.9 acres; and the golf practice range on 14.0 acres. Exhibit No. 4, Specific Land Use Plan, describes the general layout of the golf course and related amenities.

The planning for the golf course involves a careful integration of championship golf course design and flood control. The principal design objective is to fully utilize the scenic nature of the backdrop mountains to provide a significant recreationally oriented open space amenity to the community and to provide maximum golf exposure for planned residences, while at the same time providing a practical method for protecting the watershed and resources. Furthermore, it is the objective of the golf course and club to provide a desirable and prestigious visual entry to the City of Hemet and to provide a visual and land use transition to the rural Reinhardt Canyon area to the north.

The golf club facility will be located at the corner of California Avenue and the project's main loop road. The golf course is designed in a "returning nines" configuration to enhance the golf experience for golf club members and non-members alike. The proposed location is suitable in that it will be accessible to non-resident golfers without the need to drive through the project's residential neighborhoods.

The project's golf practice (or "driving") range will be located on the east side of California Avenue across from the golf club.

(1) Implementing Approvals

- Prior to any golf course construction, a landscape plan must be approved by the Hemet Planning Director and a grading permit shall be approved and issued by the Hemet City Engineer.

14. Land Use Matrix

In Planning Areas 1 through 13, permitted and conditionally permitted uses shall be as listed within the "Land Use Matrix." Whenever a business is conducted, even if it is a home occupation, a city business license is required pursuant to Chapter 18 of the Hemet Municipal Code. Where a use is not listed, the provisions of Chapter 90 of the Hemet Municipal Code shall apply.

HEARTLAND VILLAGE SPECIFIC PLAN LAND USE MATRIX

PLANNING AREAS	1	2	3A	3B	4	5	6	7	8	9	10	11	12	13
A. Residential Uses														
1. Single-Family Dwellings	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2. Villas	P	P	P	P	P	P				P	P	P	P	P
3. Multi-Family Dwellings and Time Share Residences	P		P											
4. Assisted Care Facility			C											
B. Permitted Uses														
1. For Sale/Time Share	P	P		P	P	P				P	P	P	P	P
2. For Sale							P	P	P					
3. Rental/Time Share/For Sale			P											
C. Product														
1. Single-Family Dwelling	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2. Multi-Family Dwelling	P		P											
3. Time Share	P		P											
4. Angle Lots	P	P	P	P	P	P				P	P	P	P	P
5. Zero Line Lots	P	P	P	P	P	P				P	P	P	P	P
6. "Z" Lots	P	P	P	P	P	P				P	P	P	P	P
7. Patio Homes	P	P	P	P	P	P				P	P	P	P	P
8. Villas	P	P	P	P	P	P				P	P	P	P	P
D. Project Marketing Facilities														
1. Model home complexes, exhibiting all residential products available project-wide based upon the development standards for such products subject to staff approval in accordance with the requirements of Section E, Chapter III of this Specific Plan.	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2. Interior Design Centers/Escrow Office/Information Center/Rental Office	P		P											
3. Product Sales Centers/Design Center	P													
4. Hacienda/Hospitality House	P				P								P	
E. Public Uses ¹														
1. Public utility and public service substation, reservoirs, pumping plants and similar installations	P	P	P	P	P	P	P	P	P	P	P	P	P	P
F. Agricultural Uses														
1. Keeping of dogs or cats (over the age of four months) with a maximum total of two	P	P	P	P	P	P	P	P	P	P	P	P	P	P
G. Home Occupations														
1. Home occupations are subject to the approval of a Home Occupation Permit issued by the City of Hemet, the Homeowners' Association requirements and CC&Rs, or the HOA's bylaws, whichever is most restrictive.	P	P	P	P	P	P	P	P	P	P	P	P	P	P

¹ Public uses, other than those specifically identified for the Specific Plan, shall be permitted subject to review and approval by the City in accordance with the regulations set forth in the Hemet Zoning Ordinance. Impacts and mitigation measures associated with future public uses are the subject of this document, in a broad sense; however, the City may require further environmental assessment when the public use permits are filed. All proposals shall be reviewed for consistency with the intent of the Specific Plan in terms of land use compatibility and for consistency with Specific Plan standards and features as well as consistency with the General Plan.

P = Permitted Use
C = Conditionally Permitted Use

**HEARTLAND VILLAGE SPECIFIC PLAN
LAND USE MATRIX
(continued)**

PLANNING AREAS	1	2	3A	3B	4	5	6	7	8	9	10	11	12	13
H. Accessory Uses and Buildings														
1. Sheds and outbuildings, with a maximum size of 8' X 10' subject to CC&Rs	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2. Non-commercial community association recreation and assembly facilities and buildings	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3. Temporary Tract Sales and Interior Design offices and tract signs per City sign ordinance	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4. Private Club Facility servicing the age-restricted portion of the project	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5. Swimming pools and spas, accessory to a principal residential use	P	P	P	P	P	P	P	P	P	P	P	P	P	P
L. Miscellaneous Uses														
1. Re-sale real estate sales offices, including associated parking	C													

P = Permitted Use

C = Conditionally Permitted Use

E. Development Standards

The Heartland Village Specific Plan Development Standards serve as an important tool through which the City will review and evaluate schematic, preliminary and final drawings of each individual project to be built in the planned community. Such guidance is imperative to the design review function.

These Specific Plan (SP) District Regulations are adopted as part of the Specific Plan and are intended to implement and integrate the Hemet General Plan and the Heartland Village Specific Plan. These regulations set forth the development and use standards for all property within the Specific Plan by establishing:

- Setbacks;
- Building heights;
- Parking requirements;
- Landscape requirements;
- Use restrictions;
- Animal regulations;
- Density of development;
- Lot size, width and depth;
- Fencing requirements; and
- Signage regulations.

It is the intent of this Specific Plan document to allow as much design and development flexibility to the master developer as possible and still maintain the quality of the community. Therefore, the master developer may interchange product from one planning area to another allowing for a density transfer of up to 20 percent but not exceeding the maximum number of units for the project total of 1,775. This density and product transfer will require only a submission to planning staff of a project density retabulation for approval of the transfer.

The following table summarizes the principal development standards, by Planning Area, for the Heartland Village Specific Plan.

Heartland Village Development Standards

	P.A. #1	P.A. #2	P.A. #3A	P.A. #3B	P.A. #4	P.A. #5	P.A. #6	P.A. #7	P.A. #8	P.A. #9	P.A. #10	P.A. #11	P.A. #12	P.A. #13	
1. Minimum Lot Size ¹	4,000 sq.ft. 4,500 sq. ft. 5,000 sq.ft. Villa	5,200 sq.ft. 6,200 sq.ft.	5,200 sq.ft. 6,200 sq.ft.	5,200 sq.ft. 6,200 sq.ft.	4,000 sq.ft. 4,500 sq. ft. 5,000 sq.ft. Villa	4,000 sq.ft. 4,500 sq. ft. 5,000 sq.ft. Villa	4,000 sq.ft. 4,500 sq. ft. 5,000 sq.ft. 5,500 sq.ft. Villa	4,000 sq.ft. 4,500 sq. ft. 5,000 sq.ft. Villa	4,000 sq.ft. 4,500 sq. ft. 5,000 sq.ft. Villa						
2. Front Yard (min.) Setback from Back of Curb ² Garage (w/roll-up doors & automatic opener) Garage (w/roll-up door & automatic opener) Main House Garage (w/o roll-up doors) Multi-Family Garage ³	5' 5' 10' 17'	5' 5' 10' 17'	N/A N/A N/A 10'	5' 5' 10' 17'	5' 5' 10' 17'	5' 5' 10' 17'	5' 5' 10' 17'	N/A N/A 10' 17'	N/A N/A 10' 17'	N/A N/A 10' 17'	5' 5' 10' 17'	5' 5' 10' 17'	5' 5' 10' 17'	5' 5' 10' 17'	5' 5' 10' 17'
3. Side Yard Setback Interior Lots Corner Lots Zero Lot Line (1 side only)	3' 7.5' 10'	3' 7.5' 10'	N/A N/A N/A	3' 7.5' 10'	3' 7.5' 10'	3' 7.5' 10'	3' 7.5' 10'	5' 7.5' N/A	5' 7.5' N/A	5' 7.5' N/A	3' 7.5' 10'	3' 7.5' 10'	3' 7.5' 10'	3' 7.5' 10'	3' 7.5' 10'
4. Rear Yard Setback Main Residence Patios/Accessory Structures ⁴ Garages	10' 3' 0	10' 3' 0	N/A N/A N/A	10' 3' 0	10' 3' 0	10' 3' 0	10' 3' 0	10' 3' 0	10' 3' 0	10' 3' 0	10' 3' 0	10' 3' 0	10' 3' 0	10' 3' 0	10' 3' 0
5. Building Height (max)	35' 2-story	35' 2-story	45' 3-story	35' 2-story	35' 2-story	35' 2-story	35' 2-story	35' 2-story	35' 2-story	35' 2-story	35' 2-story	35' 2-story	35' 2-story	35' 2-story	35' 2-story
6. Off-Street Parking ⁵	2/unit enclosed	2/unit enclosed	N/A	2/unit enclosed	2/unit enclosed	2/unit enclosed	2/unit enclosed	2/unit enclosed	2/unit enclosed	2/unit enclosed	2/unit enclosed	2/unit enclosed	2/unit enclosed	2/unit enclosed	2/unit enclosed
7. Architectural Projections into Required Setbacks (side, rear and front)	2.5'	2.5'	N/A	2.5'	2.5'	2.5'	2.5'	2.5'	2.5'	2.5'	2.5'	2.5'	2.5'	2.5'	2.5'
8. Minimum Street Frontage - Flag, Knuckle and Cul-de-sac Lots	12'	12'	12'	12'	12'	12'	12'	N/A	N/A	N/A	12'	12'	12'	12'	12'
9. Lot Coverage (max.)	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%

¹ In order to allow for density flexibility and residential diversity without exceeding the maximum permitted Specific Plan density, the transfer of dwelling units from one residential planning area to another within the Specific Plan may be approved as part of the tentative map approval process. Transfers of density shall be based on evidence of any one of the following items: (a) that the proposed transfer would substantially improve spatial or functional relationships; (b) that the proposed transfer would materially increase the quality of the land use, circulation or conservation pattern thereof; (c) that the proposed transfer is necessary to achieve the maximum approved density of a planning area as a project; or (d) that the proposed transfer would improve the economic viability of the neighborhood. An increase in the number of dwellings must always be accompanied by a corresponding decrease in dwellings within another planning area. The use of this transfer method shall not result in an increase in dwelling units of more than 25 percent in any planning area. Any transfer of density from one planning area to another shall require the Planning Director's approval as part of the tentative map process at densities determined appropriate by the master developer. The Planning Director may decrease the minimum lot size within an individual planning area as long as the project's overall density is not exceeded. The decreased lot sizes shall still be required to meet the development standards of the applicable planning area, and the Specific Plan in general. The Planning Director's approval shall be based upon the proposal's consistency with the overall land use and design objectives of the Specific Plan.

² Front yard landscaping will be installed by developer for the Villa and Weekender product. All other front yard landscaping will be installed by the homeowner. Front yards shall be landscaped and shall consist predominantly of trees, plant materials, and ground cover, except for necessary walks, drives and fences. All required landscaping shall be permanently maintained in a healthy and thriving condition, free from weeds, trash and debris.

³ With respect to multi-family product, the minimum setback for a front-facing garage, which directly and perpendicularly faces the street, shall be 10 feet, while alternative setbacks for different design techniques may be permitted subject to plot plan approval.

⁴ Accessory structures include swimming pools, spas, patios, storage facilities, sheds and outbuildings.

⁵ Enclosed parking includes garages and carports. Carports will be allowed for the Weekender product only.

1. Planning Area Performance Standards

In all Planning Areas, the following performance standards shall be met:

- Equipment:

Air conditioners, heating, cooling, ventilating equipment and all other mechanical, lighting, or electrical devices shall be so operated and located so that they do not disturb the peace, quiet and comfort of neighboring residents and shall be visually screened, shielded and/or sound buffered from surrounding properties and streets. All equipment shall be installed and operated in accordance with all other applicable Ordinances. Heights of said equipment shall not exceed the required height of the zone in which they are located.

- Utilities:

All utility connections shall be designed to coordinate with the architectural elements of the site so as not to be exposed except where required by utility provider. Pad-mounted transformers and/or meter box locations shall be included in the site plan.

- Exterior Noise:

The acceptable outdoor noise exposure level, measured at the property line, for each residential district shall be in accordance with the Hemet Municipal Code.

2. Model Complex Requirements

Model home marketing complex means a sales complex consisting of not more than thirty models, a sales office and landscaping designed and used for the marketing of dwellings or lots until such time that the master developer elects to sell them for owner occupancy.

Notwithstanding any other provisions of this Specific Plan, after a tentative subdivision map has been approved, a model home marketing complex may be constructed within the area covered by the tentative subdivision map if all of the conditions of this section are complied with.

The owner or developer of land within a subdivision who desires to construct a model home marketing complex therein shall file three copies of the following for the approval of the planning director:

- The model home marketing complex site plan will include plot plans showing the proposed location and elevation of all models and all other structures proposed to be built, the location of roads, walks, parking areas and other improvements within the complex, and landscaping plans.
- An agreement and consent to judgment signed and acknowledged by both the owner and the developer guaranteeing that all land and improvements constructed as a part of the model home complex shall conform with the final subdivision map, where applicable, zoning and improvement plans, or guaranteeing that, if the final subdivision map is not recorded within 18 months from the date of the agreement or any authorized extension thereof, all of the improvements shall be removed at the sole cost of the owner thereof and the land restored to its former condition. The form of the agreement shall be approved by the city attorney before it is filed.
- A legal description of the area, including each individual lot within the subdivision upon which the model home marketing complex is to be constructed.

After the planning director has reviewed the plot plans for a model home marketing complex, he may approve, amend or disapprove the plot plans. In approving a model home marketing complex, the following findings shall be made:

- The design of the improvements:
 - Is consistent with the subdivision map conditions.
 - Is consistent with zoning requirements of the Specific Plan.
 - Will not adversely affect the public health, safety and welfare.
- Signs within the community will be developed consistent with the master developer's sign plan.
- There is adequate on-street or off-street parking.

F. Community Design Guidelines

1. Architectural Guidelines

a. Purpose and Intent

The objective of these Design Guidelines is to establish architectural design concepts for Heartland Village. The architectural styles and architectural concepts are intended to define a strong, consistent design direction and high level of quality.

An architectural review committee (ARC) shall be established by the master developer in conjunction with the master homeowners' association for the age-restricted component of the project. A set of design guidelines addressing residential community association common areas and recreation facilities shall be established by the ARC.

The master developer (under the project CC&Rs) is exempt from the guidelines established by the Homeowners' Association ARC and is governed solely by the provisions of this Specific Plan document as administered by the City of Hemet.

The purpose of these Architectural Guidelines is to express a sense of quality, establish a residential environment with a unique "sense of place," and to distinguish Heartland Village as an outstanding residential community.

The Architectural Guidelines will provide a basis for design consistency and will act as an instrument for review by the City of Hemet Planning Department of further project details as they are developed and will be used in conjunction with applicable Building Codes and Planning Regulations.

b. Architectural Concept

The purpose of this section is to establish the architectural character for Heartland Village and to define the context in which the individual builder/designer will be encouraged to create and innovate.

The specific architectural objectives are:

- The creation of a unified environment through cohesive relationships between architecture, landscape and site planning.
- The creation of architecture that expresses the strong indoor/outdoor relationships.
- Development of appropriate residential scale.

The golf clubhouse and Social Country Club will be complementary to the residential portions of Heartland Village and require architectural treatment compatible with the residential neighborhoods.

c. Relationship to and Coordination with Landscape Design

Landscaping plays a pivotal role in the streetscene. The selection of plant material and hardscape shall be compatible with the architectural theme. See landscape sections for more detail.

In the architectural design, careful consideration should be given to the use of patios, porches and balconies. Walls and gated entries should reinforce the architectural style. Enriched pavements for critical street intersections at major entry points or other locations where the master developer may deem appropriate are encouraged.

- Private Walls and Fences:

Fences and garden walls are encouraged to provide privacy, define entry space and provide security. When fences and walls are exposed to public view, they shall receive the same finish treatment as adjacent buildings. Landscaping shall be utilized to break up lengthy expanses of walls.

Fences and walls may vary in height and materials. Where fully or semitransparent fencing is required, steel may be used. Solid walls or fences at all side yards of corner lots and all rear yards shall be finished and harmonious with the exterior color palette of the residence. Security fences shall be constructed of chain link material.

d. Single-family Guidelines

All accessory buildings and structures shall be consistent with the main structure in materials, color palette, roof pitch and form. Implementation of the following concepts will create an enhanced streetscene and increase the overall value of the community:

- Repetitive Forms:

Architectural and site planning design which prevents repetitive forms and street scenes shall be encouraged. This can be accomplished by varying front setbacks, by using multiple architectural elevations, by recessing garage orientation and setbacks.

- Shadow Relief:

Every front building elevation should have shadow relief, popouts, overhangs and recesses; all may be used to produce effective shadow interest areas. Larger buildings require more shadow relief than smaller buildings.

- Multiple Elevations/Roof Variations per Plan:

Each plan shall have multiple (two or more) alternate elevations with roof variations (except Villas and multi-family). Reverse plans may also be used to add further variety.

- Garages and Parking:

Because of the dominance of garage doors, they should be simple and understated in their design. Carports shall only be allowed for the Weekender product located in Planning Area 3A. Open parking shall be incorporated where appropriate in the street design, i.e., cul-de-sacs and Villa product.

- Accessory Structures:

All buildings and other structures that are not directly attached to the residence shall be designed to blend with the architecture of the main structure and shall be integrated and screened with the landscaping, so as to not be visible from the street.

Patio structures, trellises, sun shades, gazebos and any other appurtenant improvements shall be consistent with the colors, materials and forms and shall be integral to the architecture of the house.

- Skylights:

Skylights, if employed, shall be designed as an integral part of the roof. Skylight glazing shall be clear, solar bronze or gray only. Skylight framing materials shall be bronze anodized or colored to match adjacent roof material.

- Sheet Metal, Flashing and Vents:

All flashing, sheet metal, downspouts, vent stacks and pipes will be colored to match adjacent materials and colors and concealed wherever possible.

- Lighting:

The design of lighting is especially important at Heartland Village. Illumination used for residential identification, security, pools and landscaping must be indirect and subdued. Indirect uplighting is preferred for landscaping and indirect downlighting is preferred for sources attached to structures.

- Antennas:

All antennas are restricted to the attic or interior of the residence. It is mandatory that all homes be pre-wired to accommodate cable reception.

- Pools and Spas:

Pools and spas shall be designed to not impact adjoining properties with light or sound. Pool heaters and pumps must be screened from view and sound insulated from neighboring houses. Private homeowner pools and spas shall be approved by the ARC.

- Remodeling and Additions:

Exterior remodeling and additions will be prohibited in the age-restricted portion of the community as exterior

maintenance may be the responsibility of the Homeowners' Association at developer's election. Interior modifications will be permitted subject to ARC approval and guidelines. Remodeling and additions to the age-restricted single-family detached product are allowed subject to ARC guidelines, CC&Rs, Association by-laws and consistent with construction options approved by the master developer or its assignee. The master developer and declarant are exempt.

e. Multiple-family Guidelines

The following items specifically address multiple-family structures (excluding attached single-family uses).

- Massing:

The parts of the project that are most visible to the public (primary elevations, entrances to buildings, courtyards, etc.) shall have more design attention in terms of detail, articulation of the facade and ornamentation.

- Site Design:

The site layout should be designed with collector and access streets that are occasionally curbed for variety. Building setbacks should vary. Avoid repetition of long building facades, particularly with similar elevation detailing.

- Project Entries:

Project entrances shall be clearly marked with special landscaping and a project monument. The main entrance should focus on the major recreation area or a special landscape feature.

- Parking:

Uncovered parking shall be well landscaped and screened. Parking "courts" should be used where possible.

- Balconies:

Patios and balconies shall provide space for outdoor living. Walls and gated entries shall reinforce the architectural style. The enclosure should be designed to screen items such as bikes, barbecues, etc., from the public view. Preferred materials are stucco and wood.

- Garages:

Garages, whether free-standing or connected to buildings, should have doors located in a manner to provide adequate distance from the edge of the street to insure an adequate driveway apron. Doors should be inset at least 12 inches for shadow relief on the façade. Long runs of garage doors shall have a variety of door designs and/or color variation.

- Carports:

Carports and individual storage facilities shall be clustered in bays of no more than 10 to 12 cars per side with landscaped area and walkways in between. The side walls shall be solid or semi-solid, and have landscaping to soften the blank wall. Supports shall appear solid and have vine pockets each 20 feet. The rear of the carports should provide direct access to units. Prefabricated metal carports should not be used.

- Mailboxes:

Multi-family mailboxes shall be integrated into an architectural form compatible in character to adjacent buildings. The builder shall coordinate the design and location of the mailbox structure with the U.S. Postal Service. Designs shall be submitted to and approved by the master builder.

- Fences/Walls:

Low walls in front and side yards may be used to extend the architecture and to create a sense of privacy. Wood, masonry and stucco may be used in "non-public" areas if painted to match wall color and screened by shrubs or vines.

- Trash Enclosures:

Each trash bin area shall be enclosed with a 6-foot-high wall and a solid gate consistent with City trash enclosure standards. The structure should be screened from above and below with trellises and landscaping. Access shall meet trash pick-up requirements.

- **Remodeling and Additions:**

Exterior remodeling and additions shall be prohibited in the multi-family product.

- **Mechanical Equipment:**

All mechanical equipment, condensers and utility meters shall be unobtrusive and shall be screened from main entrances, patios and decks. Screening shall be provided to create sight and sound buffer.

2. Landscape Guidelines

Heartland Village is a community nestled into a prominent hillside area. This natural character of the site shall be maintained and expanded through the landscape treatments of streetscapes, open space, golf course, paseos, and trail systems. All development adjacent to any undisturbed open space areas shall be buffered by a transitional native planting zone which will ultimately blend into the natural open space landscape. Along with the landscape plantings, the hardscape elements and architecture of the community will complement the natural setting. Through the implementation of these concepts into the native surroundings, the community shall not only reinforce but provide enhancement to the rural character of the project site.

a. Landscape Elements

Landscape elements serve an important role in the Heartland Village aesthetic quality as they establish an identity and an environmental character for the community. The landscape elements include:

1. Project Entries and Monumentation
2. Streetscapes and Parkways
3. Walls and Fences
4. Fuel Modification
5. Plant Palette

1. Project Entries and Monumentation

The project entries are identifiable landmarks at key community and neighborhood entry points throughout the project. They are made up of constructed monuments, landscaping and signage consistent with the Heartland Village image. See Landscape Concept Plan, Exhibit No. 25, for entry locations.

- Major Community Entry

The majority of the vehicular traffic entering Heartland Village will be from Florida Avenue (Highway 74/79) at the proposed intersection in the center of the site's southern boundary, Florida Avenue frontage. This area is a prime location for a "Community Entrance" statement and directional signage leading into the project (see Exhibit Nos. 26 and 27). The major community entry will convey a character consistent with the site's natural materials and features.

The statement will be achieved by maintaining the drainage course along Florida Avenue (Hwy 74/79) in a naturalized appearance and utilizing such materials as boulder outcroppings and bermed turf treatments. The master developer shall construct entry monuments which are consistent with the overall community design, including massed accent trees, shrubs and annual color beds.

The community entry statement may be further enhanced by incorporating decorative or enhanced paving at the drainage crossing terminating at the monument sign and boulder outcroppings.

- Secondary Community Entry

Heartland Village's secondary community entry will access from California Avenue at the project's eastern boundary. While this entry plays a subordinate role to the major community entry in terms of location and exposure from daily traffic, the intersection nonetheless represents a



Specific Land Use Plan

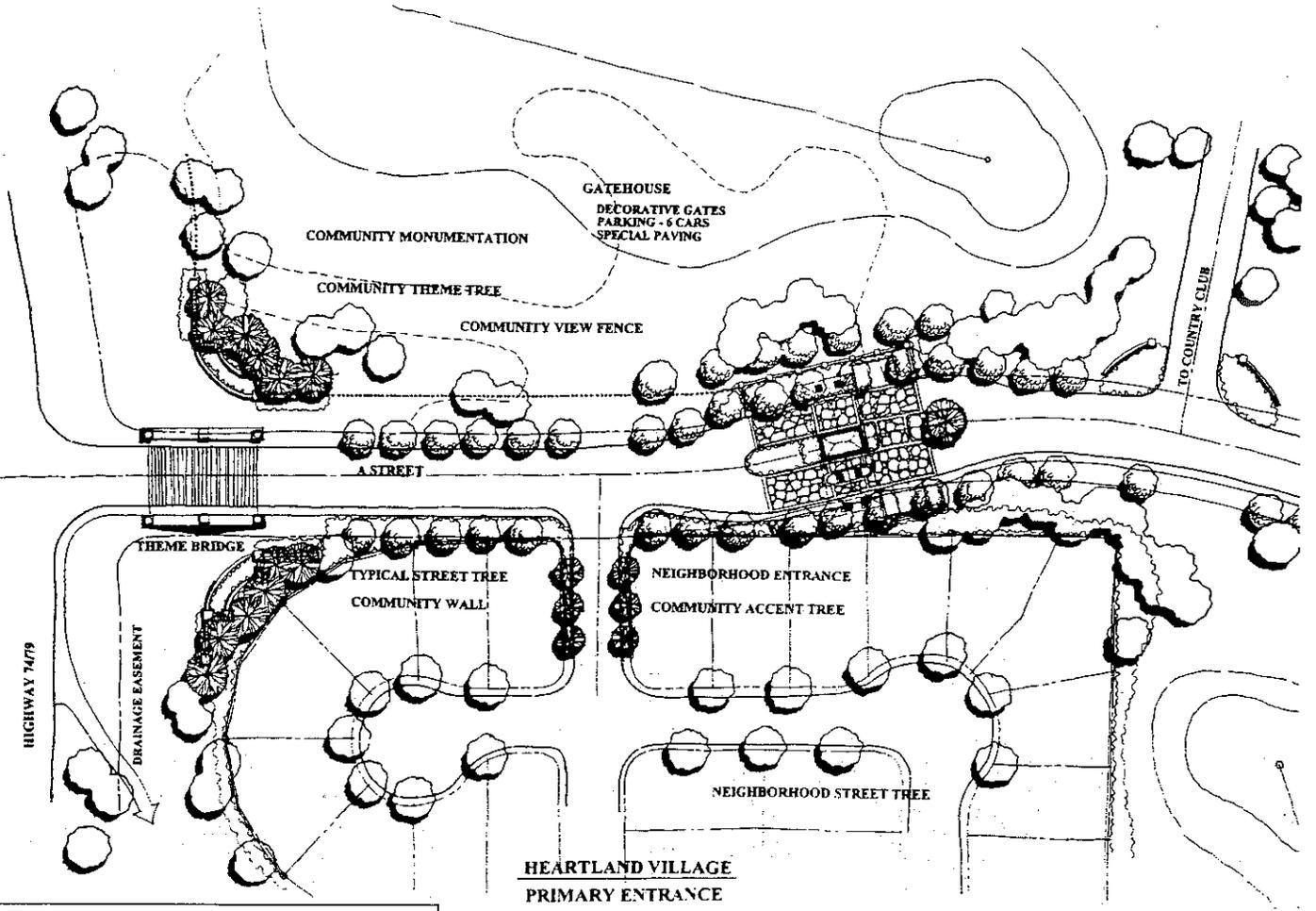
Planning Area	Acres	Product	Density	Total
1	6.0	5,000	5.2	26
2	19.7	6,000	5.2	5
		4,500	8.4	26
		4,500	8.4	65
3A	6.3	"VILLA"	8.4	75
3B	14.8	WEKKENDERS	14.0	88
		4,000	7.4	92
4	23.9	4,500	7.4	17
		4,000	6.3	52
		4,500	6.3	39
		"VILLA"	6.3	60
5	10.0	"VILLA"	9.5	95
6	30.0	5,200	5.9	178
7	16.9	6,200	5.2	88
8	16.0	6,200	4.9	79
9	53.3	4,000	6.3	104
		4,500	6.3	142
		5,000	6.3	92
10	38.3	4,500	6.1	113
		5,000	6.1	119
11	19.8	5,500	5.5	108
12	14.9	"VILLA"	2.3	35
13	17.5	5,000	4.4	77
Subtotal	287.4			1,775

Country Club	6.2			
Clubhouse	5.9			
Maintenance				
RV Administration	3.7			
Driving Range	14.0			
Park	2.2			
City	1.0			
Golf Course	175.6			
Landscape	25.5			
Open Space	126.2			
Backbone Streets	10.3			
Street Dedication	1.4			
Detention	5.6			
Total	665.0		3.0	1,775

Hole	Par	Length
1	5	535
2	4	410
3	4	385
4	3	175
5	4	440
6	4	425
7	3	150
8	4	385
9	4	465
Out	35	3370
10	5	586
11	4	410
12	4	415
13	5	500
14	3	145
15	4	330
16	4	365
17	3	185
18	4	435
In	36	3371
Total	71	6741

Landscape Concept Plan

Exhibit No. 25



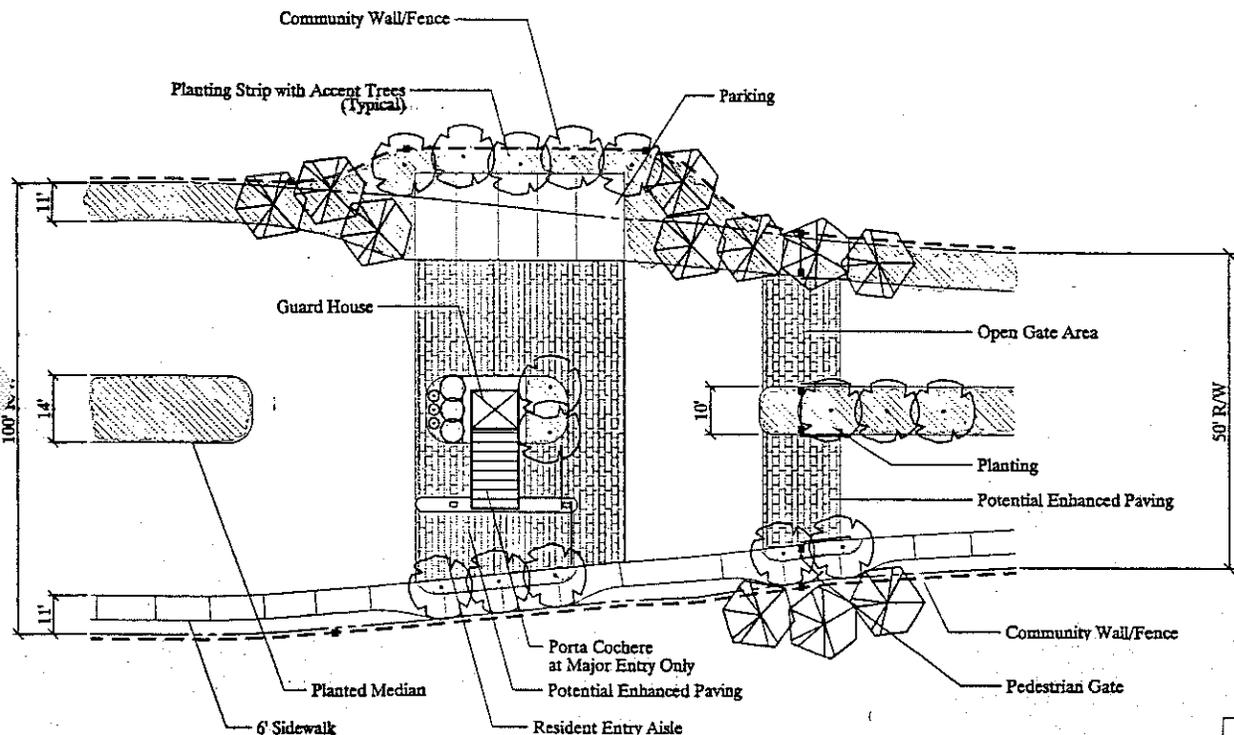
**HEARTLAND VILLAGE
PRIMARY ENTRANCE**

SCALE 1" = 40' 3/4/99

This exhibit is for illustrative purposes only. The master developer reserves the right to modify final plans, specifications and notations.

This exhibit is for illustrative purposes only. The master developer reserves the right to modify final plans, specifications and notations.

Private Entry Gate Plan



Heartland Village Specific Plan Hemet, California

Heartland Village Property Hemet, California
Map Scale: Not to Scale
HEARTLAND Land Strategies

Exhibit No. 27

significant market entry. As such, the secondary community entry shall convey the same character as the major community entry. This approach shall provide a consistent theme and sense of arrival into the Heartland Village. See Exhibit Nos. 27 and 28.

- **Neighborhood Entries**

Primary Neighborhood entries occur typically at street intersections along the primary loop road or at interface areas with adjacent land uses or planning areas. See Landscape Concept Plan, Exhibit No. 29, and Neighborhood Entrance Plan, Exhibit No. 30.

These entries may suggest more individualized neighborhood statements as arrival points from the main road to the neighborhood enclaves. The construction materials such as boulder outcroppings, massed accent trees and informal shrub massing, bermed turf parkway and signage are the common denominators with the Project Monumentation and Community Entries.

2. Streetscapes and Parkways

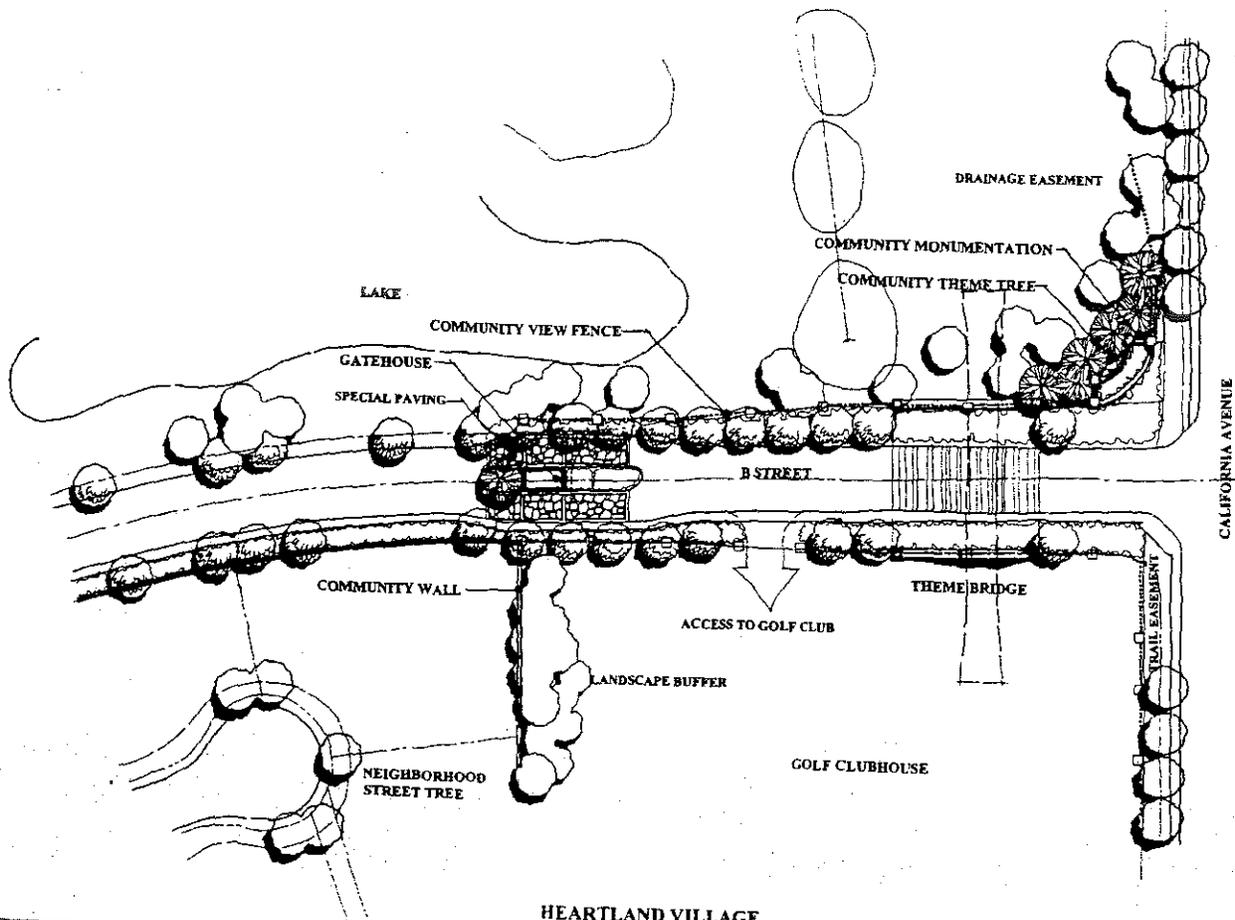
The landscape treatments for all streetscapes and parkways within Heartland Village shall create a unifying theme while establishing identifiable landscape corridors for all roads and residential streets.

The street tree planting within public parkways shall be sized per the City of Hemet standards.

Residential streets shall utilize street trees adjacent to the curbs. The street scenes in the residential areas will create individual street characters for each of the neighborhoods through varying tree species.

3. Walls and Fences

A variety of walls and fences have been designed to provide project theme continuity throughout Heartland Village and offer solutions for a range of fencing conditions. Exhibit No. 31 illustrates the



This exhibit is for illustrative purposes only. The master developer reserves the right to modify final plans, specifications and notations.

**HEARTLAND VILLAGE
SECONDARY ENTRANCE**

SCALE = 1" = 40' 3/4/99



Specific Land Use Plan

Planning Area	Acreage	Product	Density	Total
1	6.0	5,000	5.2	26
2	19.7	4,000	5.2	5
		4,500	5.4	65
		"VILLA"	5.4	75
3A	6.3	WEEKENDERS	14.0	88
3B	14.8	4,000	7.4	92
		4,500	7.4	17
4	23.9	4,000	6.3	32
		4,500	6.3	39
		"VILLA"	6.3	60
5	30.0	"VILLA"	9.5	95
6	30.0	5,200	5.9	178
7	16.9	6,200	5.2	88
8	16.0	6,200	4.0	79
9	53.3	4,000	6.3	104
		4,500	6.3	142
		5,000	6.3	92
10	38.3	4,500	6.1	123
		5,000	6.1	119
11	19.8	5,500	5.5	108
12	14.9	"VILLA"	2.3	35
13	17.5	5,000	4.4	77
Subtotal	287.4			1,775

Country Club	6.2			
Clubhouse	3.9			
Maintenance				
SW Administration	2.7			
Driving Range	14.0			
Park	2.3			
City	1.0			
Golf Course	175.6			
Landscape	25.1			
Open Space	126.2			
Access Streets	10.2			
Street Dedication	1.4			
Detention	1.6			
Total	665.0		3.0	1,775

Hole	Par	Length
1	3	135
2	4	410
3	4	305
4	3	175
5	4	440
6	4	425
7	3	150
8	4	395
9	4	465
Out	35	3270
10	5	555
11	4	410
12	4	415
13	5	500
14	3	145
15	4	330
16	4	365
17	3	185
18	4	425
In	36	3371
Total	71	6641

Landscape Concept Plan

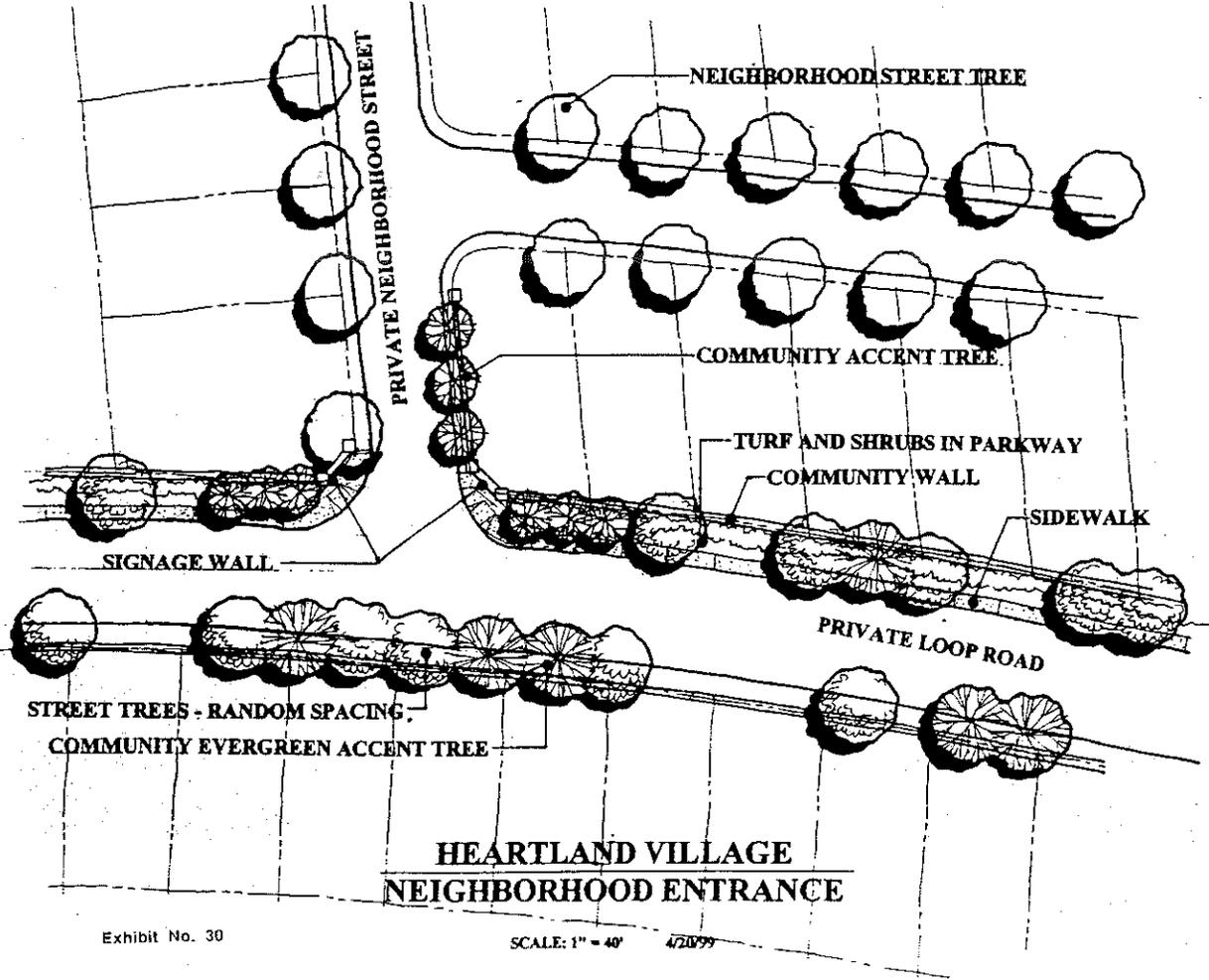


Exhibit No. 30

SCALE: 1" = 40' 4/20/99

community wall and fence plan and Exhibit No. 32 shows the wall and fence elevations.

- Community Walls

These walls are located adjacent to major roads throughout the community. These walls shall be a combination of solid block material and tubular steel view fencing and serve both as a noise buffer and a privacy barrier for the homes in close proximity to the arterial streets. The construction materials for the community walls include concrete masonry block materials and tubular steel or other new or innovative material as may be determined by the master developer.

Pilasters shall be located at random intervals as determined by the developer and landscape architect.

- Security Fences

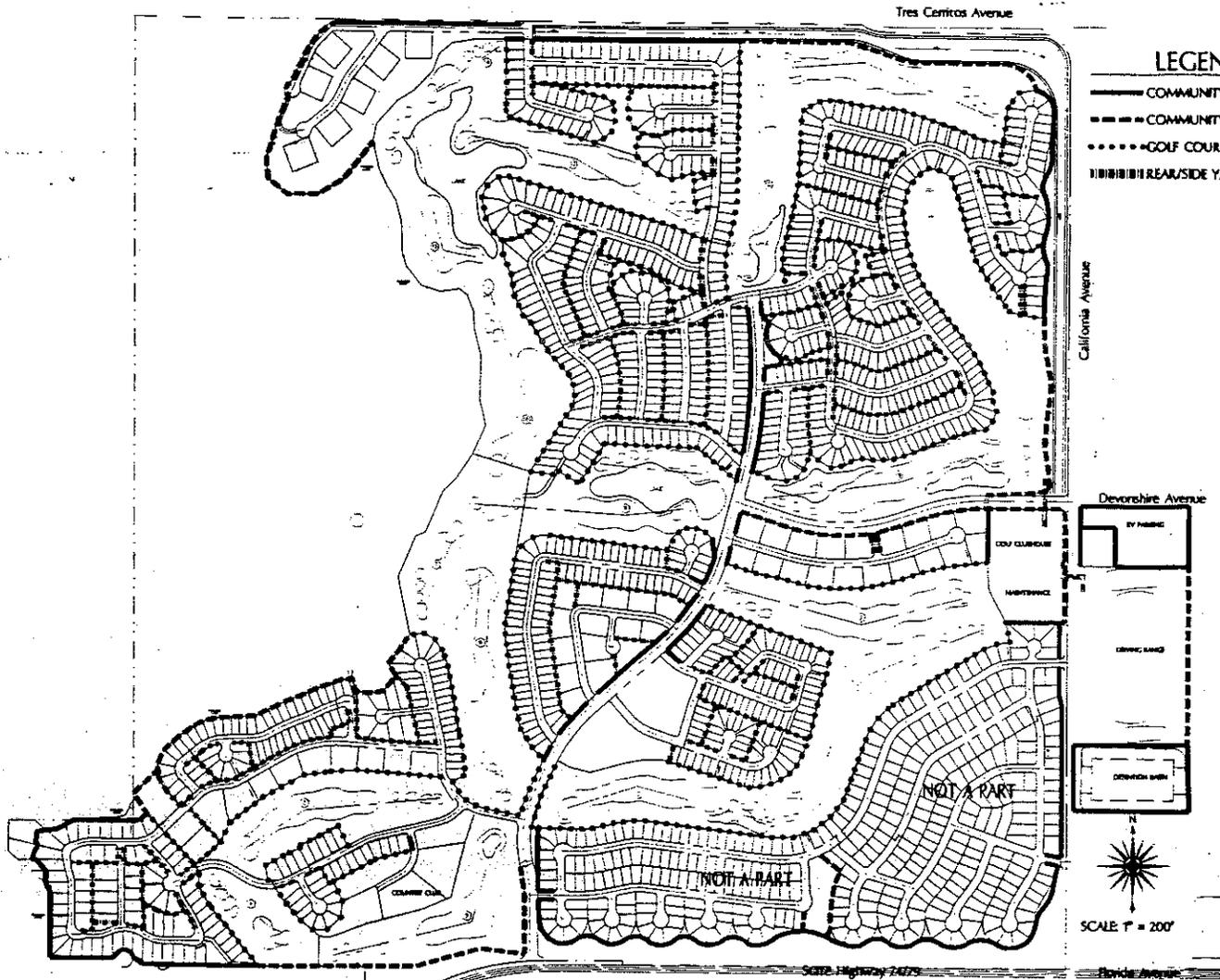
These fences may be located at the rear and sides of yards, and planning areas which adjoin the Lakeview Mountains open space area. The fences shall be steel link and/or tubular steel and used to provide perimeter security for the project in areas which are not generally visible from public streets.

- Community View Fence

The open view element of the community fence directs this design to incorporate low walls and/or tubular steel and pilasters in various combinations and materials as determined appropriate by the master developer. The fencing may be used at all rear lot property lines where views to the golf course and open space are available. Pilasters may be typically located at random intervals as determined by the developer and landscape architect. See Wall and Fence Plan, Exhibit No. 31, and the Fence Elevation in Exhibit No. 32.

- Corner Walls

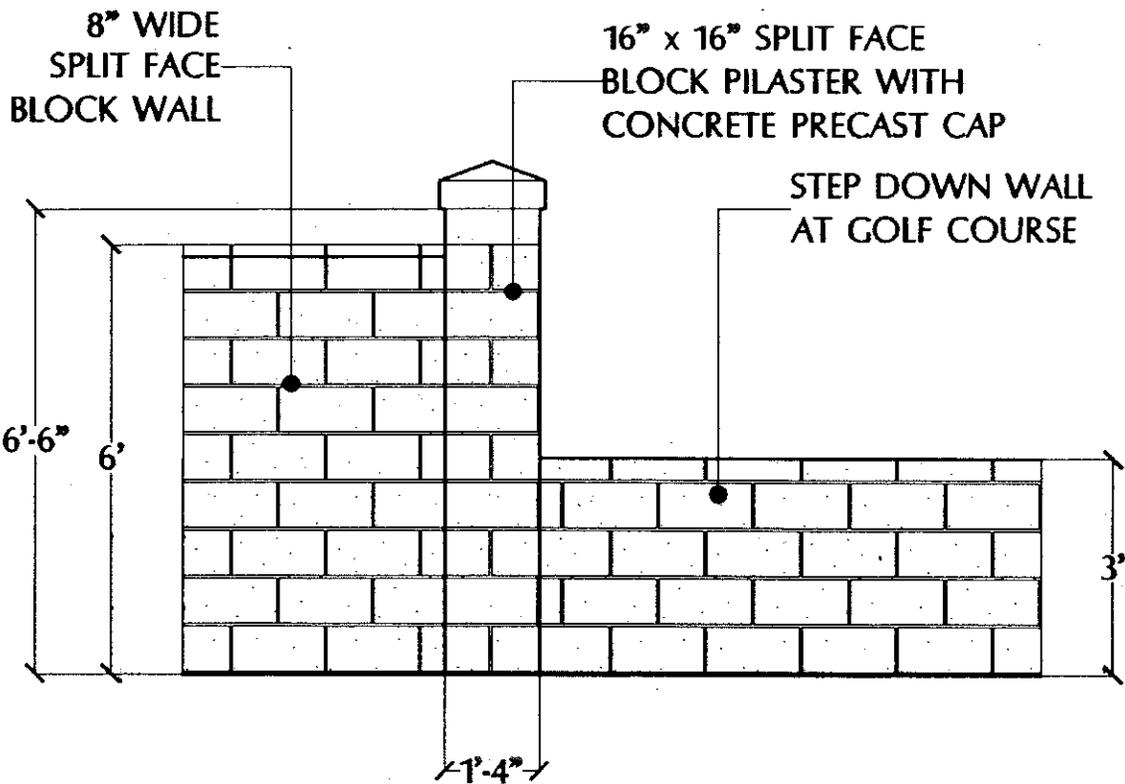
All residential corner lot homes throughout the community will have a community wall



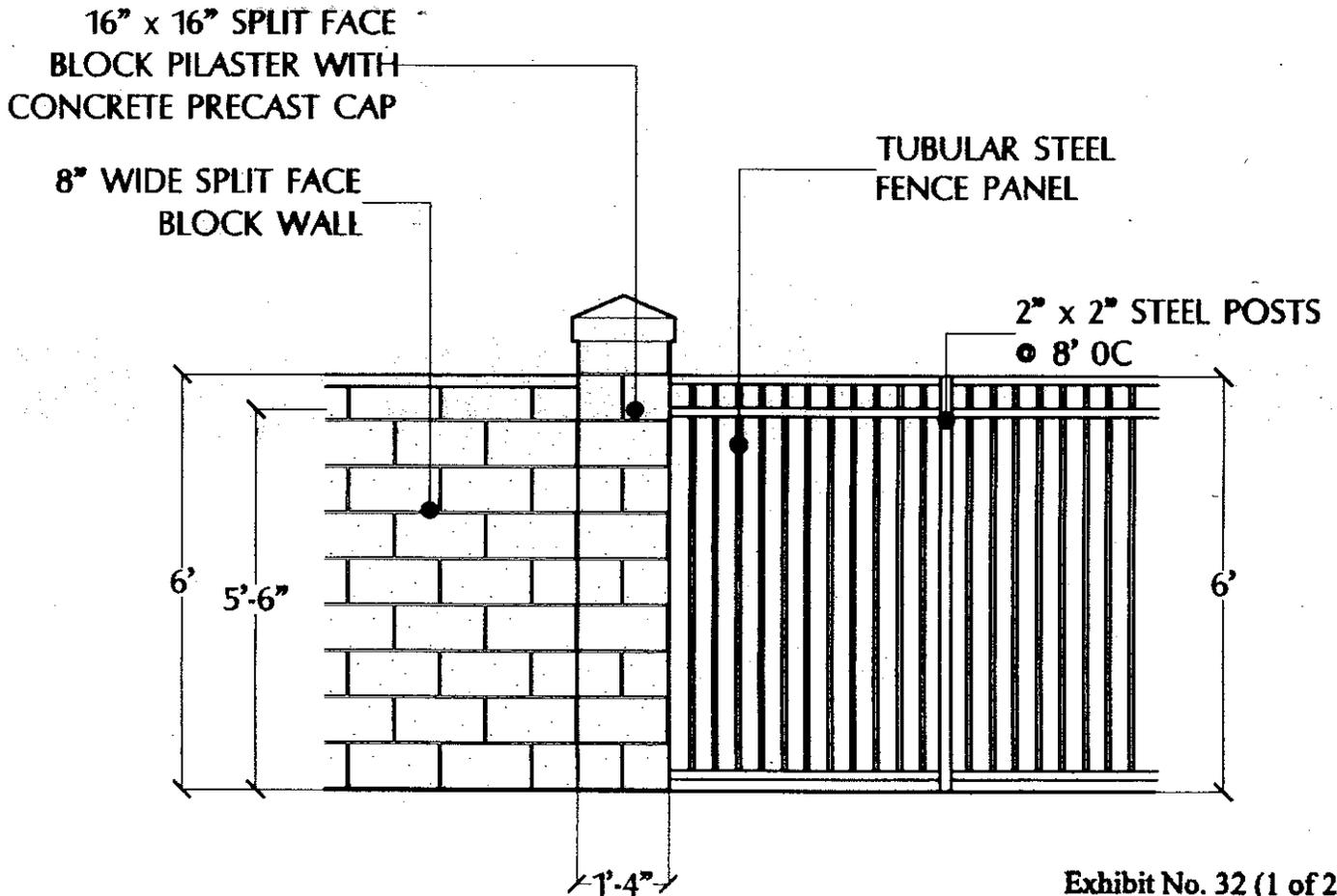
HEARTLAND VILLAGE

Exhibit No. 31

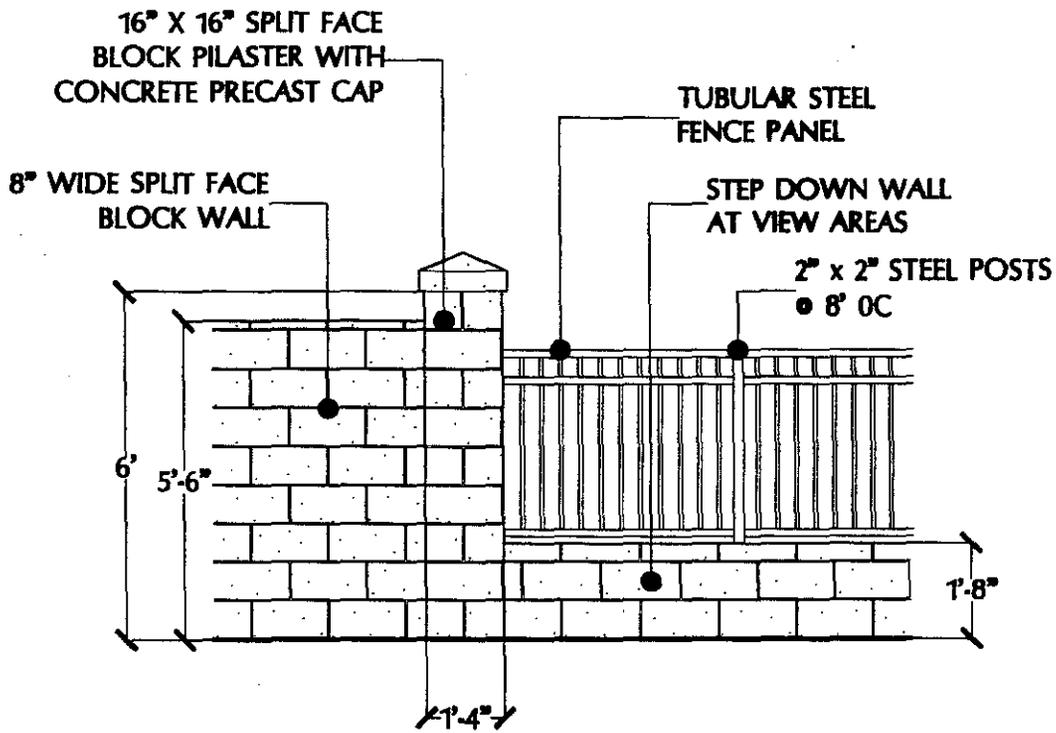
WALL AND FENCE PLAN



FENCE AT GOLF COURSE
SCALE 3/8" = 1'-0"

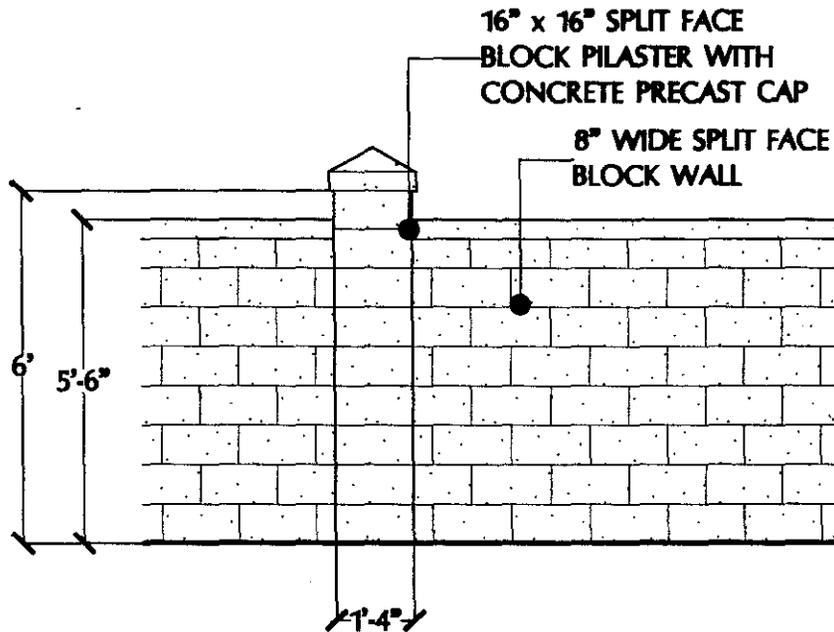


COMMUNITY VIEW FENCE
SCALE 3/8" = 1'-0"



COMMUNITY VIEW FENCE

SCALE 1/2" = 1'-0"



COMMUNITY WALL

SCALE 1/2" = 1'-0"

paralleling the main street along the lot property lines. In some instances, these walls may be retaining. In all cases, the walls shall be located in such a manner as to maintain visibility for automobiles.

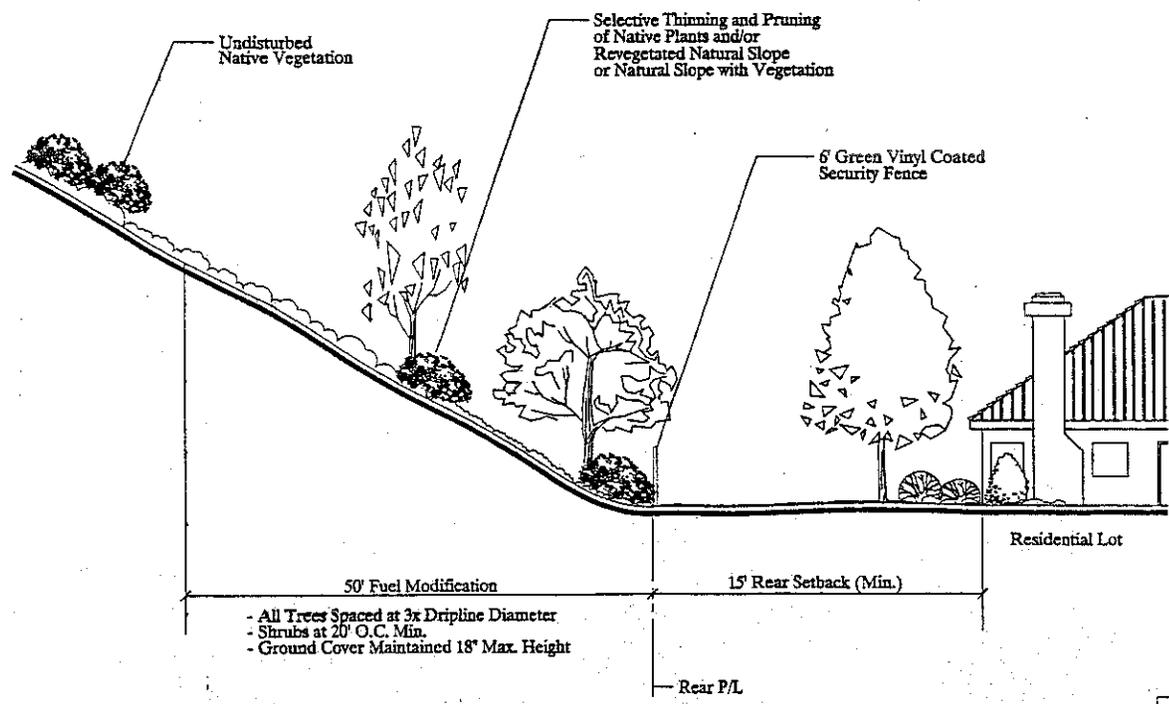
General Community Walls and Fencing Standards:

- Walls placed around Private Patio Enclosures within multi-family areas will be constructed of materials that both reinforce, are consistent with the architectural character, and maintain continuity with community theme wall and fence designs.
- Fencing located between single-family homes, where common side yard property lines occur, may be constructed of wood, tubular steel, block or other new or innovative material and will be consistent with the established community character as determined by the master developer.
- Homes overlooking the golf course may be provided with low walls along with tubular steel view fence or fencing made of all tubular steel or other new or innovative material to maintain a low profile for privacy, and enhance view potentials.
- Long runs of fencing and walls may be broken up with landscaping through clinging vines and shrub massings. Undulating and offset walls are encouraged to avoid visual monotony.

4. Fuel Modification

A fuel modification zone has been established for the area depicted on Exhibit No. 33. Within this area, specific fire safety design standards for site planning, architecture, and landscaping shall be implemented to mitigate any fire hazard that may exist between the development and the native vegetation. The golf course is considered mitigation when it abuts the fuel modification zone.

Fuel Modification
Cross Section



Heartland Village Specific Plan
Hemet, California

Heartland Village Property Hemet, California
Map Scale: Not to Scale
HEARTLAND Land Strategies

Exhibit No. 33

- Fuel Modification Zone

This area is characterized by undisturbed native vegetation on the slope areas adjacent to Heartland Village. This zone is typified by undeveloped open space areas where the natural grades are uphill and steep. Refer to Landscape Concept Plan, Exhibit No. 29, and Fuel Modification Section, Exhibit No. 33.

This fuel modification zone shall extend for a minimum of fifty (50) feet beyond the rear yard property line of the residences. There shall be a 30-foot zone on all single loaded streets in the uphill areas. Both zones shall include the requirements listed below.

- Provide vehicular access to the modification zone from adjacent streets at intervals of not more than 1,500 feet apart. Also refer to fire equipment access requirements below.

- Architecture

The row of houses immediately adjacent to the modification zone shall be designed of the following standards:

- Setbacks from the rear property line on lots adjacent to the modification zone shall be 15 feet.
- Slant roof lines to facilitate the movement of heat over the house.
- Class A roofing materials shall be required.
- Rear yard structures shall be constructed of a non-flammable material or approved by the Hemet Fire Department.
- Stucco or other non-flammable siding material of at least one hour fire resistance rating shall be used.

- Landscaping

The undisturbed slope areas within fuel modification zones shall be treated in the following manner:

- Remove all natural vegetation with a high fire hazard classification, dead brush and trees. Refer to plant list in this section.
 - Prune any specimen trees to reduce the amount of potential fire fuel and keep the trunk areas clear of branches up to a minimum of 6 feet above ground.
 - Prune all remaining plant species to a maximum height of eighteen (18) inches. In areas where the natural slope is 2:1 or greater, some larger shrubs and trees shall remain to reduce the hazard of slope failure. Trees that remain must be spaced at three (3) times their diameter and the branches pruned to a minimum of six (6) feet off the ground. Shrubs that remain must be no closer than twenty (20) feet on center.
- Manufactured slopes within Modification Zone 2:
 - Plant all manufactured cut or fill slopes with plant materials of fire retardant and low fuel volume characteristics. Refer to Plant lists B1 and C1, which list may be expanded by additional trees and plant materials possessing the same characteristics.
 - Except for trees and larger shrubs of a fire safe nature, (planted for slope stabilization), maintain all other plantings to a maximum height of eighteen (18) inches.

Table No. 8
Fuel Modification Plant List for Heartland Village

Plant List A1
High Fire Hazard Native and Introduced Species

Botanical Name	Common Name
Adenostema fasciculatum	Chamise
Adenostema sparsifolium	Red Shanks
Artemisia californica	California Sagebrush
Bamboos	Cedars
Cedrus species	Cypress
Cypressus species	Common Buckwheat
Eriogonum fasciculatum	Eucalyptus
Eucalyptus species	Junipers
Pinus species	Pines
Rosemarinus species	Rosemary
Salvia species (except as noted below)	Sage

Plant List B1
Low Growing Native Species,
Moderate to High Fire Retardance

Botanical Name	Common Name
Eriophyllum species	Yarrow
Eschscholzia californica	California Poppy
Lotus scoparius	Deerweed
Lupinus species	Annual Lupines
Minulus species	Monkey Flower
Penstemon species	Penstemon
Salvia colubariae	Chia
Salvia sonomensis	Creeping Sage
Trichostema lanatum	Wooly Blue Curls
Zauschneria species	California Fuchsia

Plant List C1
Low Growing Introduced Species,
High Fire Retardance (Under 3 Feet Tall)

Botanical Name	Common Name
Carpobrotus species	Sea Fig
Delosperma alba	White Trailing Ice Plant
Drosanthemum floribundum	Rosea Ice Plant
Lampranthus spectabilis	Trailing Ice Plant
Malephora crocea	Croceum Ice Plant
Santolina chamaecyparissus	Lavendar Cotton
Santolina virens	Green Santolina

Originally Approved by
Riverside County - 1983
Adopted by Hemet Ord. 1274 - 4/12/88
Amended by Ord. 1397 - 10/9/90
Amended by Ord. 1541 - 5/14/96
Amended by Ord. 1605 - 8/13/99

Heartland Village
Specific Plan

Chapter III
Page 61

Table No. 8 continued...

Low Growing Introduced Species,
Moderate Fire Retardance (Under 3' Tall)

Botanical Name	Common Name
Acacia ongerup	Acacia
Arctotheca calendula	Cape Weed
Artemisia caucasica	Caucasian Artemisia
Atriplex cuneata	Castlevally Saltbush
Atriplex semibaccata	Creeping Saltbush
Baccharis pilularis	Prostrate Baccharis
Ceanothus griseus horizontalis	Carmel Creeper Ceanothus
Cistus crispus	Rockrose
Cistus salvifolius	Sageleaf Rockrose
Gazanis rigens leucolaena	Trailing Gazania
Lippia canescens	Lippia
Myoporum parvifolium	Myoporum
Osteospermum fruticosum	African Daisy
Trifolium fragiferum	O'Connors Legume
Vinca species	Periwinkle

Acceptable Trees and Shrubs
(Over 3' Tall)

Botanical Name	Common Name
Arctostaphylos species	Manzanita
Ceratonia siliqua	Carob
Cistus Villosus	Purple Rockrose
Heteromeles arbutifolia	Toyon
Laurus Nobilis	Sweet Bay
Pittosporum species	Pittosporum
Platanus racemosa	California Sycamore
Quercus agrifolia	Coast Live Oak
Robinia pseudoacacia	Black Locust

• Fire Department Equipment Access Requirements

Whenever access into private property is controlled through the use of gates, barriers, guard houses or similar means, provisions shall be made to facilitate access by emergency vehicles in a manner approved by the Fire Department. All controlled access devices that are power operated shall have a radio controlled over-ride system capable of opening the gate when activated by a

special transmitter located in emergency vehicles. All controlled access devices that are not power operated shall also be approved by the Fire Department. Minimum operating width shall be twelve (12) feet with a minimum vertical clearance of thirteen (13) feet six (6) inches.

5. Plant Palette

The following palette of plant materials is intended to provide a guideline for material selection for each of the landscaped situations at Heartland Village. The palette has been created to give greater continuity to the community landscape treatments while providing a selected list of plants that are appropriate not only to the project design theme but to the climatic and soil conditions, and the concern for water conservancy and maintenance.

The plant lists have been categorized into identifiable landscape areas, each having specific landscape requirements. The plants found on each of the lists are compatible with each other and consistent with the overall community theme. The plant materials also have characteristics that make them appropriate for their specific landscape uses. The following are categories for the different landscape treatment areas in Heartland Village:

- Community Entries and Monument
- Neighborhood Entry Areas
- Landscape Buffers and Slopes
- Street Trees
- Recreation Area
- Fuel Modification Zone
- Community Entries and Monuments

The Heartland Village community entries and monument areas are located in prominent visual areas and create statements of arrival and community identity. The planting for these areas shall be designed to establish the landscape theme for entire community.

The landscape shrub and tree size shall be specified by the project landscape architect and approved by the City of Hemet prior to installation.

Table No. 9
Heartland Village Plant Palette

Plant List "A"

Botanical Name	Common Name
Trees:	
Pistacia chinensis	Chinese Pistache
Lagerstroemia indica	Crape Myrtle
Pinus species	Pine
Platanus species	Sycamore
Quercus species	Oak
Schinus molle	California Pepper
Shrubs:	
Abelia grandiflora	Glossy Abelia
Agapanthus africanus	Lily of the Nile
Cistus	Rockrose
Cocculus laurifolius	Laurel-leaf Cocculus
Dietes vegetus	Fortnight Lily
Escallonia fradesii	Escallonia
Euonymus species	
Gamolepis chrysanthemoides	
Hemerocallis hybrid	Day Lily
Ligustrum species	Privet
Raphiolepis indica	Indian Hawthorne
Santolina species	Lavender Cotton
Viburnum species	
Vines:	
Clytostoma callistegiodes	Violet Trumpet Vine
Ficus pumila	Creeping Fig
Jasminium polyanthum	Pink Jasmine
Macfadyena unguis-cati	Cats Claw Vine
Parthenocissus tricuspidata	Boston Ivy
Groundcover:	
Baccharis pilularis	Coyote Bush
Ceanothus griseus horizontalis	Carmel Creeper
Drosanthemum hispidum	Ice Plant
Gazania	
Lampranthus spectabilis	Trailing Ice Plant
Lippia repens	Lippia
Lobularia maritima	Sweet Alyssum
Myoporum parvifolium	Pink Trailing Myoporum

- Neighborhood Entry Areas

The neighborhood entries are gateways from the primary loop road to the individual neighborhood streets. These entry areas shall convey the same

character as the community entries and monuments except at a smaller scale.

Trees shall be sized as determined appropriate by the master developer. The landscape shrub and tree size shall be specified by the project landscape architect and approved by the City of Hemet. The landscape architect shall design landscape treatments basing selection from Plant List "B".

Table No. 10
Heartland Village Plant Palette

Plant List "B"

Botanical Name	Common Name
Trees:	
Cercis species	Redbud
Lagerstroemia indica	Crape Myrtle
Prunus species	Plum and Cherry
Pyrus calleryana	Ornamental Pear
Acacia smalli	Sweet Acacia
Arbutus unedo	Strawberry Tree
Brachychiton populneus	Bottle Tree
Cercidium floridum	Blue Palo Verde
Chilopsis linearis	Desert Willow
Chilotaipa tashkentensis	NCN
Cinnamomum camphora	Camphor Tree
Cupaniopsis anacardioides	Carrotwood Tree
Cupressus sempervirens	Italian Cypress
Geijera parviflora	Australian Willow
Jacaranda mimosifolia	Jacaranda
Pinus canariensis	Canary Island Pine
Pinus eldarica	Modell Pine
Pinus halepensis	Aleppo Pine
Pinus pinea	Italian Stone Pine
Pistachia chinensis	Chinese Pistache
Pittosporum phillyraeoides	Willow Pittosporum
Populus nigra 'Italica'	Lombardy Poplar
Prosopis chilensis 'Thornless'	Chilean Mesquite
Olea europaea	Olive Tree
Quercus agrifolia	Coast Live Oak
Quercus ilex	Holly Oak
Quercus suber	Cork Oak
Quercus virginiana	Southern Live Oak
Rhus lancea	African Sumac

Table No. 10 continued...
Plant List "B"

Botanical Name	Common Name
Trees:	
Schinus molle	California Pepper Tree
Brahea armata	Mexican Blue Fan Palm
Brahea edulis	Guadalupe Palm
Butia capitata	Pindo Palm
Phoenix dactylifera	Date Palm
Phoenix canariensis	Canary Island Palm
Washingtonia filifera	California Fan Palm
Washingtonia robusta	Mexican Fan Palm
Shrubs:	
Abelia grandiflora	Glossy abelia
Calliandra Tweedii	Trinidad Flamebush
Cocculus laurifolius	Laurel-leaf Cocculus
Dietes vegeta	Fortnight Lily
Escallonia fradesii	
Gamolepis chrysanthemoides	
Ligustrum japonica	Privet
Raphiolepis indica	Indian Hawthorne
Santolina species	
Viburnum species	
Vines:	
Clytostoma callistegiodes	Violet Trumpet Vine
Ficus pumila	Creeping Fig
Jasminium polyanthum	Pink Jasmine
Macfadyena unguis-cati	Cats Claw Vine
Groundcover:	
Baccharis pilularis	Coyote Bush
Ceanothus griseus horizontalis	Carmel Creeper
Drosanthemum hispidium	Ice Plant
Gazania	
Lampranthus spectabilis	Trailing Ice Plant
Lippia repens	Lippia
Lobularia maritima	Sweet Alyssum

- Landscape Buffers and Slopes

Two types of landscape buffers are reflected in the Heartland Village Specific Plan area. These landscaped buffers and slopes consist of the following treatments: Open Space Buffers, and Land Use Buffers. These buffers are intended to reduce and soften the impact between different land use areas. For example, the open space buffer is designed to buffer open space areas from more intense land uses such as schools, parks, and residences.

The land use buffer is designed to buffer different land use intensities such as medium-high density housing to low density or medium-high density. Plant materials for buffers shall be selected from Plant List "C". All trees shall be sized and spaced as determined appropriate by the master developer.

Table No. 11
Heartland Village Plant Palette

Plant List "C"

Botanical Name	Common Name
Trees:	
Ceratonia siliqua	Carob Tree
Cercis occidentalis	Wester Redbud
Eucalyptus spathulata	Narrow-leaved Gimlet
Eucalyptus sideroxylon	Red Iron Bark
Eucalyptus rudis	Desert Gum
Pinus eldarica	Mondell Pine
Pinus Pinea	
Platanus Racemosa	California Sycamore
Schinus Molle	California Pepper
Shrubs:	
Abelia grandiflora	Glossy Abelia
Acacia redolens	Prostrate Acacia
Arbutus unedo	Strawberry Tree
Arctostaphylos species	Manzanita
Ceanothus species	
Diets bicolor	Fortnight Lily
Eleagnus pungens	Silverberry
Heteromeles arbutifolia	Toyon
Laurus nobilis	Sweet Bay
Phormium tenax	New Zealand Flax
Rhamnus californica	California Coffeeberry
Groundcover:	
Baccharis pilularis	Coyote Bush
Ceanothus griseus horizontalis	Carmel Creeper
Drosanthemum hispidum	Ice Plant
Gazania	
Lampranthus spectabilis	Trailing Ice Plant
Lippia repens	Lippia
Lobularia maritima	Sweet Alyssum
Myoporum parvifolium	Pink Trailing Myoporum

• Street Trees

The street tree element in Heartland Village plays an extremely important role in creating the design theme of the neighborhood streets, and the hierarchy of street patterns, (from major arterial roads to interior residential streets). The landscape layout shall establish identifiable corridors for these areas. The major arterial roads shall be designed with clusters of evergreen

grove trees and deciduous accent trees. The interior residential streets will also utilize the large trees in the landscape parkways creating a street character for the neighborhoods. All neighborhood street trees shall be sized and spaced as determined appropriate by the master developer. Refer to Plant List "D" for plant selection keyed to major arterial roads and collector streets, and general local streets.

Table No. 12
Heartland Village Plant Palette

Plant List "D"

Botanical Name	Common Name
Major Arterial Roads & Collector Streets	
Trees:	
Alnus Rhomeifolia	White Alder
Lagerstreomia indica	Crape Myrtle
Platanus species	Sycamore
Pinus species	Pine
Quercus species	Oak
Ulmus species	Elm
Cocos Plumosa	Queen Palm
Phoenix Dactylifer	Date Palm
General Local Streets	
Trees:	
Chorisia speciosa	Floss Silk Tree
Fraxinus oxycarpa "Raywoodi"	Raywood Ash
Liriodendron tulipifera	Tulip Tree
Liquidamber styraciflua	American Sweet Gum
Pinus species	Pine
Pistacia chinensis	Chinese Pistache
Platanus acerifolia "Bloodgood"	London Plane Tree
Prunus species	Flowering Cherry
Pyrus calleryana "Bradfordii"	Bradford Pear
Quercus species	Oak
Ulmus parvifolia	Evergreen Elm

- Pedestrian Linkages

Pedestrian linkages provide passive and active recreational opportunities. Plant List "E" represents a broad spectrum plant sizes, textures, colors, and forms. The plant materials have been

selected for their hardiness, drought tolerance, and character; all qualities that will be consistent with the Heartland Village community theme all trees shall be sized and spaced as determined appropriate by the master developer. Refer to Plant List "E" for plant material selection.

Table No. 13
Heartland Village Plant Palette

Plant List "E"

Botanical Name	Common Name
Trees:	
Ceratonia siliqua	Carob Tree
Chitalpa "Pinkdawn"	Pink Chitalpa
Pistacia chinensis	Chinese Pistache
Pinus species	Pine
Platanus species	Sycamore
Populus fremontii	Western Cottonwood
Pyrus calleryana "Bradfordi"	Bradford Pear
Quercus species	Oak
Salix Babylonica	Weeping Willow
Shrubs:	
Ceanothus species	Ceanothus
Cocculus laurifolius	Laurel-leaf Cocculus
Escallonia fradesii	Escallonia
Eschscholzia californica	California Poppy
Heteromeles arbutifolia	Toyon
Ligustrum species	Privet
Laurus nobilis	Sweet Bay
Plumbago auriculata	Cape Plumbago
Phormium tenax	New Zealand Flax
Raphiolepis indica	Indian Hawthorne
Santolina semivirens	Lavender Cotton
Viburnum species	
Xylosma congestum	Shiny Xylosma
Groundcover:	
Atriplex semibaccata	Creeping Saltbush
Baccharis pilularis	Coyote Bush
Ceanothus griseus horizontalis	Carmel Creeper
Lobularia maritima	Sweet Alyssum
Myoporum parvifolium	Pink Trailing Myoporum

b. Landscape Standards

The planting concept for Heartland Village is to emulate and reinforce the naturalized landscape feeling of the existing hillsides of the project site. The extensive use of harmonious materials and drought tolerant species will create a strong unifying theme blending the developed landscape into the natural surroundings. The following standards shall apply to all landscaped areas within the Heartland Village Specific Plan area.

- Tree and shrub planting shall be planted in a combination of formal and informal/random groupings to provide focal points and accents, frame open spaces, and provide visual relief to the development's silhouette.
- Each neighborhood will establish a unique landscape design character while maintaining consistency with the overall community design theme.
- Frost tolerant plant materials shall be used for all landscaped areas within the project as determined appropriate by the master developer. Plant material in the fuel modification zone shall be low fuel varieties and native in character.
- Plant materials shall be used to screen parking areas and accessory structures (such as utilities) wherever possible.
- Three-way intersections terminating in residential areas shall be planted to mitigate headlight glare and to accentuate the ending of the street pavement.
- Plant materials selection shall be based from the previous plant lists, as may be modified by the project landscape architect and master developer, approved by the City, and shall be located appropriately with regards to soil condition, sun exposure, wind, and water requirements.

Irrigation

- All landscaped areas except for the single-family residences themselves shall be watered with an

automatic irrigation system. Manual systems may be used for single-family front, side, and rear yards.

- Community streetscapes and facilities shall be watered with an automatic, low precipitation irrigation system.
- Fuel modification and transitional open space areas shall have on-grade automatic irrigation systems that provide for the plants establishment and periodic supplemental water during the summer months (June through September). This system shall be of minimal low precipitation spray heads or drip irrigation for establishment of all trees and larger plant material as determined by the master developer.
- All landscape irrigation systems are to be designed to provide the adequate water needs of all plant materials in the various conditions while minimizing water run-off and excessive discharge. Irrigation backflow prevention devices and controllers shall be located installed and screened with appropriate plant material to minimize their visibility.

Landscape Maintenance

- All community common landscaped areas, parkways, and medians, (except in residential neighborhoods), shall be maintained by a Homeowner's Association, the City or Community Service District (CSD), or other entity as approved by the City of Hemet. The yards and parkways in front of home lots shall be maintained by the individual homeowners or a homeowners' association pursuant to the project's CC&Rs. All maintenance of common landscaped areas is to be done by a professional landscape maintenance company and is to meet the high quality standards established through the landscape designs and the construction documents. Automatic irrigation systems shall be routinely inspected and maintained to insure proper operating conditions at all times. Landscape maintenance specifications shall address the following:

Watering
Fertilization
Trimming, Pruning, and Mowing
Herbicide/Pesticide Programming
Weed and Debris Clean-up

- Most of the common area landscaped areas in the project will be professionally maintained by the Homeowners' Association, including parkways and slope areas and yards in multiple-family residential areas. With respect to the single-family detached products, the individual homeowner will be responsible for front yard maintenance.
- All golf course and clubhouse landscaping shall be maintained by the golf course maintenance crews.
- The Social Country Club facility and other common facilities shall be maintained by a homeowners' association.

G. Specific Plan Administration

Construction of a Specific Plan project is not made within the context of a "snapshot" time frame. A Specific Plan is often developed over a time period of ten (10) years or greater. Recognizing these conditions, it becomes prudent, if not an absolute necessity, to have a mechanism available which will accommodate changing economic, market and financial conditions.

This section contains a description of the various procedures which will be appropriate to modify the strict provisions of the Specific Plan, should this become necessary. Some of these procedures shall not necessarily involve a public hearing, Specific Plan amendment, or substantial conformance approval unless otherwise directed by the Hemet Planning Director. Due to the extensive nature of Specific Plan and environmental impact report review procedures, it is desirable to permit certain entitlement review activities to be administrative, unless compelling evidence exists which indicates a need for further environmental or public review.

1. Administrative Approvals

a. Density/Product Transfer

In order to allow for density flexibility and residential diversity without exceeding the maximum permitted Specific Plan density, the transfer of dwelling units from one residential planning area to another within the Specific Plan may be approved as part of the tentative map

approval process. Transfers of density shall be based on evidence of any one of the following items:

- that the proposed transfer would substantially improve spatial or functional relationships;
- that the proposed transfer would materially increase the quality of the land use, circulation or conservation pattern thereof;
- that the proposed transfer is necessary to achieve the maximum approved density of a planning area as a project; or
- that the proposed transfer would improve the economic viability of the neighborhood.

An increase in the number of dwellings must always be accompanied by a corresponding decrease in dwellings within another planning area. The use of this transfer method shall not result in an increase in dwelling units of more than 25 percent in any planning area. Any transfer of density from one planning area to another shall require the Planning Director's approval as part of the tentative map process at densities determined appropriate by the master developer.

b. Lot Size Adjustment

The Planning Director may decrease the minimum lot size within an individual planning area as long as the project's overall density is not exceeded. The decreased lot sizes shall still be required to meet the development standards of the applicable planning area, and the Specific Plan in general. The Planning Director's approval shall be based upon the proposal's consistency with the overall land use and design objectives of the Specific Plan.

c. Area and Boundary Adjustments

Planning area boundaries, as displayed on the Specific Land Use Development Plan and other exhibits on this Specific Plan, are approximate and not precise. Precision is limited by the scale at which the exhibits are drawn. Precise planning area boundaries and acreage shall be established in conjunction with the review and approval of tentative tracts, parcel maps, plot plans and lot line

adjustments. Boundary and acreage variations shall be permitted.

d. Phasing Plan Adjustments

The phasing plan, as contained in the Specific Plan, is an illustration based upon current market expectations. Adjustment of the phasing plan and recordation of lots and phases shall be permitted subject to the criteria contained in the Specific Plan relative to the availability of infrastructure and services as determined appropriate in the discretion of the master developer.

e. Development Standards Adjustments

Minor adjustments to specific development standards may be approved administratively by the Planning Director not exceeding a 10 percent reduction of the development standards established in the Specific Plan when a particular physical hardship is shown such as lot configuration or topography.

2. Discretionary Approvals

a. Specific Plan Amendment

An amendment to the Specific Plan may be required for the following circumstances:

- The addition or alteration of textual or graphic information to the Specific Plan which significantly alters the spatial relationship of land uses.
- Significant changes to the Architectural Guidelines or Landscaping Guidelines.
- Significant changes in proposed mitigation measures.

The procedures associated with a Specific Plan Amendment shall be the same as for the processing and approval of a Specific Plan.

b. Substantial Conformance

Substantial conformance review will be utilized for the following circumstances which may occur during the review and approval of a discretionary entitlement request,

such as a tentative tract map, conditional use permit or other discretionary permit:

- The addition or alteration of textual or graphic information to the Specific Plan which substantially alters the spatial relationship of land uses.
- Changes in the location of planned infrastructure which substantially alter the spatial relationship of land uses.
- Substantive changes to the Architectural Guidelines or Landscaping Guidelines.

c. Development Agreement

A development agreement entails the drafting of a contract between a developer and the reviewing agency which delineates specific provisions required by the agency before entitlement of the land is finalized.

Development agreements are facilitated by State law. The City, under these statutes, can make agreements with developers on major projects. The City may require the developer to provide specific public improvements such as water and sewer lines and roads to service the proposed development while the City agrees to allow a set density and type of land use. The City also agrees not to request any changes or impose new ordinances and standards on the proposed development once an agreement is made.

The project proponent may file an application for a development agreement for the Heartland Village Specific Plan. Impacts and mitigation measures associated with the development agreement and the Specific Plan will be the subject of this document. The final agreement with the City has not been negotiated at the time of the writing of this document and the exact terms will not be known until such time as the Specific Plan and development agreement are adopted.

d. Vesting Tentative Tract Maps

The purpose of the vesting tentative tract map, as provided for in the State Subdivision Map Act, upon receipt of a complete application and approval, guarantees the developer, person or agent the ability to proceed with the

proposed development in accordance with City Standards, Policies and Ordinances in effect at the time of the approval.

A vesting tentative map is analogous to a typical subdivision map in design parameters and content, but must be clearly labeled as a vesting tentative map. It is the intention of the master developer to proceed with the filing and processing of a vesting tentative map concurrently with or immediately after Specific Plan approval.

3. Miscellaneous Approvals

The following approvals may be required as conditions for implementing projects. These approvals shall be subject to administrative review unless otherwise required by City Ordinances in effect at the time of adoption of the Specific Plan and development agreement.

- Architecture and Landscaping Plans
- Grading Plans
- Golf Course Grading Plans
- Improvement Plans
- Master Phasing and Unitization Plans
- Sales Information Plot Plans
- Mitigation Monitoring Reports
- Other Facilities Deemed Appurtenant or Accessory to Specific Plan Land Uses
- The addition of textual or graphic information to the Specific Plan which do not significantly alter the spatial relationship of land uses
- Changes in the location or nature of public facilities or infrastructure which do not increase the density of the project or significantly alter the spatial relationship of land uses
- The reduction in density and/or units at the final subdivision map stage as a result of the increase in lot size

- Lot Line Adjustments
- Interim and Temporary uses, which shall be governed by the provisions of the Hemet Municipal Code

APPENDIX NO. 1

IMPLEMENTATION PROCEDURES

EMERGENCY PLAN --

HEARTLAND VILLAGE

HEMET, CALIFORNIA

INTRODUCTION

This plan has been developed for use in the management in a disaster affecting the community of Heartland Village in Hemet, California. Disaster will be described as a sudden event causing great damage, loss or destruction, which overwhelms this community's resources and abilities to manage the event. Examples of such incidents would be natural disasters such as a flood, earthquake or wildfire, or a man-caused disaster such as a car crash, aircraft accident or hazardous waste incident.

This plan will provide guidelines for declaring a disaster, organizing the Incident Command System, coordination with the Reinhardt Canyon property owners and residents, and the interface of the Heartland Village Association and its adjacent property owners. This plan will define the Homeowners' Association responsibilities, incident communications, preplanning and post-incident activities.

A disaster of such magnitude may occur at any time in this community. It is imperative that an organized and well-planned approach be taken to the management of such an incident to effectively reduce the life and/or property loss associated with these events and establish a structure which will allow for effective coordination of the responsible personnel associated with these areas.

IMPLEMENTATION OF PLANS

In the event an incident occurs that is foreseen to be of such a magnitude that the community resources are overwhelmed or may adversely affect the adjoining neighborhood of the Heartland Village property, the Heartland Village community will declare a disaster. The On-site Incident Commander, the General Manager of the Master Homeowners' Association or his or her designated alternative, is the responsible party for such a declaration.

Unless a hazardous situation prevents such, the Heartland Village Homeowners' Association (HVHOA) administrative office building will be known as the Emergency Operations Center (EOC), and will be the headquarters for the Unified Incident Command and all command staff activities.

All HVHOA department and administrative directors will be notified and directed to report to the administration office, or other designated location, for briefing and development of the Incident Management Plan. It will be the responsibility of the Master Homeowners' Association Manager to notify the City and the appropriate public emergency departments related to the incident in question of the declaration of an emergency and the disaster plan to be initiated.

If an On-site Incident Commander is already in place, he/she will also respond to the EOC and be prepared to brief the rest of the initial management team and transfer command to the General Manager or his alternative. Upon completion of this task, he/she may be asked to remain as part of the unified command or reassigned to operations at the discretion of the command.

INCIDENT COMMAND SYSTEM

All emergency incidents, whatever the size, require the same basic principles of management be implemented to be successfully resolved. These principles include planning, organizing, delegating, directing, coordinating, evaluating and communicating. The Incident Command System was developed as an "all risk" system, designed to be applicable to any type of emergency. It incorporates five main elements: command, planning, operations, logistics and security. These five elements are present, to some degree, at every emergency incident. The modular organization of this system is designed to be developed from top down and easily grows and expands as the size of the incident grows and expands.

As the size of the incident grows, it is the intention that the ICS structure will be expanded or contracted based upon the presence of qualified personnel and degree and severity of the associated incident. It is vitally important to the success of the plan that command be established immediately upon notification of the incident and the needed resources and personnel garnered to direct the emergency response.

HVHOA RESPONSIBILITIES

Each division of the HVHOA, i.e. security, landscape operations, Recreation Director, Assistant HOA Manager, etc., are all vital parts of the Incident Command System. Command will be responsible for delegating the responsibilities and assignments varying with the nature of the disaster and availability of personnel. General areas of responsibility are as follows:

HVHOA General Manager

1. **Incident Commander** - The General Manager and/or his or her alternative will represent the HVHOA to the Unified Command and will assume the role of Incident Commander for the Heartland Community. He/she will also be directly responsible for assuming or delegating the Command staff function of Liaison Officer to the Assistant Manager, Public Information Officer to the Recreation Director, and Safety Officer to the Association's Security Officer.

Administrative Staff

1. Liaison Officer - The Assistant Homeowners' Association Manager will fill the role of Liaison Officer whose primary responsibility is to establish contact and communicate information between command and the other agencies, both public, association and neighborhood representatives.
2. Public Information Officer - The Recreation Director will fill the role of the Public Information Officer whose primary responsibility is to communicate with the public, the neighborhood, residents of Heartland Village and the media.
3. Security Officer - The HVHOA Security Officer will be delegated the responsibility for coordinating with emergency response officials of the City of Hemet, County of Riverside or any other appropriate disaster personnel. It is also the Security Officer's primary responsibility to open and secure any emergency access points allowing for orderly and controlled evacuation of both Heartland Village and the surrounding Reinhardt Canyon area through the Village. It will be the responsibility of the Security Officer and his/her staff to open all gates, close streets, and administrate the evacuation plan under the guidance of the Incident Commander.
4. Logistics Section - Other administrative staff and personnel, including the Landscape Manager, will be assigned to assist the four other department officers in the areas of service/support, personnel, emergency response team, etc., as needed.

The emergency response plan, as developed, will direct and interface with the public authorities from the City Public Works Department, Public Safety, Fire, Police, etc., to provide an effective integration of the public emergency response professionals with the HVHOA disaster officers and the resident disaster response coordinators.

COMMUNICATIONS

Communication at all major disasters has been identified as one of the weakest links in the management chain. It is important that all available security frequencies be identified and pre-assigned, when possible, to avoid confusion during the operational phase of the incident. It is the responsibility of the Primary Security Officer to coordinate communications for the Incident Command System and the responsible and specific qualified personnel within that system.

PREPLANNING

Preplanning is a vital element of any disaster plan. The plan itself is one aspect of this element. Planning must also involve education and training. Education should include all aspects of the disaster plan with emphasis on the Incident Command System. Training should include an annual disaster plan presentation, either through video communication on the dedicated HOA channel, and/or a live practical demonstration at the main Association hall and meeting room. Only through implementation of such a plan with regular disaster bulletins and update plan presentations can the Association hope to successfully manage an actual disaster event.

Preplanning also includes maintaining all equipment, supplies and inventory at a state of readiness. This involves both the Master Association equipment as well as personal individual Homeowners' Association disaster kits and supplies.

POST INCIDENT RESPONSIBILITIES

The Heartland Village Homeowners' Association's responsibilities do not end when the disaster is over. Formal critique sessions must be held to evaluate the overall management and response of the incident. The success and failure must be identified and this information used to continually revise and update the Disaster Management Plan.

CONCLUSION

Management of a large disaster is never an easy task. It is inevitable that lives and property will be lost. It is the goal of Heartland Village, through its association management team, to mitigate, to the extent possible, the emotional and material aspects of such a disaster and to interface the spirit of cooperation with its neighbors and preplanning and organization with the intention of reducing any loss of life and property associated with any disaster.

APPENDIX NO. 2

**HEARTLAND
DEVELOPMENT
TTM 28286**

PLAN OF SERVICE

APRIL 1999



**EASTERN MUNICIPAL
WATER DISTRICT**



EASTERN MUNICIPAL
WATER DISTRICT

April 13, 1999

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Redwine and Sherrill

Joe Gallagher
MSK Development Group
5142 Avenida Encinas
Carlsbad, CA 92008

SUBJECT: Heartland Village (TTM 28286) Plan of Service

Dear Mr. Gallagher:

Thank you for inquiring about water and sewer service from EMWD and I hope the following information is helpful.

GENERAL

The proposed Heartland project involves the development of 665 gross acres into 2007 low, medium and high density residential lots, a park and a golf course. The project is at the northwest corner of Highway 74 and California Avenue in the City of Hemet (APN 455-130-048, 455-140-032/036-041/043-063/065-071, 455-150-001 to 050). The elevations range from 1522 to 1710 feet based on a tentative tract map prepared by ASL Engineers on December 12, 1998.

The subject project is within the District's water and sanitary sewer service areas. Service to the project will be dependent upon the available capacity of the District's systems at the time service agreements are made with EMWD. The following information represents the facilities required to provide adequate service to the subject project based on the available information, time and resources. These requirements may change as a result of more detailed, recent or otherwise more accurate information.

DOMESTIC WATER

The Heartland project is in Water Improvement District No. 24. Heartland's Planning Areas 1-11 are in the 1719 Fruitvale Pressure Zone (PZ). Planning Area 12 and Planning Area 13 will need service from the 1785 Homeland PZ.

Joe Gallagher
April 13, 1999
Page 2

The estimated demands from Heartland are shown on the attached Exhibit A. The 35 low density lots in PA 12 represent 24,500 gpd of average day demand and 73,500 gpd of maximum day demand. The 93 medium density lots in PA 13 represent 50,220 gpd of average day demand and 150,660 gpd of maximum day demand. The fire flow requirement will be established by the City Fire Department. The estimated requirement for residential areas is 1500 gpm over a 2-hour duration at a minimum 20 psi residual pressure. The fire flow requirement for the high density and commercial areas is estimated to be 3000 gpm for 2 hours.

In the Fruitvale PZ (PA 1-11), elevations below 1535 feet, such as Lots 266-268, 273-277, 303-309, 502-531, 562-569, 595-621, 626-668, 675, 719-827 (233 lots) will periodically receive static pressures greater than 80 psi and will need a pressure regulator and a "Notice of High Pressure Condition" signed and recorded with the County. Lots with elevations above 1587 feet in elevation, such as Lots 11-26, 353-387, 412-431, 1289-1292, 1294-1305, 1410-1475, and 1477-1489 (166 lots), will periodically receive static pressures less than 40 psi and must have a "Notice of Low Pressure" signed and recorded with the County.

PA 12 has lots with proposed pad elevations from 1667 to 1710 which would receive nearly zero pressure from the Fruitvale PZ. Consequently, PA 12 will need service from a higher pressure zone. The facilities required for a higher pressure zone include a pump station and a tank. Since PA 12 is in one of the last phases of the Heartland development, the details of the facilities will be addressed in the future when specific fire flow requirements are known.

According to the tentative tract map, PA 13 has lots with proposed pad elevations from 1608 to 1682 which would receive static pressures from 0 to 31 psi from the Fruitvale PZ. Per our telephone conversation, the pad elevations in PA 13 have been lowered to between 1600 to 1660 feet. Lots with elevations above 1632 feet in elevation would receive static pressures less than 20 psi from the Fruitvale PZ. In addition, Fruitvale will not be able to provide fire flow to the higher portions of PA 13 due to the minimum 20 psi requirement.

Consequently, PA13 will also need service from a higher pressure zone. The 1785 Homeland PZ extends to the intersection of Clinton and Calvert Avenues. The Homeland PZ is gridded with 1½ to 8-inch pipes north of Highway 74. A new 3.2 MG tank in the Homeland PZ with a high water level of 1811 feet is scheduled to be completed by EMWD in January 2000 which will further increase the reliability of supply to Heartland. Static pressures from the improved Homeland PZ to PA 13 will range from 45 to 91 psi based on lot elevations between 1600 to 1667 feet.

Based on the estimated demands, the following water facilities and conditions will be needed to adequately serve the subject project:

1719 Fruitvale (PA 1-11):

- 1) Completion of the Cawston Avenue Intertie by EMWD;
- 2) Conversion of the existing 30-inch pipeline in Devonshire, east of Warren Avenue, from irrigation to potable water by EMWD;
- 3) 24-inch pipeline in Devonshire from the existing 30-inch to California (Heartland needs all 24-inch);
- 4) 18-inch pipeline in Street "B" from California to Street "N";
- 5) 18-inch pipeline in Street "N" and in Street "T" between Streets "N" and "A" (Heartland only needs 16-inch portion). A pipeline is not required in Street "B" between Streets "N" and "A";
- 6) Remove the existing 8-inch and 12-inch pipelines on-site and replace within interior streets as described below;
- 7) 16-inch pipeline in Street "A" from Highway 74 to Street "J" (Heartland only needs 12-inch portion);
- 8) 16-inch pipeline in Street "A" between Streets "J" and "B" (Heartland needs all 16-inch);
- 9) 12-inch pipeline in Street "A" between Streets "B" and "U";
- 10) 12-inch pipeline in Street "U" from Street "A" westerly to the existing tank pipeline;
- 11) 12-inch pipeline in Street "V" between Streets "U" and "GG". A pipeline is not needed in Street "A" between Streets "U" and "GG";
- 12) 12-inch pipeline in Street "GG" between Streets "JJ" and "CC";
- 13) 12-inch pipeline in Street "CC";
- 14) 12-inch pipeline in Street "FF" between Streets "CC" and "YY". A pipeline is not required along the storm channel in Lot F since the future tract north of Heartland will extend the 12-inch through the road dedication and ideally loop back into the existing pipeline in Tres Cerritos/California;
- 15) 12-inch pipeline in Street "C" between Streets "A" and "D";

- 16) 12-inch pipeline in Street "D" from Street "C" to the westerly branch of Street "E";
- 17) 8-inch looped pipeline from Street "D" through Street "H" to Street "ZZ". Lots along Street "H" will be served by a parallel 8-inch pipeline from the 1785 PZ (see below);
- 18) 8-inch pipeline in an easement along the emergency access road from Street "R" to the existing 8-inch in California;
- 19) 8-inch pipeline in all looped streets and where fire flows may be conveyed. 6-inch pipeline in cul-de-sacs downstream of any fire hydrants;

The above estimated demands and required facilities include service to the golf course. EMWD's Board of Directors must approve the use of potable water for irrigation of the golf course in accordance with Resolution No. 72.15.

1785 Homeland (PA 13):

- 1) 12-inch pipeline from the intersection of Truelson and Highway 74 to Planning Area 13 through Lot NN. The width of Lot NN will need to be increased to 40 feet to provide sufficient clearance from the pressurized water pipeline;
- 3) The maximum elevation of any service must be less than 1,667 feet to maintain at least 20 psi during a fire flow event;
- 4) The new 3.2 MG tank with a high water level of 1811 feet by EMWD. The tank is not required for Heartland if the fire flow requirement is 1000 gpm or less or if an emergency generator is installed at the Homeland Booster Station.

All permanent water pipelines over 12-inch may be potentially reimbursable in the form of credits toward capacity charges or participation in the Local Improvement District Reimbursement Pool in accordance with EMWD Resolutions.

Attached are copies of the hydraulic analysis used to determine the above pipe diameters. In the model, the Fruitvale Tank was operational at half tank even though the tank would quickly empty during maximum day plus fire flow conditions. To compensate, the tank pipeline was modeled as an 8-inch instead of the actual 12-inch to restrict and sustain the tank flow during high demand periods. Otherwise, the tank would have been unoperational and larger pipe sizes may have been needed. In the field, the tank outlet may be restricted similar to the model to create the same results.

SANITARY SEWER

The subject project is tributary to the Perris Valley Regional Water Reclamation Facility (PVRWRF) and is within Sewer Improvement District 17.

The estimated flows from the subject project are shown on the attached Exhibit A and are summarized below:

Average = 570,100 gpd

Peak = 778 gpm

The nearest available sewer pipeline is a 21-inch PVC in Warren Road, south of Highway 74 and MWD San Diego No. 1 and No. 2 Aqueducts with an invert elevation of 1482.0 feet (SD-16475). Wastewater may gravity flow from the intersection of California Avenue and Highway 74 to the existing pipeline in Warren based on USGS topography and elevations of MWD's San Diego Canal, Eastside Feeder, San Diego No. 1 and No. 2 Aqueducts. The ability to gravity flow should be confirmed with more recent survey data since only 2 feet of clearance was estimated over of the San Diego Aqueducts.

Based on the estimated demands and minimum allowable slopes, the following gravity sewer pipelines will be needed to provide adequate service (refer to Exhibit B):

- 1) 18-inch parallel to Highway 74 from the existing pipeline in Warren, over the San Diego Aqueducts, to the west side of the San Diego Canal. This pipeline will be considered temporary since the future sewer will be aligned along the west side of the San Diego Canal, south of Highway 74. An EMWD 12-inch water pipeline and power poles are located on the north side of the highway.
- 2) 18-inch parallel to Highway 74 from the west side of the MWD San Diego Canal to California. The pipeline must be as deep as possible and still permit crossing over the San Diego Aqueducts in Warren. A 21-inch stub will extend southerly and a 15-inch to the north.
- 3) 15-inch in California from Highway 74 to Street "CCC";
- 4) 15-inch in Street "CCC" from California to Street "DDD";
- 5) 15-inch in Street "DDD" from Street "CCC" to Street "A";
- 6) 15-inch in Street "A" from Street "DDD" to Street "C";
- 7) 12-inch in Street "A" from Street "C" to Street "M";
- 8) 10-inch in Street "A" from Street "M" to Street "U";

- 9) 10-inch in Street "U" from Street "A" to Street "V";
- 10) 10-inch in California from Street "CCC" to the sewer easement from Street "PP", Heartland only needs the 8-inch portion;
- 11) 8-inch in other streets with lots which will need sewer service.

All permanent gravity sewer pipelines over 8-inch may be potentially reimbursable in the form of credits toward capacity charges or participation in the Local Improvement District Reimbursement Pool in accordance with EMWD Resolutions. The 18-inch described in Item 1 will only be eligible for frontage reimbursements since only an 8-inch pipeline will ultimately be needed for that segment. Regarding the 18-inch pipeline in Item 2, Heartland only needs a 15-inch to hydraulically convey its flows. The cost difference between the 15-inch and 18-inch may be reimbursable if Heartland does not need the flatter slopes available with the 18-inch to reach the existing pipeline in Warren. As shown in Exhibits B and C, the additional capacity included in the above pipe diameters only affected the segment in Items 2 and 10 above. The other pipe diameters are needed solely for Heartland. The pipe diameters may be decreased if the steeper slopes listed in Exhibit D can be achieved and if downstream pipelines have the same or a larger diameter than upstream pipe segments.

An alternative sewer method is to install the future 21-inch pipeline along the west side of the San Diego Canal from Highway 74 to Stetson, over the San Diego Canal and Eastside Feeder, then under the San Diego Aqueducts to the existing 21-inch sewer pipeline. The Aqueduct crossing is critical since less than one foot of clearance edge to edge is estimated. This method provides the potential financial participation by the owners of the land along the west side of the Canal and greater potential reimbursements from EMWD toward Heartland's capacity charges. I have given your phone number to two such property owners. We can discuss this option in more detail if you would like. The pipeline in Stetson from the Canal to the existing pipeline would be considered temporary similar to Item No. 1 above. Ultimately, the 21-inch pipeline will extend along the Canal to a 33-inch at Simpson.

Several areas such as "I"/"H" Streets, "FF"/"CC" Streets and along PA 3A will have sewer depths greater than 20 feet. If possible, any lowering of the street elevations in these areas would reduce installation and future maintenance efforts. The sewer pipeline in Street "A" will be deep enough to cross underneath the proposed golf cart tunnel north of Street "C". Easements across residential lots will be needed from Street "RR", "PP", and "T" toward California. Another easement is needed along the west side of California from the easement at "RR" Street to the detention basin (Lot 1648) since the 15-foot diameter storm drain prevents sewers from gravity flowing to the public right of way.

Joe Gallagher
April 13, 1999
Page 7

An 8-inch sewer stub should be installed underneath the storm channel in California as far north as possible to accept flows from Reinhart Canyon. Details regarding our easement requirements will be addressed further during plan check.

A sewer pipeline in California, north of Devonshire, and Tres Cerritos may be needed in the future. However, the pipeline installation will not be required of Heartland. Instead, frontage charges will be collected at \$15 per foot. A pipeline is not expected along the north side of Highway 74, west of California, which implies frontage charges would not be collected along the highway.

IRRIGATION/RECYCLED WATER

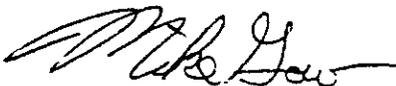
The beneficial use of recycled water for landscape irrigation and other appropriate uses is encouraged. The subject project includes large irrigation areas such as the golf course which may significantly benefit from using recycled water. However, recycled water is not readily available since the nearest pipeline is in Warren Avenue, north of Cottonwood. As mentioned above, irrigation water for the golf course will be provided from the potable system pending Heartland's obtaining approval from EMWD's Board of Director's.

ADDITIONAL INFORMATION

The design and construction of the required facilities must be in accordance with EMWD standards and guidelines. The project will be processed through the Customer Service Department for the initiation of plan check, determination of the connection requirements and fees.

Once again, thank you for inquiring about water and sewer service. If you have any questions, please call me at (909) 928-3777, ext. 4468.

Sincerely,



Mike Gow
Civil Engineer
Customer Service Department

ESTIMATED FLOWS
HEARTLAND VILLAGE (TTM 28286)
NWC HWY 74/CALIFORNIA, WO 99-360

GENERAL						WATER								SEWER				
LAND USE TYPE	ACRES	DU/ACRE *1	D.U.	POPUL/DU *2	EQUIV. # PEOPLE *3	CAPITA FLOW gpcd- *4	ACRE FLOW gpad- *5	AVG FLOW gpd	MAX DAY FACTOR *6	MAX DAY FLOW gpd	PK-HR FACTOR *7	PK-HR FLOW gpd	CAPITA FLOW gpcd- *2	ACRE FLOW gpad- *5	AVG FLOW gpd	PEAK FACTOR *2,8	PEAK FLOW gpd	
LOW	14.9	2.35	35	3.5	123	200	1,644	24,500	2.0	49,000	3.5	85,750	105	863	12,863	1.965	25,274	
MEDIUM	220.5	6.03	1330	3	3,990	180	3,257	718,200	2.0	1,436,400	3.5	2,513,700	100	1,810	399,000	1.965	784,011	
HIGH	54.4	11.80	642	2.5	1,605	120	3,540	192,600	1.5	288,900	2.5	481,500	80	2,360	128,400	1.965	252,298	
MOBILE	0	12.00	0	2	0	100	2,400	0	1.5	0	2.5	0	70	1,680	0	1.965	0	
PUBLIC	1				30		3,000	3000	1.5	4,500	2.0	6,000		3,000	3000	1.965	5,895	
COMMERCIAL	15.8				268.6		2,000	31,600	1.5	47,400	2.0	63,200		1,700	26860	1.965	52,778	
INDUSTRIAL	0				0		2,000	0	1.5	0	2.0	0		1,700	0	1.965	0	
PARKS/GOLF	214.9						4,000	859600	2.5	2,149,000	2.5	2,149,000		0	0	1.965	0	
AGRICULTURE	0						3,500	0	1.1	0	2.0	0		0	0	1.965	0	
OPEN	143.5						0	0	1.0	0	0.0	0		0	0	1.965	0	
TOTAL	665.00				6016		TOTAL gpd = 1,829,500			3,975,200		5,299,150		TOTAL gpd = 570,123			1,120,256	
							gpm = 1,270			2,761		3,680		gpm = 396			778	
							cfs = 2.831			6.151		8.200		cfs = 0.882			1.733	
							af/yr = 2049.4			4453.1		5936.2		af/yr = 638.7			1254.9	

- *1) VALUES ARE SITE SPECIFIC AND SHOULD REFLECT ACTUAL OR PROPOSED CONDITIONS.
- *2) VALUES ARE FROM MEMO #10536 BY BILL PLUMMER DATED 2/9/93.
- *3) FOR PUBLIC, COMMERCIAL & INDUSTRIAL, THE # PEOPLE REPRESENTS EQUIVALENT VALUE BASED ON 100 GPDC.
- *4) VALUES ARE CONSISTENT WITH FACILITY MASTER PLAN TABLE 3-7.
- *5) ACRE FLOWS ARE CALCULATED FROM "GENERAL" INFO. FOR RESIDENTIAL AND ARE GIVEN FOR OTHER LAND USE TYPES.
- *6) VALUES ARE CONSISTENT WITH FACILITY MASTER PLAN TABLE 3-5. FOR LOW AND MEDIUM DENSITY RESIDENTIAL,
THE PEAKING FACTOR IS 3.0 FOR PRESSURE ZONE ADD < 500 GPM; 2.5 FOR 500 <= ADD <= 2000 GPM AND 2.0 FOR ADD > 2000 GPM.
- *7) VALUES ARE CONSISTENT WITH FACILITY MASTER PLAN TABLE 3-5. FOR LOW AND MEDIUM DENSITY RESIDENTIAL,
THE PEAKING FACTOR IS 7.0 FOR PRESSURE ZONE ADD < 600 GPM; 5.0 FOR 500 <= ADD <= 2000 GPM AND 3.5 FOR ADD > 2000 GPM.
- *8) SEWER PEAKING FACTOR VARIES INVERSELY WITH POPULATION. POPULATION USED IN PF BASED ON ADF + 100 GPDC.

ADD of 1719 Fruitvale PZ > 2000 gpm

EXHIBIT A: Estimated Water Demands and Sewer Flows Generated by Project

TRIBUTARY AREA
Heartland Village (TTM 28286)
NWC Hwy 74/California, WO 89-360

MANHOLE		STREET	TRIBUTARY AREA (a)				EDU		LAND USE (b,c)	FLOW/EDU (gpd) (d)	AVG. DAILY FLOW		EQUIV. POPUL. (e)	PEAK FACTOR (f)	PEAK FLOW (gpd)	D/d (g) (in/in)	PIPE SLOPE (h) (ft/ft)	SEWER PIPE DIA.	
FROM	TO		TRACT LOTS	INCREMENT (acre)	TOTAL (acre)	EDU/AC	INCREMENT	TOTAL			INCREMENT (gpd)	TOTAL (gpd)						CALC'D (in) (i)	USE (in) (j)
Reinhart	RR Ease	California	200	Add. Cap			200	200	MD	300	60,000	60,000	600	2.500	150,000	0.50	0.0040	6.64	8
RR Ease	PP Ease	California	90				90	290	MD	300	27,000	87,000	870	2.500	217,500	0.50	0.0040	7.63	8
PP Ease	Devonshire	California	248	PA 9			248	538	MD	300	74,400	161,400	1,614	2.349	379,093	0.50	0.0040	9.39	10
Devonshire	CCC	California	95	PA 5			95	633	HD	200	19,000	180,400	1,804	2.305	415,836	0.50	0.0032	10.14	12
V	A	U	35	PA 12			35	35	LD	367.5	12,863	12,863	129	2.500	32,156	0.50	0.0040	3.72	8
		U	340	PA 10 & 11			340	375	MD	300	102,000	114,863	1,149	2.456	282,081	0.50	0.0040	8.41	10
U	K South	A	142				142	517	HD	200	28,400	143,263	1,433	2.390	342,468	0.50	0.0032	9.43	10
		A	109	PA 3B			109	626	MD	300	32,700	175,963	1,760	2.315	407,404	0.50	0.0032	10.06	12
K South	C	A	111				111	737	HD	200	22,200	198,163	1,982	2.264	448,685	0.50	0.0024	11.01	12
C	DDD	A	277	PA 1, 4, 13			277	1,014	MD	300	83,100	281,263	2,813	2.181	607,758	0.50	0.0024	12.34	15
A	CCC	DDD	178	PA 6			178	1,192	MD	300	53,400	334,663	3,347	2.111	706,466	0.50	0.0024	13.06	15
DDD	California	CCC	88	PA 7			88	1,280	MD	300	26,400	361,063	3,611	2.086	753,300	0.50	0.0024	13.38	15
CCC	HWY 74	California	538	T.A. Above			538	1,818	MD	300	161,400	522,463	5,225	1.989	1,039,057	0.75	0.0016	13.00	15
			95	T.A. Above			95	1,913	HD	200	19,000	541,463	5,415	1.979	1,071,700	0.75	0.0016	13.15	15
			294	PA 8			294	2,207	HD	200	58,800	600,263	6,003	1.950	1,170,433	0.75	0.0016	13.59	15
				15.8	15.8	7.234	114	2,321	C	235	26,860	627,122	6,271	1.936	1,214,384	0.75	0.0016	13.78	15
				1	16.8	12.766	13	2,334	C	235	3,000	630,122	6,301	1.935	1,219,248	0.75	0.0016	13.80	15
California	MWD Canal	HWY 74	720	Add. Cap.			720	3,054	MD	300	216,000	846,122	8,461	1.859	1,572,645	0.75	0.0016	15.18	18
			1525	Add. Cap.			1,525	4,579	MD	300	457,500	1,303,622	13,036	1.776	2,315,473	0.75	0.0014	18.00	18

SHADED BOXES INDICATE INPUT REQUESTED

- a) Enter either the number of lots or the tributary area and EDU density.
- b) Land use must be entered as: LD for low density, MD for medium density, HD for high density, MH for mobile homes, C for commercial, industrial or institutional, S for custom flow factors.
- c) Custom flow/EDU (S) = 235 (gpd)
- d) Land Use densities and flow/EDU from Memo 10536.
- e) Population total based on ADF at 100 gpcd.
- f) Peaking Factor is $1.93(ADF \text{ in mgd})^{0.11}$ from 1990 SFMP, pg. 4-2, which is generally consistent with Memo 10536.
- g) Max. D/d is 0.5 for 12-inch or smaller pipes, and 0.75 for 15-inch or larger pipes per Memo No. 10536.
- h) Min. pipe slopes per Memo 10536. If actual slopes are greater, then proposed pipe diameter may be decreased, subject to EMWD approval.
- i) Minimum required pipe diameter using Manning's Eqn with $n = 0.013$
- j) Minimum required pipe diameter rounded up to 8, 10, 12, 15, 18, 21, 24, 27, 30, 36, 42, 48, or 54-inch based on standard pipe sizes.

EXHIBIT B: Minimum Pipe Diameter Based on Minimum Allowable Slopes w/ Additional Capacity

TRIBUTARY AREA
Heartland Village (TTM 28286)
NWC Hwy 74/California, WO 99-360

MANHOLE		STREET	TRIBUTARY AREA (a)				EDU		LAND USE (b,c)	FLOW/EDU (d)	AVG. DAILY FLOW		EQUIV. POPUL. (e)	PEAK FACTOR (f)	PEAK FLOW (gpd)	D/d (g) (in/in)	PIPE SLOPE (h) (ft/ft)	SEWER PIPE DIA.		
FROM	TO		TRACT LOTS	INCREMENT (acre)	TOTAL (acre)	EDU/AC	INCREMENT	TOTAL			INCREMENT	TOTAL						POPUL.	FLOW	CALCD. (in) (i)
Reinhardt	RR Base	California	0	Add. Cap.			0		MD						0.50	0.0040				
RR Base	PP Base	California	90				90	90	MD	300	27,000	27,000	270	2.500	67,500	0.50	0.0040	4.92	8	
PP Base	Devonshire	California	248	PA 9			248	338	MD	300	74,400	101,400	1,014	2.487	252,159	0.50	0.0040	8.06	10	
Devonshire	CCC	California	95	PA 5			95	433	HD	200	19,000	120,400	1,204	2.443	294,147	0.50	0.0032	8.91	10	
V	A	U	35	PA 12			35	35	LD	367.5	12,863	12,863	129	2.500	32,156	0.50	0.0040	3.72	8	
		U	340	PA 10 & 11			340	375	MD	300	102,000	114,863	1,149	2.456	282,081	0.50	0.0040	8.41	10	
U	K South	A	142				142	517	HD	200	28,400	143,263	1,433	2.390	342,468	0.50	0.0032	9.43	10	
		A	109	PA 3B			109	626	MD	300	32,700	175,963	1,760	2.315	407,404	0.50	0.0032	10.06	12	
K South	G	A	111				111	737	HD	200	22,200	198,163	1,982	2.264	448,685	0.50	0.0024	11.01	12	
C	DDD	A	277	PA 1, 4, 13			277	1,014	MD	300	83,100	281,263	2,813	2.161	607,758	0.50	0.0024	12.34	15	
A	CCC	DDD	178	PA 6			178	1,192	MD	300	53,400	334,663	3,347	2.111	706,466	0.50	0.0024	13.06	15	
DDD	California	CCC	88	PA 7			88	1,280	MD	300	26,400	361,063	3,611	2.086	753,300	0.50	0.0024	13.38	15	
CCC	HWY 74	California	338	T.A. Above			338	1,618	MD	300	101,400	462,463	4,625	2.019	933,605	0.75	0.0016	12.49	15	
			95	T.A. Above			95	1,713	HD	200	19,000	481,463	4,815	2.009	967,388	0.75	0.0016	12.65	15	
			294	PA 8			294	2,007	HD	200	58,800	540,263	5,403	1.980	1,069,649	0.75	0.0016	13.14	15	
					15.8	15.8	7,234	114	2,121	C	235	26,860	567,122	5,671	1.966	1,115,211	0.75	0.0016	13.35	15
					1	16.8	12,766	13	2,134	C	235	3,000	570,122	5,701	1.965	1,120,256	0.75	0.0016	13.37	15
California	MWD Canal	HWY 74	0	Add. Cap.			0	2,134	MD	300	0	570,123	5,701	1.965	1,120,256	0.75	0.0016	13.37	15	
			0	Add. Cap.			0	2,134	MD	300	0	570,123	5,701	1.965	1,120,257	0.75	0.0014	13.71	15	

SHADED BOXES INDICATE INPUT REQUESTED

- a) Enter either the number of lots or the tributary area and EDU density.
- b) Land use must be entered as: LD for low density, MD for medium density, HD for high density, MH for mobile homes, C for commercial, industrial or institutional, S for custom flow factors.
- c) Custom flow/EDU (S) = 235 (gpd)
- d) Land Use densities and flow/EDU from Memo 10536.
- e) Population total based on ADF at 100 gpcd.
- f) Peaking Factor is $[1.93(ADF \text{ in mgd})^{0.11}]$ from 1990 SFMP, pg. 4-2, which is generally consistent with Memo 10536.
- g) Max. D/d is 0.5 for 12-inch or smaller pipes, and 0.75 for 15-inch or larger pipes per Memo No. 10536.
- h) Min. pipe slopes per Memo 10536. If actual slopes are greater, then proposed pipe diameter may be decreased, subject to EMWD approval.
- i) Minimum required pipe diameter using Manning's Eqn with $n = 0.013$
- j) Minimum required pipe diameter rounded up to 8, 10, 12, 15, 18, 21, 24, 27, 30, 36, 42, 48, or 54-inch based on standard pipe sizes.

EXHIBIT C: Minimum Pipe Diameter Based on Minimum Allowable Slopes w/out Additional Capacity

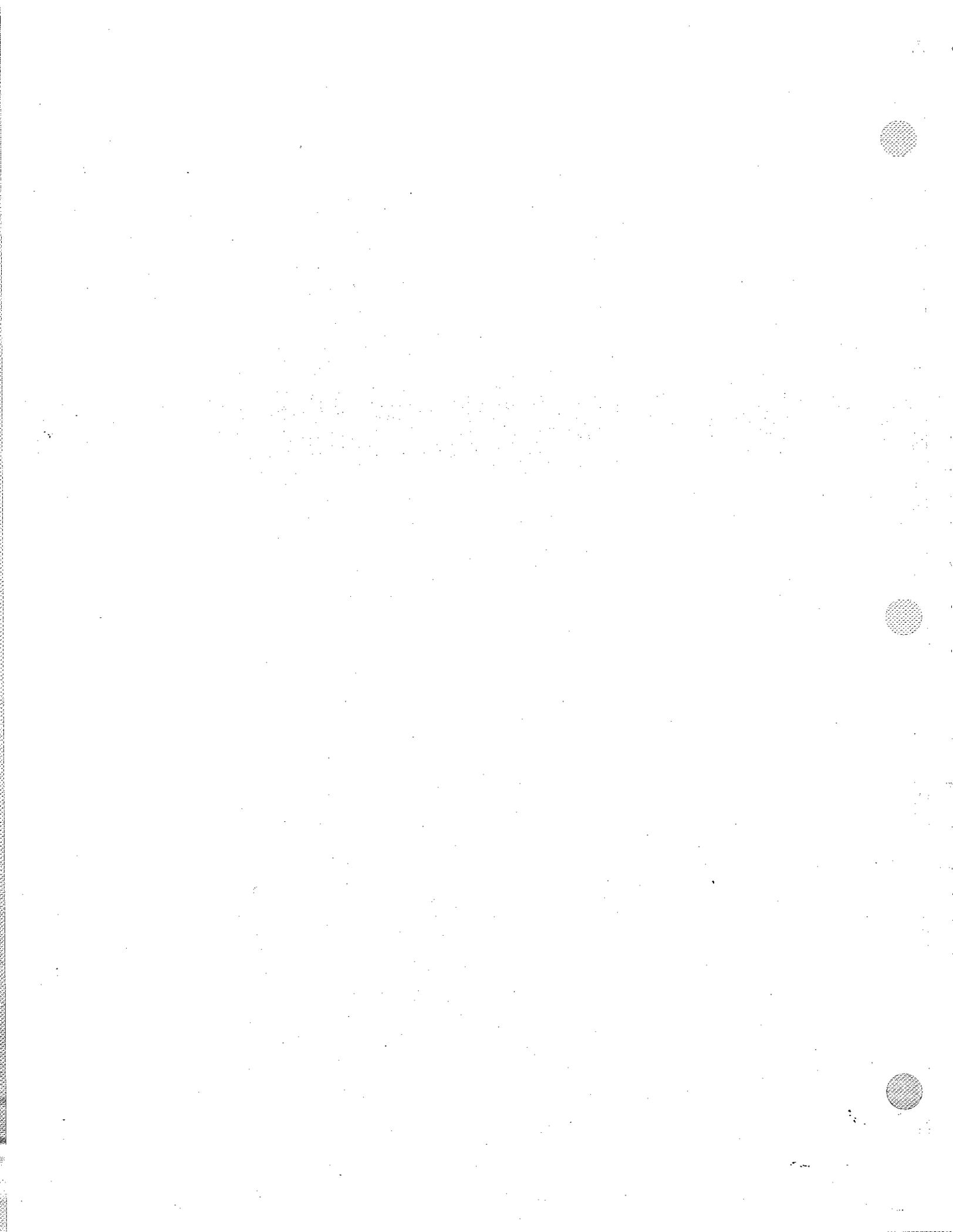
TRIBUTARY AREA
Heartland Village (TTM 28286)
NWC Hwy 74/California, WO 99-360

MANHOLE		STREET	TRIBUTARY AREA (a)				EDU		LAND USE (b,c)	FLOW/EDU (gpd) (d)	AVG. DAILY FLOW		EQUIV. POPUL. (e)	PEAK FACTOR (f)	PEAK FLOW (gpd)	D/d (g) (in/in)	PIPE SLOPE (h) (ft/ft)	SEWER PIPE DIA		
FROM	TO		TRACT LOTS	INCREMENT (acre)	TOTAL (acre)	EDU/AC	INCREMENT	TOTAL			INCREMENT (gpd)	TOTAL (gpd)						PEAK FLOW (gpd)	CALC'D. (in) (i)	USE (in) (j)
Reinhart	RR Ease	California	200	Add. Cap			200	200	MD	300	60,000	60,000	600	2.500	150,000	0.50	0.0040	6.64	8	
RR Ease	PP Ease	California	90				90	290	MD	300	27,000	87,000	870	2.500	217,500	0.50	0.0040	7.63	8	
PP Ease	Devonshire	California	248	PA 8			248	538	MD	300	74,400	161,400	1,614	2.349	379,093	0.50	0.0095	7.99	8	
Devonshire	CCC	California	95	PA 5			95	633	HD	200	19,000	180,400	1,804	2.305	415,836	0.50	0.0114	7.99	8	
V	A	U	35	PA 12			35	35	LD	367.5	12,863	12,863	129	2.500	32,156	0.50	0.0040	3.72	8	
		U	340	PA 10 & 11			340	375	MD	300	102,000	114,863	1,149	2.456	282,081	0.50	0.0053	7.98	8	
U	K South	A	142				142	517	HD	200	28,400	143,263	1,433	2.390	342,468	0.50	0.0077	8.00	8	
		A	109	PA 3B			109	626	MD	300	32,700	175,963	1,760	2.315	407,404	0.50	0.0034	9.95	10	
K South	G	A	111				111	737	HD	200	22,200	198,163	1,982	2.264	448,685	0.50	0.0041	9.96	10	
C	DDD	A	277	PA 1, 4, 13			277	1,014	MD	300	83,100	281,263	2,813	2.161	607,758	0.50	0.0028	11.99	12	
A	CCC	DDD	178	PA 6			178	1,192	MD	300	53,400	334,663	3,347	2.111	706,466	0.50	0.0038	11.98	12	
DDD	California	CCC	88	PA 7			88	1,280	MD	300	26,400	361,063	3,611	2.086	753,300	0.50	0.0043	11.99	12	
CCC	HWY 74	California	538	T.A. Above			538	1,818	MD	300	161,400	522,463	5,225	1.989	1,039,057	0.50	0.0082	11.98	12	
			95	T.A. Above			95	1,913	HD	200	19,000	541,463	5,415	1.979	1,071,700	0.50	0.0087	11.99	12	
			294	PA 8			294	2,207	HD	200	58,800	600,263	6,003	1.950	1,170,433	0.50	0.0104	11.99	12	
					15.8	15.8	7,234	114	2,321	C	235	26,860	627,122	6,271	1.936	1,214,384	0.50	0.0112	11.99	12
					1	16.8	12,766	13	2,334	C	235	3,000	630,122	6,301	1.935	1,219,248	0.50	0.0113	11.88	12
California	MWD Canal	HWY 74	720	Add. Cap.			720	3,054	MD	300	216,000	848,122	8,461	1.859	1,572,645	0.75	0.0018	14.85	15	
			1525	Add. Cap.			1,525	4,579	MD	300	457,500	1,303,622	13,036	1.776	2,315,473	0.75	0.0037	15.00	15	

SHADED BOXES INDICATE INPUT REQUESTED

- a) Enter either the number of lots or the tributary area and EDU density.
- b) Land use must be entered as: LD for low density, MD for medium density, HD for high density, MH for mobile homes, C for commercial, industrial or institutional, S for custom flow factors.
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- d) Land Use densities and flow/EDU from Memo 10536.
- e) Population total based on ADF at 100 gpcd.
- f) Peaking Factor is $[1.93(ADF \ln \text{mgd})^{0.11}]$ from 1990 SFMP, pg. 4-2, which is generally consistent with Memo 10536.
- g) Max. D/d is 0.5 for 12-inch or smaller pipes, and 0.75 for 15-inch or larger pipes per Memo No. 10536.
- h) Min. pipe slopes per Memo 10536. If actual slopes are greater, then proposed pipe diameter may be decreased, subject to EMVWD approval.
- i) Minimum required pipe diameter using Manning's Eqn with $n = 0.013$
- j) Minimum required pipe diameter rounded up to 8, 10, 12, 15, 18, 21, 24, 27, 30, 36, 42, 48, or 54-inch based on standard pipe sizes.

EXHIBIT D: Minimum Required Slopes to Decrease Pipe One Diameter Size (w/ Additional Capacity)

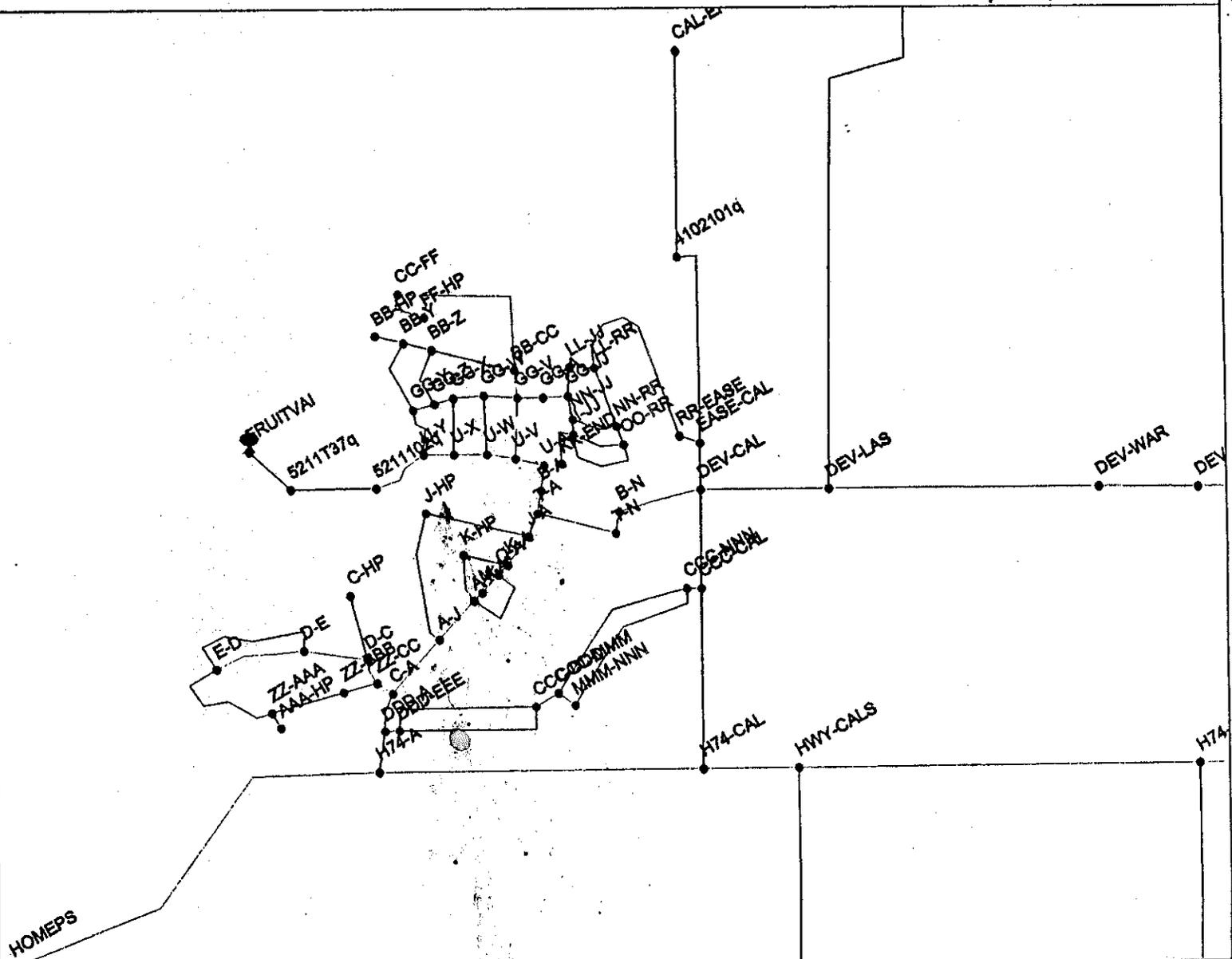


HEARTLAND HYDRAULIC MODEL NODE NAMES

Model Name: heartlan

April 14, 1999 08:53 AM

INTERNAL DIAM (in)		
----RANGE----		COUNT
BELOW 7.00		6
7.00 9.00		77
9.00 13.00		92
13.00 17.00		19
17.00 19.00		17
ABOVE 19.00		49
NON-PIPE		21
MIN = 0.03000		
MAX = 51.00000		
ANNOTATION:		
NODE NAME		
NODE OFF		
NODE OFF		
ELEM OFF		
State: Balanced		
Corners: (FEET)		
UL: (1750650, 583005)		
LL: (1750650, 574504)		
UR: (1764238, 583005)		
LR: (1764238, 574504)		



HEARTLAND HYDRAULIC MODEL NODE ELEVATIONS

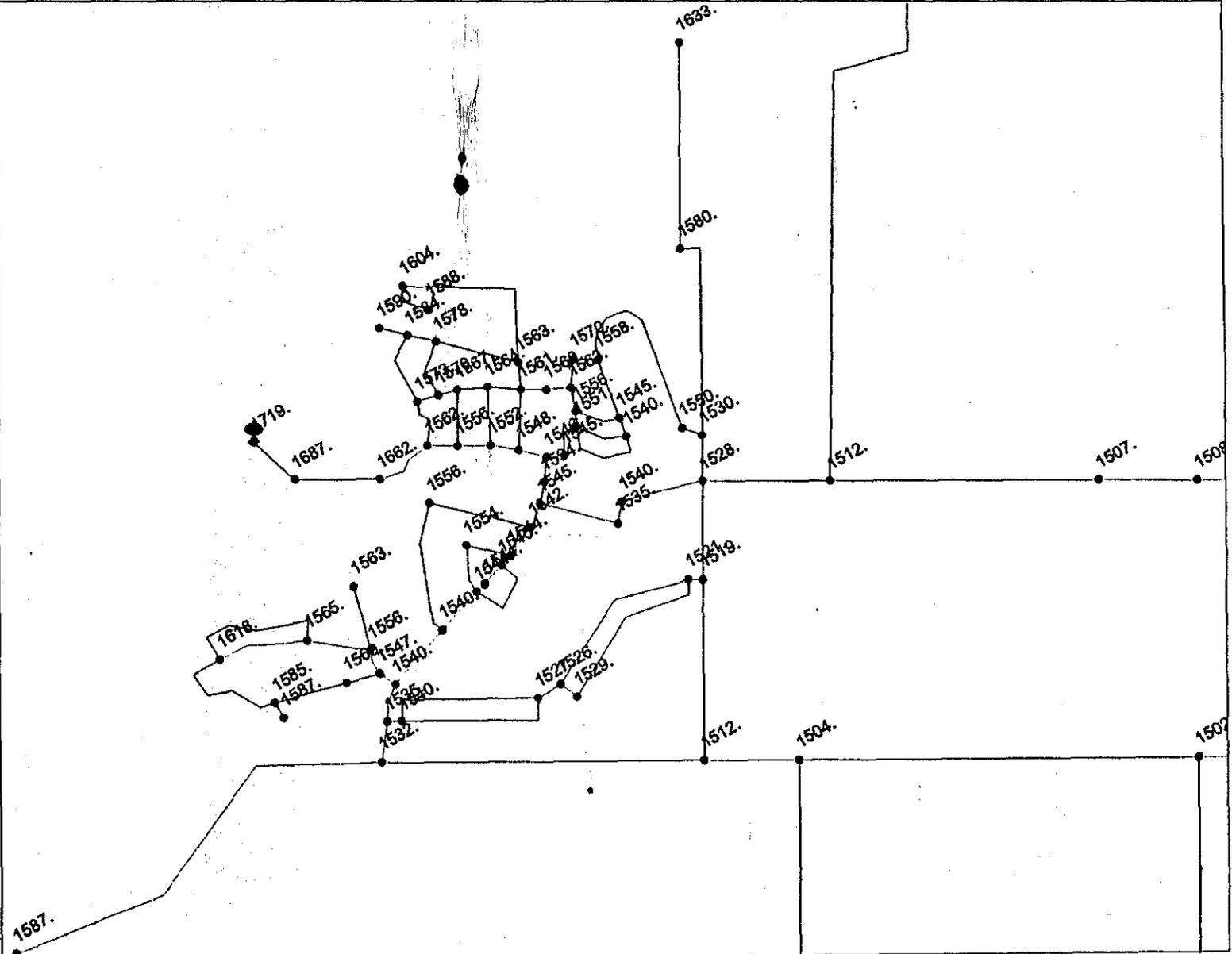
Model Name: heartlan

April 14, 1999 08:54 AM

INTERNAL DIAM (in)		
----	RANGE	COUNT
BELOW	7.00	6
	7.00 9.00	77
	9.00 13.00	92
	13.00 17.00	19
	17.00 19.00	17
ABOVE	19.00	49
NON-PIPE		21
MIN = 0.03000		
MAX = 51.00000		
ANNOTATION:		
NODE ELEV	ft	
NODE OFF		
NODE OFF		
ELEM OFF		

State: Balanced

Corners: (FEET)
 UL: (1750650, 583005)
 LL: (1750650, 574504)
 UR: (1764238, 583005)
 LR: (1764238, 574504)



NODE ELEVATIONS

PROPOSED SYSTEM W/ ADD. CAP.
 2760 GPM MDD + 1500 GPM FF TO HEARTLAND PA 11

Model Name: heartlan

April 13, 1999 01:11 PM

INTERNAL DIAM (in)			
----	RANGE	-----	COUNT
BELOW	7.00		6
	7.00	9.00	77
	9.00	13.00	92
	13.00	17.00	19
	17.00	19.00	17
ABOVE	19.00		49
NON-PIPE			21

MIN = 0.03000
 MAX = 51.00000

ANNOTATION:

NODE Q gpm
 NODE OFF
 NODE OFF
 ELEM OFF

State: Balanced

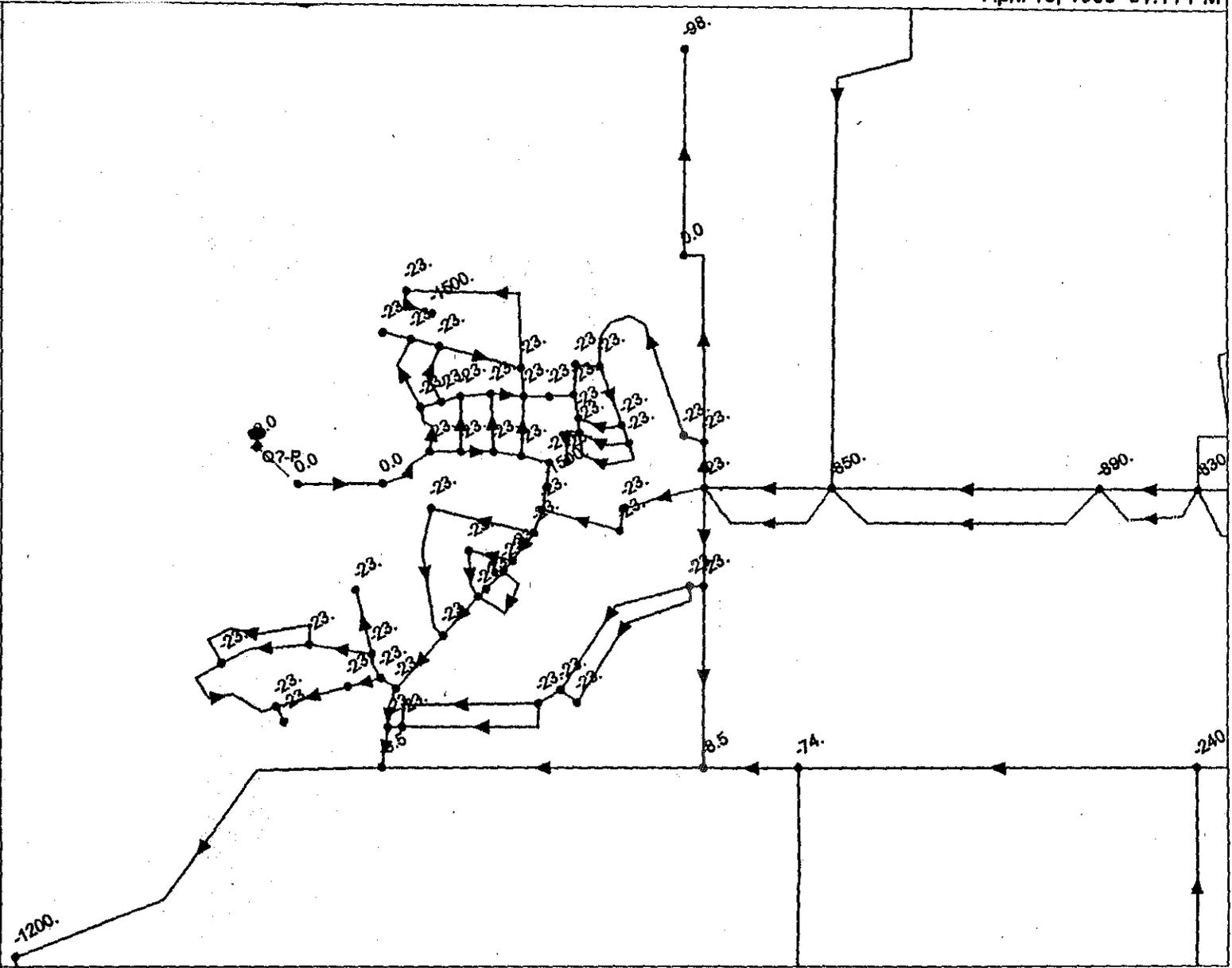
Corners: (FEET)

UL: (1750637, 583011)

LL: (1750637, 574484)

UR: (1764266, 583011)

LR: (1764266, 574484)



SCENARIO No. 1, PLOYA

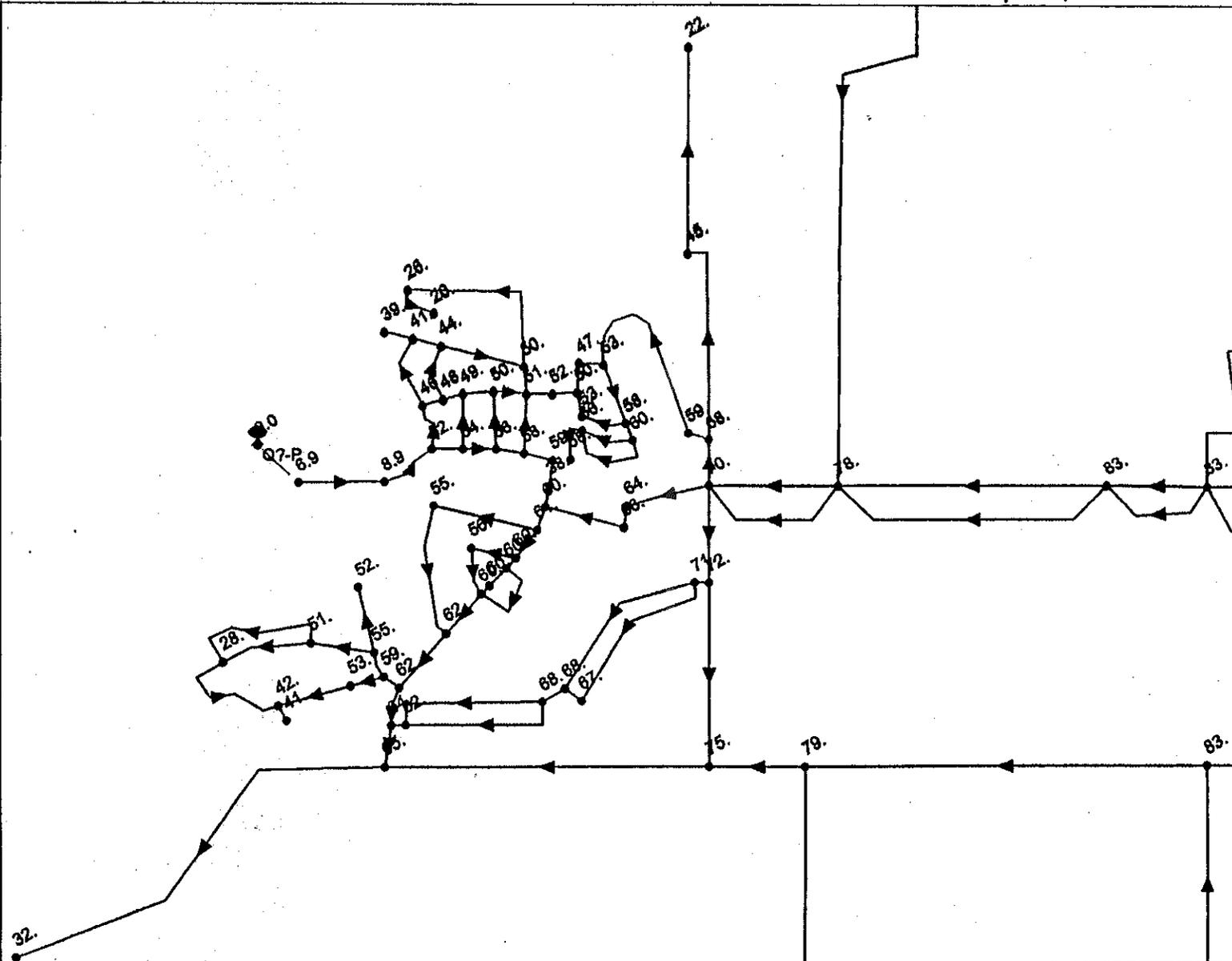
SynerGEE Water Version 3.00 13Jul98

HEARTLAND PROPOSED SYSTEM W/ ADD. CAP. 2760 GPM MDD + 1500 GPM FF TO HEARTLAND PA 11

Model Name: heartlan

April 13, 1999 01:12 PM

VELOCITY (ft/sec)		
-----RANGE-----	COUNT	
BELOW 0.01	23	
0.01 2.00	188	
2.00 5.00	42	
5.00 10.00	7	
ABOVE 10.00	0	
NON-PIPE	21	
MIN = 0.00000		
MAX = 9.71890		
ANNOTATION:		
NODE P	psig	
NODE OFF		
NODE OFF		
ELEM OFF		
State: Balanced		
Corners: (FEET)		
UL: (1750637, 583011)		
LL: (1750637, 574484)		
UR: (1764266, 583011)		
LR: (1764266, 574484)		



HEARTLAND

SCENARIO 1 - PROPOSED SYSTEM @ MDD +FF

heartlan

April 13, 1999 at 02:09 PM

SynerGEE Water
Stoner Associates, Inc.
1170 Harrisburg Pike
Carlisle, PA 17013

*** TRACE NOT ON FOR THIS TIMESTEP ***

*** TIME= 0.000 hours TIME STEP= 0 1 ITERATIONS

*** N O D E R E P O R T ***

NODE	TYPE	ELEVATION ft	PRESSURE psig	HGL ft	NODE FLOW gpm
1497	QC	1490.00	98.83	1718.07	-121.930
4102101q	QC	1580.00	45.11	1684.10	0.000
4102VLD	QC	1597.46	54.36	1722.89	0.000
4102VLS	QC	1598.05	72.77	1765.97	0.000
4103101q	QC	1565.29	68.01	1722.24	0.000
4103VLD	QC	1586.84	58.71	1722.31	0.000
4103VLS	QC	1586.93	74.18	1758.10	0.000
4103VPS	QC	1565.29	76.48	1741.77	0.000
4108PRD	QC	1511.56	83.00	1703.10	0.000
4108PRS	QC	1511.56	83.00	1703.10	0.000
41150P1q	QC	1504.00	94.57	1722.23	0.000
4119101q	QC	1483.00	101.62	1717.49	-1.693
4119102q	QC	1477.00	104.22	1717.49	0.000
4121102q	QC	1520.00	87.64	1722.23	-36.389
4121104q	QC	1496.00	96.43	1718.53	-5.078
4121105q	QC	1476.00	106.70	1722.23	-5.078
4122101q	QC	1520.00	87.64	1722.23	-320.733
4122102q	QC	1512.00	91.11	1722.23	-121.930
4124101q	QC	1480.00	102.92	1717.49	0.000
41260M1q	QC	1550.00	74.69	1722.34	0.000
4127101q	QC	1510.00	90.37	1718.53	-4.231
4127102q	QC	1520.00	87.51	1721.95	0.000
4127103q	QC	1520.00	87.64	1722.23	0.000
4127104q	QC	1519.00	87.95	1721.95	-45.698
4127105q	QC	1522.00	86.82	1722.34	0.000
4128101q	QC	1515.00	89.02	1720.41	-83.780
4129104q	QC	1510.00	90.29	1718.34	-25.387
4130101q	QC	1494.00	96.85	1717.49	-4.231
4130102q	QC	1494.00	96.85	1717.49	-4.231
4131101q	QC	1501.00	88.94	1706.22	-16.925
4131103q	QC	1514.00	88.13	1717.37	-16.925
4132102q	QC	1517.00	87.25	1718.33	-300.422
4134101q	QC	1540.00	78.84	1721.92	-348.659
4134102q	QC	1551.00	74.25	1722.33	-113.399
4134103q	QC	1550.00	74.88	1722.78	-224.259
4135101q	QC	1576.00	65.27	1726.63	-245.417
50060PWq	QC	1650.00	71.48	1814.95	13640.000
5101101q	QC	1650.00	71.30	1814.52	-1580.000
5102101q	QC	1605.00	52.01	1725.02	-268.264
5102102q	QC	1641.00	57.40	1773.44	0.000
5102103q	QC	1600.00	71.93	1765.97	-132.863
5102104q	QC	1580.00	61.92	1722.89	-98.166
5103101q	QC	1576.00	63.31	1722.10	-113.399
5103102q	QC	1564.00	68.45	1721.95	0.000
5103103q	QC	1560.00	70.10	1721.75	-317.345
5103104q	QC	1566.00	67.80	1722.44	-160.790
5108102q	QC	1510.00	83.03	1701.60	-38.928
5108106q	QC	1520.00	78.70	1701.60	0.000
5110101q	QC	1572.00	62.61	1716.48	0.000
5115101q	QC	1568.00	63.33	1714.14	-487.445
5115102q	QC	1589.00	52.65	1710.50	-364.738
5116101q	QC	1536.00	76.36	1712.19	-122.708
5116102q	QC	1550.00	70.55	1712.81	-122.708
5117102q	QC	1525.00	80.98	1711.86	0.000

5116102q	QC	1550.00	70.55	1712.81	-122.708
5117102q	QC	1525.00	80.98	1711.86	0.000
5118103q	QC	1508.00	83.79	1701.35	0.000
5119101q	QC	1503.00	85.66	1700.66	-584.764
5120101q	QC	1527.00	80.17	1712.00	0.000
5120102q	QC	1519.00	79.03	1701.36	-89.704
5121101q	QC	1547.00	71.57	1712.14	-245.417
51270T7q	QC	1685.00	6.99	1701.12	0.000
5127101q	QC	1568.00	58.33	1702.59	-782.789
5127102q	QC	1578.00	54.14	1702.93	-37.235
5127P53q	QC	1606.00	41.99	1702.89	-256.930
5129101q	QC	1572.00	55.90	1701.00	-14.386
5130101q	QC	1503.00	85.66	1700.66	-25.387
5130T79q	QC	1681.00	8.67	1701.00	0.000
5201101q	QC	1517.00	81.78	1705.70	-5.924
5211102q	QC	1662.00	8.87	1682.47	0.000
5211T37q	QC	1687.00	6.90	1702.93	0.000
5212TTCq	QC	1679.00	8.66	1698.99	0.000
5215P71q	QC	1560.00	43.84	1661.15	0.000
5225101q	QC	1485.00	93.44	1700.62	-266.573
5227101q	QC	1475.00	97.77	1700.62	0.000
581118	QC	1521.00	82.25	1710.79	-121.930
A-J	QC	1540.00	61.73	1682.44	-22.682
A-K	QC	1544.00	60.03	1682.53	-22.682
AAA-HP	QC	1587.00	41.25	1682.19	-22.682
ACA-CAW	QC	1512.00	82.81	1703.10	-217.487
ACA-SAN	QC	1522.00	79.70	1705.90	-186.177
B-A	QC	1593.70	38.29	1682.07	-1514.671
B-N	QC	1540.00	63.80	1687.23	-22.682
BB-CC	QC	1563.00	49.91	1678.16	-22.682
BB-HP	QC	1590.00	38.78	1679.48	-22.682
BB-Y	QC	1584.00	41.38	1679.49	-22.682
BB-Z	QC	1578.00	43.94	1679.39	-22.682
C-A	QC	1540.00	61.66	1682.28	-22.682
C-HP	QC	1563.00	51.66	1682.22	-22.682
CAL-END	QC	1633.00	22.04	1683.86	-97.544
CAL-STET	QC	1499.00	81.11	1686.16	-121.930
CAWSTON	PC	1721.00	0.00	1701.00	0.000
CC-FF	QC	1604.00	26.29	1664.66	-22.682
CCC-CAL	QC	1519.00	72.27	1685.76	-22.682
CCC-DDD	QC	1527.00	67.69	1683.19	-22.682
CCC-MMM	QC	1526.00	68.37	1683.76	-22.682
CCC-NNN	QC	1521.00	71.07	1685.00	-22.682
D-C	QC	1556.00	54.70	1682.23	-22.682
D-E	QC	1565.00	50.80	1682.22	-22.682
DDD-A	QC	1535.00	63.80	1682.21	-22.682
DDD-EEE	QC	1540.00	61.74	1682.46	-22.682
DEV-CAL	QC	1528.00	70.38	1690.40	-22.682
DEV-CAW	QC	1514.00	81.30	1701.62	-286.880
DEV-LAS	QC	1512.00	78.00	1691.99	-852.460
DEV-OWAR	QC	1508.16	82.59	1698.74	-833.000
DEV-SAN	QC	1524.00	78.56	1705.29	-186.177
DEV-WAR	QC	1507.00	82.66	1697.74	-893.087
DIAMOND	PC	1717.00	0.00	1701.00	0.000
DICK	QC	1578.79	54.03	1703.47	0.000
E-D	QC	1618.00	27.83	1682.21	-22.671
EAG-COM	QC	1522.00	88.31	1725.79	-100.000
EAG-COU	QC	1522.00	88.50	1726.23	-20.000
EASE-CAL	QC	1530.00	67.54	1685.86	-22.682
FF-HP	QC	1588.00	20.22	1634.65	-1522.682
FLO-WAR	QC	1503.92	82.95	1695.32	0.000
FP4	QC	1459.00	104.71	1700.62	0.000
FRU1	QC	1522.17	79.58	1705.80	0.000
FRU14	QC	1560.00	70.29	1722.19	0.000
FRU17	QC	1560.20	70.22	1722.23	0.000
FRU18	QC	1551.32	74.06	1722.23	0.000
FRU19	QC	1547.02	75.87	1722.09	0.000
FRU2	QC	1513.70	82.58	1704.25	0.000
FRU20	QC	1538.56	79.58	1722.20	0.000

FRU2	QC	1513.70	82.58	1704.25	0.000
FRU20	QC	1538.56	79.58	1722.20	0.000
FRU21	QC	1544.00	77.14	1722.01	0.000
FRU22	QC	1522.00	87.06	1722.90	-24.386
FRU23	QC	1519.18	87.99	1722.22	0.000
FRU24	QC	1521.32	87.06	1722.22	0.000
FRU25	QC	1584.89	59.80	1722.89	0.000
FRU26	QC	1538.56	79.59	1722.22	0.000
FRU27	QC	1550.00	74.63	1722.21	0.000
FRU28	QC	1541.00	77.77	1720.46	0.000
FRU29	QC	1528.00	82.88	1719.25	0.000
FRU30	QC	1541.00	71.36	1705.66	0.000
FRU31	QC	1565.05	67.95	1721.84	0.000
FRU32	QC	1519.21	87.87	1721.98	0.000
FRU4	QC	1511.32	83.11	1703.10	0.000
FRU6	QC	1522.88	79.05	1705.29	0.000
FRUITVAI	PC	1719.00	0.00	1703.00	0.000
GG-A	QC	1560.00	51.68	1679.25	-22.682
GG-JJ	QC	1563.00	50.39	1679.28	-22.682
GG-V	QC	1561.00	51.24	1679.24	-22.682
GG-W	QC	1564.00	50.26	1679.97	-22.682
GG-X	QC	1567.00	49.00	1680.07	-22.682
GG-Y	QC	1573.00	46.39	1680.05	-22.682
GG-Z	QC	1570.00	47.66	1679.99	-22.682
GOL-COM	QC	1522.00	88.24	1725.62	-20.000
GOL-COU	QC	1522.00	88.97	1727.30	1500.000
H74-A	QC	1532.00	65.04	1682.08	-8.462
H74-CAL	QC	1512.00	75.21	1685.56	-8.462
H74-WAR	QC	1502.00	82.91	1693.31	-242.877
HOMEPS	QC	1587.00	32.14	1661.15	-1200.000
HWY-CALS	QC	1504.00	79.12	1686.56	-74.471
II-JJ	QC	1551.00	55.60	1679.30	-22.682
J-A	QC	1542.00	61.02	1682.80	-22.682
J-HP	QC	1556.00	54.86	1682.59	-22.682
JACK	QC	1518.70	79.19	1701.43	0.000
K-A	QC	1544.00	60.10	1682.69	-22.682
K-HP	QC	1554.00	55.72	1682.58	-22.682
KK-END	QC	1545.00	58.19	1679.29	-22.680
LL-JJ	QC	1570.00	47.45	1679.50	-22.682
LL-RR	QC	1558.00	52.77	1679.77	-22.682
M-A	QC	1544.00	60.04	1682.55	-22.682
MANNY	QC	1519.58	87.82	1722.23	0.000
MMM-NNN	QC	1529.00	67.13	1683.90	-22.682
MOE	QC	1557.95	71.19	1722.23	0.000
NN-JJ	QC	1556.00	53.43	1679.30	-22.682
NN-RR	QC	1545.00	58.23	1679.36	-22.682
OO-RR	QC	1540.00	60.37	1679.32	-22.682
Q-A	QC	1545.00	59.65	1682.64	-22.682
QUANDT	PC	1300.00	43.34	1400.01	0.000
QUANT	QC	1524.00	87.15	1725.10	-121.930
R10	QC	1459.00	104.71	1700.62	0.000
R9	QC	1472.00	99.07	1700.62	0.000
RR-EASE	QC	1550.00	58.74	1685.54	-22.682
SIM-WIN	QC	1475.00	97.77	1700.62	0.000
SIMBYPAS	QC	1474.85	97.84	1700.62	0.000
SIMPATVE	QC	1475.47	97.57	1700.62	0.000
SIMPATVN	QC	1475.11	97.72	1700.62	0.000
SIMPATVS	QC	1475.04	97.76	1700.62	0.000
SIMPAVE2	QC	1475.76	97.45	1700.62	0.000
SIMPAVN	QC	1475.47	97.57	1700.62	0.000
SIMPAVN2	QC	0.00	736.98	1700.62	0.000
STA-ACA	QC	1695.00	33.99	1773.43	-175.000
STA-COM	QC	1522.00	87.38	1723.64	-20.000
STE-CAW	QC	1517.00	80.10	1701.84	-276.726
STE-WAR	QC	1500.00	84.40	1694.76	-432.437
T-A	QC	1545.00	59.79	1682.96	-22.682
T-N	QC	1535.00	65.63	1686.45	-22.682
TRESCERR	PC	1719.00	0.00	1699.00	0.000
U-A	QC	1546.00	58.71	1681.48	-22.682

TRESCERR	PC	1719.00	0.00	1699.00	0.000
U-A	QC	1546.00	58.71	1681.48	-22.682
U-V	QC	1548.00	57.60	1680.92	-22.682
U-W	QC	1552.00	55.86	1680.91	-22.682
U-X	QC	1556.00	54.14	1680.93	-22.682
U-Y	QC	1562.00	51.60	1681.08	-22.682
WELL23	QC	1580.00	75.22	1753.58	750.000
WELL25	QC	1593.00	58.61	1728.24	1900.000
WELL27	QC	1573.91	65.55	1725.16	0.000
WEN-SAN	QC	1524.00	78.86	1705.97	0.000
WES-COU	QC	1521.53	88.70	1726.21	-20.000
WHI-WAR	QC	1500.00	83.91	1693.63	-175.175
WHIT-CAW	QC	1514.50	81.46	1702.47	0.000
ZZ-AAA	QC	1585.00	42.12	1682.20	-22.682
ZZ-BBB	QC	1560.00	52.96	1682.22	-22.682
ZZ-CC	QC	1547.00	58.61	1682.24	-22.682
cut1	QC	1515.77	89.40	1722.06	-121.930
cut2	QC	1515.95	91.12	1726.21	-24.386
fru10	QC	1561.00	67.66	1717.13	0.000
fru11	QC	1544.00	76.47	1720.46	0.000
fru15	QC	1516.15	87.62	1718.34	0.000
fru16	QC	1518.68	87.17	1719.83	0.000
fru17	QC	1526.28	84.24	1720.66	0.000
fru18	QC	1540.00	78.49	1721.13	0.000
fru19	QC	1563.00	69.67	1723.77	0.000
fru2	QC	1512.00	88.94	1717.23	0.000
fru20	QC	1593.00	57.66	1726.05	0.000
fru21	QC	1577.00	64.38	1725.56	0.000
fru22	QC	1593.00	58.38	1727.71	0.000
fru23	QC	1587.29	74.02	1758.10	0.000
fru24	QC	1569.86	66.07	1722.31	0.000
fru3	QC	1513.49	88.77	1718.34	0.000
fru6	QC	1522.59	85.73	1720.42	0.000
fru7	QC	1528.00	83.40	1720.46	0.000
fru8	QC	1637.00	34.72	1717.13	0.000
fru9	QC	1540.00	78.13	1720.29	0.000

*** PIPE REPORT ***

FROM NODE	TO NODE	TYPE	FLOW, gpm	VEL, ft/sec	DH/1000	LENGTH, ft	DIA, in	FRICITION
41150P1q	4122102q	HW	0.00	0.00	0.000	3220.0	51.00	125.0000
4122102q	4122101q	HW	317.29	0.05	0.000	3380.0	51.00	125.0000
4122101q	4127105q	HW	-588.15	-0.54	-0.078	1440.0	21.00	115.0000
4127105q	41260M1q	HW	0.00	0.00	0.000	5140.0	21.00	115.0000
4122101q	4121102q	HW	584.71	0.10	0.001	1520.0	48.00	130.0000
4121102q	4121105q	HW	5.08	0.01	0.000	4890.0	12.00	115.0000
4121104q	4127101q	HW	-5.08	-0.01	-0.000	3560.0	12.00	115.0000
4127101q	4127103q	HW	-9.31	-0.95	-2.913	1270.0	2.00	125.0000
4121102q	4127103q	HW	543.24	0.10	0.001	1520.0	48.00	125.0000
4127104q	4128101q	HW	398.82	1.13	0.580	2640.0	12.00	115.0000
4128101q	4129104q	HW	322.90	0.92	0.392	5280.0	12.00	115.0000
4129104q	1497	HW	121.93	0.35	0.065	4270.0	12.00	115.0000
4129104q	4130101q	HW	158.54	0.45	0.105	8080.0	12.00	115.0000
4130101q	4130102q	HW	5.92	0.02	0.000	5550.0	12.00	115.0000
4130102q	4119101q	HW	1.69	0.00	0.000	2480.0	16.00	115.0000
4130101q	4131103q	HW	148.39	0.42	0.093	1310.0	12.00	115.0000
4131103q	4131101q	HW	131.46	1.49	2.815	3960.0	6.00	100.0000
4131101q	5201101q	HW	224.51	0.64	0.200	2600.0	12.00	115.0000
5201101q	DEV-LAS	HW	218.59	1.40	1.490	9200.0	8.00	110.0000
DEV-LAS	DEV-WAR	HW	-777.08	-2.20	-1.995	2880.0	12.00	115.0000
DEV-LAS	DEV-CAL	HW	582.72	1.65	1.171	1360.0	12.00	115.0000
H74-CAL	H74-A	HW	547.15	1.55	1.042	3340.0	12.00	115.0000
H74-A	HOMEPS	HW	1200.00	3.40	4.461	4690.0	12.00	115.0000

H74-CAL	H74-A	HW	547.15	1.55	1.042	3340.0	12.00	115.0000
H74-A	HOMEPS	HW	1200.00	3.40	4.461	4690.0	12.00	115.0000
HOMEPS	5215P71q	HW	0.00	0.00	0.000	2200.0	8.00	110.0000
H74-CAL	HWY-CALS	HW	-500.34	-1.42	-0.883	1140.0	12.00	115.0000
WHI-WAR	H74-WAR	HW	167.26	0.47	0.116	2720.0	12.00	115.0000
HWY-CALS	H74-WAR	HW	-696.74	-1.98	-1.630	4140.0	12.00	115.0000
DEV-CAW	5108102q	HW	38.93	0.11	0.008	2230.0	12.00	115.0000
DEV-CAW	DEV-SAN	HW	-639.98	-1.82	-1.393	2640.0	12.00	115.0000
5108102q	5108106q	HW	0.00	0.00	0.000	2400.0	12.00	115.0000
581118	4132102q	HW	-250.56	-1.60	-1.919	3930.0	8.00	110.0000
4134102q	4134103q	HW	-727.89	-0.92	-0.166	2720.0	18.00	142.0000
4135101q	5102101q	HW	651.23	1.36	0.679	2360.0	14.00	115.0000
5103104q	5102104q	HW	-284.80	-0.81	-0.311	1450.0	12.00	115.0000
5102101q	5102104q	HW	382.96	1.09	0.538	3960.0	12.00	115.0000
4134102q	5103101q	HW	115.61	0.33	0.059	3900.0	12.00	115.0000
5103101q	5103103q	HW	177.43	0.50	0.129	2720.0	12.00	115.0000
5102103q	5102102q	HW	-11885.00	-5.39	-3.320	2250.0	30.00	120.0000
5102102q	STA-ACA	HW	175.00	0.08	0.001	8330.0	30.00	120.0000
5102102q	5101101q	HW	-12060.00	-5.47	-3.412	12040.0	30.00	120.0000
5101101q	50060PWq	HW	-13640.00	-6.19	-4.285	100.0	30.00	120.0000
5110101q	ACA-SAN	HW	7249.22	3.29	1.329	7960.0	30.00	120.0000
ACA-SAN	WEN-SAN	HW	-72.65	-0.21	-0.025	2940.0	12.00	115.0000
ACA-SAN	ACA-CAW	HW	6371.50	2.89	1.047	2680.0	30.00	120.0000
STE-WAR	5118103q	HW	-774.88	-2.20	-1.985	3320.0	12.00	115.0000
5118103q	STE-CAW	HW	-262.82	-0.75	-0.268	1800.0	12.00	115.0000
5120102q	5119101q	HW	524.58	0.66	0.134	5280.0	18.00	115.0000
5120102q	5129101q	HW	441.53	0.56	0.097	3700.0	18.00	115.0000
5129101q	5130T79q	HW	75.00	0.05	0.001	1200.0	24.00	120.0000
5129101q	5130101q	HW	352.14	0.44	0.064	5280.0	18.00	115.0000
5130101q	5225101q	HW	266.57	0.19	0.009	5280.0	24.00	120.0000
5225101q	R9	HW	0.00	0.00	0.000	7880.0	24.00	120.0000
5119101q	5130101q	HW	-60.18	-0.08	-0.002	3700.0	18.00	115.0000
R9	R10	HW	0.00	0.00	0.000	7840.0	24.00	120.0000
5120101q	5116101q	HW	-80.72	-0.23	-0.030	6500.0	12.00	115.0000
5117102q	5120101q	HW	-80.72	-0.23	-0.030	4430.0	12.00	115.0000
WEN-SAN	5117102q	HW	-584.71	-1.66	-1.178	5000.0	12.00	115.0000
5117102q	5116101q	HW	-503.99	-0.64	-0.124	2650.0	18.00	115.0000
5116101q	5116102q	HW	-707.42	-0.89	-0.233	2640.0	18.00	115.0000
5116102q	5121101q	HW	245.42	0.70	0.236	2820.0	12.00	115.0000
5116102q	5115101q	HW	-1075.55	-1.36	-0.506	2640.0	18.00	115.0000
5110101q	5115101q	HW	4004.68	1.82	0.443	5280.0	30.00	120.0000
5115101q	5115102q	HW	2441.69	2.49	1.381	2640.0	20.00	115.0000
5127102q	5127101q	HW	782.79	0.73	0.132	2560.0	21.00	115.0000
5127102q	51270T7q	HW	1000.00	1.60	0.784	2300.0	16.00	115.0000
5127102q	5127P53q	HW	256.93	0.26	0.021	1840.0	20.00	115.0000
R10	FP4	HW	0.00	0.00	-0.000	10.0	24.00	125.0000
4119101q	4119102q	HW	0.00	0.00	0.000	1100.0	12.00	115.0000
4119101q	4124101q	HW	0.00	0.00	0.000	100.0	8.00	110.0000
4131101q	fru2	HW	-109.97	-1.25	-2.023	5440.0	6.00	100.0000
fru2	4132102q	HW	-109.97	-0.70	-0.418	2650.0	8.00	110.0000
4129104q	fru3	HW	17.04	0.05	0.002	2640.0	12.00	115.0000
fru3	4132102q	HW	17.04	0.05	0.002	2640.0	12.00	115.0000
5103102q	fru9	HW	137.31	0.88	0.630	2640.0	8.00	110.0000
fru9	fru8	HW	194.16	1.24	1.197	2640.0	8.00	110.0000
581118	fru10	HW	-510.41	-2.08	-2.417	2620.0	10.00	110.0000
fru11	5103103q	HW	-215.73	-0.88	-0.491	2640.0	10.00	110.0000
fru10	fru11	HW	-375.60	-1.53	-1.262	2640.0	10.00	115.0000
4128101q	fru6	HW	-7.86	-0.05	-0.003	2640.0	8.00	110.0000
fru6	fru7	HW	-16.71	-0.11	-0.013	2640.0	8.00	110.0000
fru11	fru9	HW	56.85	0.36	0.123	1354.0	8.00	110.0000
fru3	fru15	HW	0.00	0.00	0.000	1600.0	8.00	110.0000
fru16	fru6	HW	-78.36	-0.50	-0.223	2640.0	8.00	110.0000
fru6	fru17	HW	-69.51	-0.44	-0.179	1320.0	8.00	110.0000
fru7	fru18	HW	-793.00	-1.27	-0.510	1320.0	16.00	115.0000
fru17	fru18	HW	-69.51	-0.44	-0.179	2640.0	8.00	110.0000
4134103q	fru19	HW	-1003.36	-1.27	-0.483	2041.3	18.00	110.0000
fru21	4135101q	HW	-299.82	-1.22	-0.902	1184.0	10.00	110.0000
fru21	fru20	HW	-703.53	-0.89	-0.230	2150.0	18.00	115.0000
fru20	fru22	HW	-703.53	-2.00	-1.660	1000.0	12.00	115.0000

fru21	fru20	HW	-703.53	-0.89	-0.230	2150.0	18.00	115.0000
fru20	fru22	HW	-703.53	-2.00	-1.660	1000.0	12.00	115.0000
4135101q	WELL25	HW	-1196.47	-1.91	-1.010	1600.0	16.00	120.0000
5103104q	fru24	HW	175.22	0.50	0.126	1033.5	12.00	115.0000
fru24	5103101q	HW	175.22	0.50	0.126	1646.5	12.00	115.0000
5102103q	fru23	HW	11752.14	5.33	3.252	2420.9	30.00	120.0000
fru23	WELL23	HW	11752.14	5.33	3.252	1389.1	30.00	120.0000
5102104q	FRU25	HW	0.00	0.00	0.000	483.1	8.00	110.0000
4127105q	FRU22	HW	-588.15	-1.67	-1.191	466.6	12.00	115.0000
FRU22	QUANT	HW	-215.20	-1.37	-1.448	1520.0	8.00	110.0000
FRU27	4134102q	HW	-498.88	-0.63	-0.122	1020.0	18.00	115.0000
4127102q	4127104q	HW	0.00	0.00	0.000	1200.0	6.00	100.0000
fru18	4134101q	HW	-862.51	-1.38	-0.596	1320.0	16.00	115.0000
4134101q	FRU27	HW	-498.88	-1.04	-0.414	700.0	14.00	115.0000
4134101q	FRU21	HW	-100.59	-0.29	-0.045	2081.0	12.00	115.0000
fru7	FRU28	HW	84.32	0.54	0.255	0.7	8.00	110.0000
FRU28	fru11	HW	216.72	1.38	1.467	0.3	8.00	110.0000
4132102q	FRU29	HW	-643.92	-1.03	-0.347	2640.0	16.00	115.0000
FRU29	fru7	HW	-691.97	-1.10	-0.396	3043.4	16.00	115.0000
fru16	FRU29	HW	78.36	0.50	0.223	2620.0	8.00	110.0000
FRU29	fru10	HW	126.42	0.81	0.541	3930.0	8.00	110.0000
fru10	fru8	HW	-8.39	-0.05	-0.004	1320.0	8.00	110.0000
581118	DEV-SAN	HW	639.04	1.81	1.389	3960.0	12.00	115.0000
FRU28	FRU21	HW	-132.40	-0.85	-0.589	2640.0	8.00	110.0000
DEV-SAN	FRU30	HW	-185.76	-0.53	-0.141	2640.0	12.00	115.0000
FRU31	5110101q	HW	11253.90	3.55	1.235	4341.7	36.00	120.0000
FRU20	4134101q	HW	611.71	1.74	1.281	221.6	12.00	115.0000
5103103q	FRU14	HW	-119.00	-0.76	-0.483	916.5	8.00	110.0000
FRU14	5103102q	HW	137.31	0.88	0.630	383.5	8.00	110.0000
WEN-SAN	5118103q	HW	512.06	1.45	0.922	5014.8	12.00	115.0000
4102101q	CAL-END	HW	97.54	0.40	0.104	2300.0	10.00	115.0000
WHI-WAR	STE-WAR	HW	-342.44	-0.97	-0.437	2600.0	12.00	115.0000
FRU1	ACA-SAN	HW	-764.20	-2.17	-1.934	50.0	12.00	115.0000
DEV-SAN	FRU6	HW	-1.36	-0.00	-0.000	1320.0	12.00	115.0000
FRU6	FRU1	HW	-320.98	-0.91	-0.388	1320.0	12.00	115.0000
FRU4	FRU2	HW	-762.84	-2.16	-1.928	600.0	12.00	115.0000
FRU2	FRU1	HW	-443.22	-1.26	-0.705	2200.0	12.00	115.0000
FRU6	FRU2	HW	319.63	0.91	0.385	2700.0	12.00	115.0000
FRU30	fru8	HW	-185.76	-2.11	-5.340	2147.0	6.00	100.0000
FRU4	4108PRD	HW	-9.51	-0.03	-0.001	126.3	12.00	115.0000
4108PRS	ACA-CAW	HW	-9.51	-0.03	-0.001	232.1	12.00	115.0000
4134103q	5103104q	HW	51.21	0.33	0.101	3362.0	8.00	110.0000
fru19	WELL27	HW	-1003.36	-1.27	-0.483	2890.1	18.00	110.0000
WELL27	fru21	HW	-1003.36	-1.27	-0.483	817.3	18.00	110.0000
FRU25	4102VLD	HW	0.00	0.00	0.000	1242.3	12.00	115.0000
4102VLS	5102103q	HW	0.00	0.00	0.000	192.4	12.00	115.0000
fru24	4103VLD	HW	0.00	0.00	-0.000	1285.9	8.00	110.0000
4103VLS	fru23	HW	0.00	0.00	0.000	27.5	8.00	110.0000
FRU17	4103101q	HW	-1248.23	-0.25	-0.007	264.4	45.00	125.0000
4103101q	FRU31	HW	11253.90	2.27	0.386	1017.7	45.00	125.0000
WELL23	4103VPS	HW	12502.14	5.67	3.647	3240.0	30.00	120.0000
4122102q	cut1	HW	121.93	0.35	0.065	2639.2	12.00	115.0000
H74-WAR	FLO-WAR	HW	-772.35	-2.19	-1.973	1019.6	12.00	115.0000
FLO-WAR	FRU4	HW	-772.35	-2.19	-1.973	3940.8	12.00	115.0000
FRU26	FRU18	HW	-522.29	-0.11	-0.001	3036.6	45.00	125.0000
FRU21	FRU19	HW	-232.99	-0.66	-0.214	354.9	12.00	115.0000
FRU19	5103103q	HW	236.64	0.67	0.221	1524.1	12.00	115.0000
FRU23	FRU24	HW	533.93	0.11	0.001	638.8	45.00	125.0000
FRU24	FRU26	HW	187.65	0.04	0.000	5134.1	45.00	125.0000
4127104q	FRU32	HW	-444.52	-1.26	-0.709	53.7	12.00	115.0000
FRU32	FRU20	HW	-98.24	-0.28	-0.043	5004.7	12.00	115.0000
HWY-CALS	CAL-STET	HW	121.93	0.35	0.065	6280.0	12.00	115.0000
ACA-CAW	WHIT-CAW	HW	1595.36	1.13	0.239	2641.1	24.00	120.0000
WHIT-CAW	STE-CAW	HW	1595.36	1.13	0.239	2638.9	24.00	120.0000
WHI-WAR	WHIT-CAW	HW	0.00	0.00	-1.700	5200.2	0.03	120.0000
DEV-WAR	DEV-OWAR	HW	-521.66	-1.48	-0.954	1048.8	12.00	115.0000
DEV-OWAR	DEV-CAW	HW	-385.08	-1.09	-0.544	5291.2	12.00	115.0000
DEV-OWAR	5212TTCq	HW	-1843.41	-0.58	-0.043	5900.0	36.00	120.0000
4127103q	MANNY	HW	533.93	0.09	0.001	1181.0	48.00	125.0000

DEV-OWAR	5212TTCq	HW	-1843.41	-0.58	-0.043	5900.0	36.00	120.0000
4127103q	MANNY	HW	533.93	0.09	0.001	1181.0	48.00	125.0000
MANNY	FRU23	HW	533.93	0.09	0.001	1107.2	48.00	125.0000
FRU18	MOE	HW	-991.93	-0.20	-0.004	1511.8	45.00	125.0000
MGE	FRU17	HW	-991.93	-0.20	-0.004	512.8	45.00	125.0000
STE-CAW	JACK	HW	1055.82	0.75	0.111	3626.9	24.00	120.0000
JACK	5120102q	HW	1055.82	0.75	0.111	633.1	24.00	120.0000
5115102q	DICK	HW	2076.96	2.12	0.946	7426.2	20.00	120.0000
DICK	5127102q	HW	2076.96	2.12	0.946	573.8	20.00	120.0000
WELL25	fru22	HW	703.53	0.89	0.230	2300.0	18.00	115.0000
5227101q	SIMPATVE	HW	0.00	0.00	0.000	30.0	24.00	120.0000
SIMPAVN	SIMPAVN2	HW	0.00	0.00	-0.000	30.0	24.00	120.0000
FRU22	STA-COM	HW	-397.34	-1.13	-0.532	1400.0	12.00	120.0000
STA-COM	4122102q	HW	561.15	1.59	1.009	1400.0	12.00	120.0000
EAG-COM	EAG-COU	HW	-359.85	-1.02	-0.443	1000.0	12.00	120.0000
QUANT	EAG-COU	HW	-337.13	-2.15	-2.830	400.0	8.00	120.0000
STA-COM	GOL-COM	HW	-978.48	-2.78	-2.825	698.6	12.00	120.0000
GOL-COM	EAG-COM	HW	-259.85	-0.74	-0.243	701.4	12.00	120.0000
GOL-COM	GOL-COU	HW	-738.63	-2.10	-1.679	1000.0	12.00	120.0000
GOL-COU	EAG-COU	HW	761.37	2.16	1.775	600.0	12.00	120.0000
cut2	WES-COU	HW	-24.39	-0.07	-0.003	2000.0	12.00	115.0000
EAG-COU	WES-COU	HW	44.39	0.13	0.009	1750.0	12.00	120.0000
DEV-WAR	DEV-LAS	HW	4203.56	2.98	1.436	4000.0	24.00	120.0000
DEV-LAS	DEV-CAL	HW	3764.04	2.67	1.171	1360.0	24.00	120.0000
DEV-OWAR	DEV-WAR	HW	5352.06	2.43	0.758	1320.0	30.00	120.0000
B-A	U-A	HW	996.85	2.83	2.924	200.0	12.00	120.0000
U-A	U-V	HW	974.17	2.76	2.802	200.0	12.00	120.0000
U-V	U-W	HW	116.99	0.33	0.055	275.0	12.00	120.0000
U-W	U-X	HW	-149.92	-0.43	-0.088	250.0	12.00	120.0000
U-X	U-Y	HW	-423.56	-1.20	-0.599	250.0	12.00	120.0000
U-Y	5211102q	HW	-729.54	-2.07	-1.640	850.0	12.00	120.0000
GG-A	GG-V	HW	136.52	0.39	0.074	150.0	12.00	120.0000
GG-V	U-V	HW	-834.50	-2.37	-2.104	800.0	12.00	120.0000
GG-V	GG-W	HW	-336.56	-2.15	-2.821	260.0	8.00	120.0000
GG-W	U-W	HW	-244.23	-1.56	-1.558	600.0	8.00	120.0000
GG-W	GG-X	HW	-115.01	-0.73	-0.386	250.0	8.00	120.0000
GG-X	U-X	HW	-250.95	-1.60	-1.638	525.0	8.00	120.0000
GG-Y	U-Y	HW	-283.30	-1.81	-2.050	500.0	8.00	120.0000
GG-V	BB-CC	HW	1284.90	3.64	4.679	230.0	12.00	120.0000
BB-CC	CC-FF	HW	1545.36	4.38	6.586	2050.0	12.00	120.0000
BB-CC	BB-Z	HW	-283.15	-1.81	-2.048	600.0	8.00	120.0000
BB-Z	BB-Y	HW	-114.20	-0.73	-0.381	250.0	8.00	120.0000
BB-Y	GG-Y	HW	-159.56	-1.02	-0.708	800.0	8.00	120.0000
GG-X	GG-Z	HW	113.26	0.72	0.375	215.0	8.00	120.0000
GG-Z	GG-Y	HW	-101.05	-0.65	-0.304	215.0	8.00	120.0000
BB-Z	GG-Z	HW	-191.63	-1.22	-0.994	600.0	8.00	120.0000
BB-Y	BB-HP	HW	22.68	0.14	0.019	250.0	8.00	120.0000
CC-FF	FF-HP	HW	1522.68	9.72	46.171	650.0	8.00	120.0000
GG-A	GG-JJ	HW	-159.21	-0.45	-0.098	330.0	12.00	120.0000
GG-JJ	LL-JJ	HW	-144.08	-0.92	-0.586	370.0	8.00	120.0000
LL-JJ	LL-RR	HW	-166.76	-1.06	-0.768	350.0	8.00	120.0000
LL-RR	RR-EASE	HW	-340.66	-2.17	-2.885	2000.0	8.00	120.0000
DEV-CAL	EASE-CAL	HW	483.57	3.09	6.484	700.0	8.00	110.0000
EASE-CAL	4102101q	HW	97.54	0.62	0.334	5260.0	8.00	110.0000
RR-EASE	EASE-CAL	HW	-363.34	-2.32	-3.251	100.0	8.00	120.0000
KK-END	II-JJ	HW	-22.68	-0.14	-0.019	600.0	8.00	120.0000
II-JJ	NN-JJ	HW	1.38	0.01	0.000	250.0	8.00	120.0000
NN-JJ	GG-JJ	HW	37.81	0.24	0.049	350.0	8.00	120.0000
OO-RR	II-JJ	HW	26.57	0.17	0.026	750.0	8.00	120.0000
LL-RR	NN-RR	HW	151.22	0.97	0.641	630.0	8.00	120.0000
NN-RR	OO-RR	HW	69.43	0.44	0.152	300.0	8.00	120.0000
NN-RR	NN-JJ	HW	59.11	0.38	0.113	575.0	8.00	120.0000
OO-RR	II-JJ	HW	20.17	0.13	0.015	1250.0	8.00	120.0000
B-A	T-A	HW	-2511.52	-4.01	-3.987	225.0	16.00	120.0000
T-A	T-N	HW	-3367.82	-4.25	-3.868	900.0	18.00	120.0000
DEV-CAL	B-N	HW	3413.19	4.30	3.965	800.0	18.00	120.0000
B-N	T-N	HW	3390.51	4.27	3.917	200.0	18.00	120.0000
T-A	J-A	HW	833.62	1.33	0.517	310.0	16.00	120.0000
J-A	K-A	HW	722.53	1.15	0.397	290.0	16.00	120.0000

T-A	J-A	HW	833.62	1.33	0.517	310.0	16.00	120.0000
J-A	K-A	HW	722.53	1.15	0.397	290.0	16.00	120.0000
K-A	Q-A	HW	621.76	0.99	0.301	150.0	16.00	120.0000
Q-A	M-A	HW	545.78	0.87	0.236	380.0	16.00	120.0000
M-A	A-K	HW	523.10	0.83	0.218	100.0	16.00	120.0000
A-K	A-J	HW	609.12	0.97	0.289	320.0	16.00	120.0000
A-J	C-A	HW	652.16	1.04	0.328	480.0	16.00	120.0000
C-A	DDD-A	HW	448.04	0.71	0.164	430.0	16.00	120.0000
DDD-A	H74-A	HW	661.31	1.06	0.337	400.0	16.00	120.0000
DDD-A	DDD-EEE	HW	-235.96	-1.51	-1.461	170.0	8.00	120.0000
DDD-EEE	CCC-DDD	HW	-129.32	-0.83	-0.480	1530.0	8.00	120.0000
CCC-DDD	DDD-EEE	HW	129.32	0.83	0.480	1530.0	8.00	120.0000
CCC-DDD	CCC-MMM	HW	-281.32	-1.80	-2.024	280.0	8.00	120.0000
CCC-MMM	MMM-NNN	HW	-137.36	-0.88	-0.537	260.0	8.00	120.0000
DEV-CAL	CCC-CAL	HW	427.32	2.73	5.157	900.0	8.00	110.0000
CCC-CAL	H74-CAL	HW	55.28	0.35	0.117	1740.0	8.00	110.0000
CCC-CAL	CCC-NNN	HW	349.36	2.23	3.023	250.0	8.00	120.0000
CCC-NNN	CCC-MMM	HW	166.64	1.06	0.767	1620.0	8.00	120.0000
CCC-NNN	MMM-NNN	HW	160.04	1.02	0.712	1550.0	8.00	120.0000
J-A	J-HP	HW	88.41	0.56	0.237	900.0	8.00	120.0000
J-HP	A-J	HW	65.73	0.42	0.137	1100.0	8.00	120.0000
K-A	K-HP	HW	78.08	0.50	0.189	550.0	8.00	120.0000
K-HP	A-K	HW	55.40	0.35	0.100	530.0	8.00	120.0000
Q-A	A-K	HW	53.30	0.34	0.093	1200.0	8.00	120.0000
C-A	ZZ-CC	HW	181.45	0.51	0.125	300.0	12.00	120.0000
ZZ-CC	D-C	HW	108.34	0.31	0.048	350.0	12.00	120.0000
D-C	C-HP	HW	22.68	0.14	0.019	470.0	8.00	120.0000
D-C	D-E	HW	62.98	0.18	0.018	520.0	12.00	120.0000
ZZ-CC	ZZ-BBB	HW	50.42	0.32	0.084	320.0	8.00	120.0000
ZZ-BBB	ZZ-AAA	HW	27.74	0.18	0.028	725.0	8.00	120.0000
ZZ-AAA	AAA-HP	HW	22.68	0.14	0.019	250.0	8.00	120.0000
D-E	E-D	HW	8.94	0.06	0.003	1420.0	8.00	120.0000
D-E	E-D	HW	31.36	0.09	0.005	1000.0	12.00	120.0000
ZZ-AAA	E-D	HW	-17.63	-0.11	-0.012	1350.0	8.00	120.0000
5211T37q	5211102q	HW	729.54	4.66	12.788	1600.0	8.00	115.0000
DEV-OWAR	DEV-CAW	HW	-4478.24	-2.03	-0.545	5280.0	30.00	120.0000
DEV-CAW	ACA-CAW	HW	-4549.14	-2.06	-0.561	2640.0	30.00	120.0000
FP4	SIMPAVE2	HW	0.00	0.00	0.000	9269.8	24.00	120.0000

*** PUMP PERFORMANCE ***

PUMP ELEMENT	TYPE	SPEED rpm	HEAD ft	FLOW gpm	NPSHR ft	NPSHA ft	DEFICIT ft
QUANDT	GOL-COU	PE	0.0	0.00	0.00	0.00	0.00

*** PUMP ENERGY USE ***

PUMP ELEMENT	EFFICIENCY	POWER hp	COST-RATE \$/hour	ENERGY kw-hr	COST Dollars
QUANDT	GOL-COU	0.00	0.00	0.00	0.00

*** TANK STATUS ***

FROM NODE	TO NODE	HGL, ft	LEVEL, ft	VOLUME, MG	VOL CHANGE, MG	FLOW, gpm	TAU
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FROM NODE	TO NODE	HGL. ft	LEVEL. ft	VOLUME. MG	VOL CHANGE. MG	FLOW. gpm	TAU
5130T79q	CAWSTON	1701.000	20.00	0.042857	0.000000	75.00200	1.000
51270T7q	DIAMOND	1701.000	16.00	0.043750	0.000000	1000.002	1.000
5211T37q	FRUITVAI	1703.000	16.00	0.043750	0.000000	-729.537	1.000
5212TTCq	TRESCERR	1699.000	20.00	3.800000	0.000000	-1843.41	1.000

*** VALVE REPORT ***

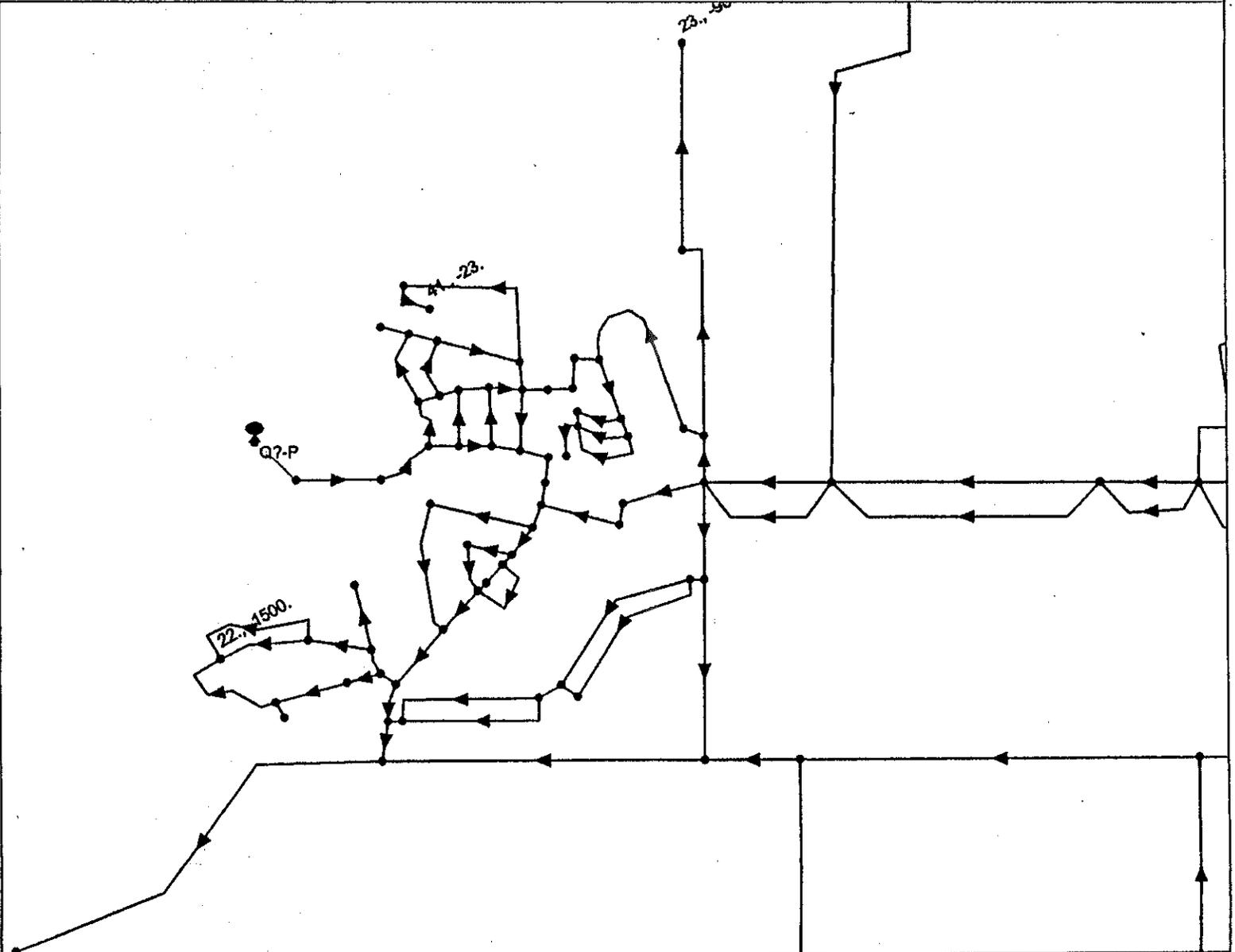
FROM NODE	TO NODE	TYPE	FLOW gpm	HEAD DROP ft	TAU	KO	DIA in
FRU20	FRU26	VL	-418.98	-0.02	1.000	1.0000	12.00
FRU14	FRU17	VL	-256.31	-0.04	1.000	1.0000	8.00
4108PRS	4108PRD	VL	9.51	0.00	1.000	1.0000	12.00
4102VLS	4102VLD	VL	0.00	43.08	0.000	1.0000	12.00
4103VLS	4103VLD	VL	0.00	35.79	0.000	1.0000	12.00
4103VPS	4103101q	VL	12502.14	19.53	1.000	1.0000	12.00
FRU18	FRU19	VL	469.63	0.14	1.000	1.0000	8.00
FRU20	FRU26	VL	-290.96	-0.02	1.000	1.0000	10.00
FRU32	FRU24	VL	-346.28	-0.24	1.000	1.0000	6.00
SIM-WIN	SIMBYPAS	VL	0.00	0.00	1.000	1.0000	24.00
SIMPATVS	SIM-WIN	VL	0.00	0.00	1.000	1.0000	42.00
SIM-WIN	5227101q	VL	0.00	0.00	1.000	1.0000	24.00
SIM-WIN	SIMPATVN	VL	0.00	0.00	1.000	1.0000	12.00
SIMPATVE	SIMPAVN	VL	0.00	0.00	1.000	1.0000	42.00
SIMPAVE2	SIMPATVE	VL	0.00	0.00	1.000	1.0000	24.00
SIMPAVN2	SIMBYPAS	VL	0.00	0.00	0.000	1.0000	24.00

HEARTLAND PROPOSED SYSTEM W/ ADD. CAP. 2760 GPM MDD + 1500 GPM FF TO HEARTLAND PA 4

Model Name: heartlan

April 13, 1999 02:34 PM

VELOCITY (ft/sec)		
---RANGE---	COUNT	
BELOW 0.01	23	
0.01 2.00	184	
2.00 5.00	47	
5.00 10.00	6	
ABOVE 10.00	0	
NON-PIPE	21	
MIN = 0.00000		
MAX = 6.19098		
ANNOTATION:		
NODE P	psig	
NODE Q	gpm	
NODE OFF		
ELEM OFF		
State: Balanced		
Corners: (FEET)		
UL: (1750650, 583005)		
LL: (1750650, 574504)		
UR: (1764238, 583005)		
LR: (1764238, 574504)		



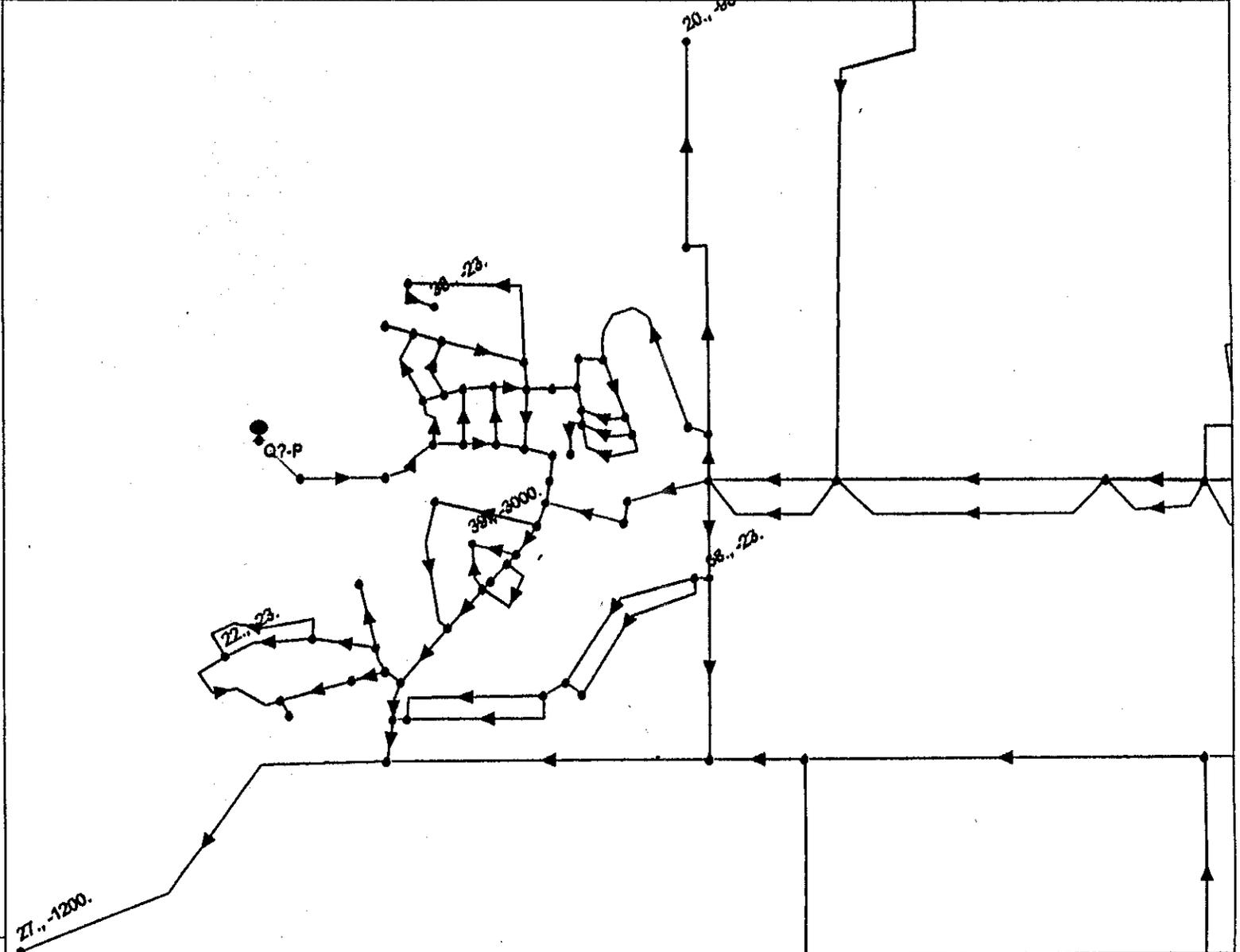
SCENARIO No. 2, PLOT A

HEARTLAND PROPOSED SYSTEM W/ ADD. CAP. 2760 GPM MDD + 3000 GPM FF TO HEARTLAND PA 3A HIGH DENSITY

Model Name: heartlan

April 13, 1999 03:20 PM

VELOCITY (ft/sec)		
---RANGE---	COUNT	
BELOW 0.01	22	
0.01 2.00	184	
2.00 5.00	40	
5.00 10.00	14	
ABOVE 10.00	0	
NON-PIPE	21	
MIN = 0.00000		
MAX = 9.65146		
ANNOTATION:		
NODE P	psig	
NODE Q	gpm	
NODE OFF		
ELEM OFF		
State: Balanced		
Corners: (FEET)		
UL: (1750650, 583005)		
LL: (1750650, 574504)		
UR: (1764238, 583005)		
LR: (1764238, 574504)		



SCENARIO No. 4, PLOT A

SynerGEE Water Version 3.00 13Jul98

HEARTLAND

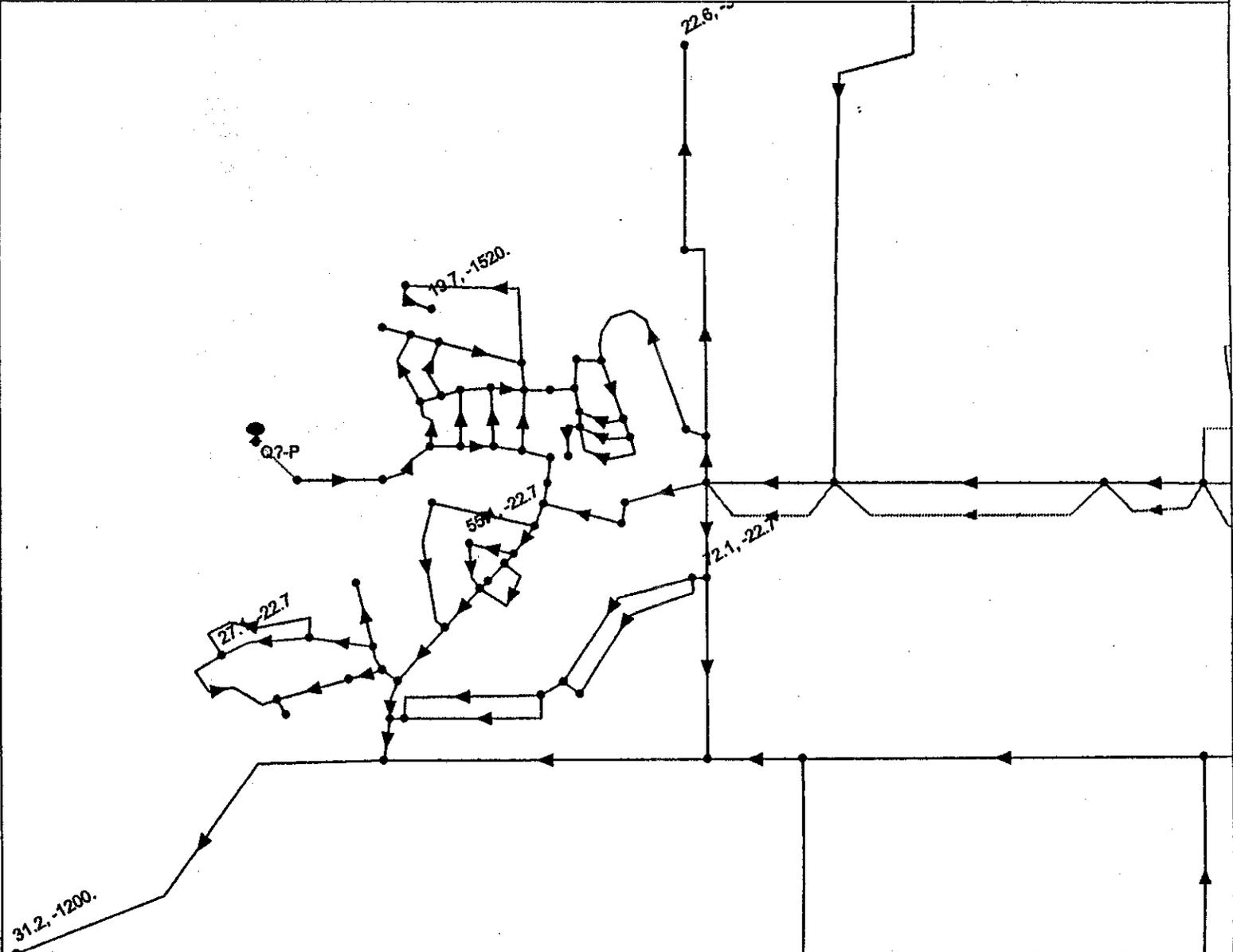
HEARTLAND ONLY SYSTEM W/ NO ADD. CAP.

2760 GPM MDD + 1500 GPM FF TO HEARTLAND PA 11

Model Name: heartlan

April 13, 1999 03:55 PM

INTERNAL DIAH (in)		
----	RANGE----	COUNT
BELOW	7.00	6
	7.00 9.00	77
	9.00 13.00	96
	13.00 17.00	18
	17.00 19.00	14
ABOVE	19.00	49
NON-PIPE		21
MIN = 0.03000		
MAX = 51.00000		
ANNOTATION:		
NODE P	psig	
NODE Q	gpm	
NODE OFF		
ELEM OFF		
State: Balanced		
Corners: (FEET)		
UL: (1750650, 583005)		
LL: (1750650, 574504)		
UR: (1764238, 583005)		
LR: (1764238, 574504)		



SCENARIO No. 5, PLOT A

SynerGEE Water Version 3.00 13Jul98

HEARTLAND

SCENARIO 5 - HEARTLAND ONLY SYSTEM @ MDD +FF W/ NO ADD

heartlan

April 13, 1999 at 03:57 PM

SynerGEE Water
Stoner Associates, Inc.
1170 Harrisburg Pike
Carlisle, PA 17013

*** TRACE NOT ON FOR THIS TIMESTEP ***

*** TIME= 0.000 hours TIME STEP= 0 10 ITERATIONS

*** NODE REPORT ***

NODE	TYPE	ELEVATION ft	PRESSURE psig	HGL ft	NODE FLOW gpm
1497	QC	1490.00	98.93	1718.30	-121.930
4102101q	QC	1580.00	45.70	1685.47	0.000
4102VLD	QC	1597.46	54.43	1723.07	0.000
4102VLS	QC	1598.05	72.85	1766.15	0.000
4103101q	QC	1565.29	68.09	1722.41	0.000
4103VLD	QC	1586.84	58.78	1722.49	0.000
4103VLS	QC	1586.93	74.25	1758.27	0.000
4103VPS	QC	1565.29	76.55	1741.94	0.000
4108PRD	QC	1511.56	83.08	1703.27	0.000
4108PRS	QC	1511.56	83.08	1703.27	0.000
41150P1q	QC	1504.00	94.65	1722.40	0.000
4119101q	QC	1483.00	101.74	1717.78	-1.693
4119102q	QC	1477.00	104.34	1717.78	0.000
4121102q	QC	1520.00	87.71	1722.40	-36.389
4121104q	QC	1496.00	96.51	1718.70	-5.078
4121105q	QC	1476.00	106.78	1722.40	-5.078
4122101q	QC	1520.00	87.71	1722.40	-320.733
4122102q	QC	1512.00	91.18	1722.40	-121.930
4124101q	QC	1480.00	103.04	1717.78	0.000
41260M1q	QC	1550.00	74.76	1722.52	0.000
4127101q	QC	1510.00	90.44	1718.70	-4.231
4127102q	QC	1520.00	87.59	1722.12	0.000
4127103q	QC	1520.00	87.71	1722.40	0.000
4127104q	QC	1519.00	88.02	1722.12	-45.698
4127105q	QC	1522.00	86.89	1722.52	0.000
4128101q	QC	1515.00	89.10	1720.61	-83.780
4129104q	QC	1510.00	90.39	1718.57	-25.387
4130101q	QC	1494.00	96.98	1717.78	-4.231
4130102q	QC	1494.00	96.98	1717.78	-4.231
4131101q	QC	1501.00	89.46	1707.44	-16.925
4131103q	QC	1514.00	88.26	1717.67	-16.925
4132102q	QC	1517.00	87.35	1718.56	-300.422
4134101q	QC	1540.00	78.91	1722.09	-348.659
4134102q	QC	1551.00	74.32	1722.51	-113.399
4134103q	QC	1550.00	74.95	1722.96	-224.259
4135101q	QC	1576.00	65.35	1726.80	-245.417
50060PWq	QC	1650.00	71.56	1815.12	13640.000
5101101q	QC	1650.00	71.37	1814.69	-1580.000
5102101q	QC	1605.00	52.09	1725.20	-268.264
5102102q	QC	1641.00	57.47	1773.62	0.000
5102103q	QC	1600.00	72.00	1766.15	-132.863
5102104q	QC	1580.00	62.00	1723.07	-98.166
5103101q	QC	1576.00	63.39	1722.28	-113.399
5103102q	QC	1564.00	68.53	1722.13	0.000
5103103q	QC	1560.00	70.17	1721.93	-317.345
5103104q	QC	1566.00	67.87	1722.62	-160.790
5108102q	QC	1510.00	83.12	1701.81	-38.928
5108106q	QC	1520.00	78.79	1701.81	0.000
5110101q	QC	1572.00	62.68	1716.65	0.000
5115101q	QC	1568.00	63.40	1714.29	-487.445
5115102q	QC	1589.00	52.70	1710.62	-364.738
5116101q	QC	1536.00	76.42	1712.35	-122.708
5116102q	QC	1550.00	70.62	1712.96	-122.708
5117102q	QC	1525.00	81.05	1712.02	0.000

5116102q	QC	1550.00	70.62	1712.96	-122.708
5117102q	QC	1525.00	81.05	1712.02	0.000
5118103q	QC	1508.00	83.82	1701.42	0.000
5119101q	QC	1503.00	85.67	1700.68	-584.764
5120101q	QC	1527.00	80.24	1712.15	0.000
5120102q	QC	1519.00	79.05	1701.42	-89.704
5121101q	QC	1547.00	71.63	1712.29	-245.417
51270T7q	QC	1685.00	6.99	1701.13	0.000
5127101q	QC	1568.00	58.34	1702.63	-782.789
5127102q	QC	1578.00	54.16	1702.97	-37.235
5127P53q	QC	1606.00	42.01	1702.93	-256.930
5129101q	QC	1572.00	55.91	1701.00	-14.386
5130101q	QC	1503.00	85.67	1700.69	-25.387
5130T79q	QC	1681.00	8.67	1701.00	0.000
5201101q	QC	1517.00	82.32	1706.96	-5.924
5211102q	QC	1662.00	8.36	1681.28	0.000
5211T37q	QC	1687.00	6.90	1702.93	0.000
5212TTCq	QC	1679.00	8.67	1699.00	0.000
5215P71q	QC	1560.00	42.93	1659.07	0.000
5225101q	QC	1485.00	93.45	1700.64	-266.573
5227101q	QC	1475.00	97.78	1700.64	0.000
581118	QC	1521.00	82.33	1710.98	-121.930
A-J	QC	1540.00	61.07	1680.93	-22.682
A-K	QC	1544.00	59.43	1681.14	-22.682
AAA-HP	QC	1587.00	40.50	1680.45	-22.682
ACA-CAW	QC	1512.00	82.89	1703.27	-217.487
ACA-SAN	QC	1522.00	79.77	1706.07	-186.177
B-A	QC	1593.70	37.65	1680.58	-1514.671
B-N	QC	1540.00	64.14	1688.02	-22.682
BB-CC	QC	1563.00	49.40	1676.99	-22.682
BB-HP	QC	1590.00	38.25	1678.26	-22.682
BB-Y	QC	1584.00	40.85	1678.26	-22.682
BB-Z	QC	1578.00	43.41	1678.17	-22.682
C-A	QC	1540.00	60.90	1680.54	-22.682
C-HP	QC	1563.00	50.91	1680.48	-22.682
CAL-END	QC	1633.00	22.63	1685.23	-97.544
CAL-STET	QC	1499.00	80.76	1685.36	-121.930
CAWSTON	PC	1721.00	0.00	1701.00	0.000
CC-FF	QC	1604.00	25.78	1663.49	-22.682
CCC-CAL	QC	1519.00	72.14	1685.46	-22.682
CCC-DDD	QC	1527.00	67.12	1681.89	-22.682
CCC-MMM	QC	1526.00	67.91	1682.71	-22.682
CCC-NNN	QC	1521.00	70.83	1684.44	-22.682
D-C	QC	1556.00	53.95	1680.48	-22.682
D-E	QC	1565.00	50.04	1680.47	-22.682
DDD-A	QC	1535.00	63.01	1680.41	-22.682
DDD-EEE	QC	1540.00	61.01	1680.79	-22.682
DEV-CAL	QC	1528.00	71.47	1692.93	-22.682
DEV-CAW	QC	1514.00	81.40	1701.83	-286.880
DEV-LAS	QC	1512.00	79.08	1694.49	-19.460
DEV-OWAR	QC	1508.16	82.72	1699.03	0.000
DEV-SAN	QC	1524.00	78.64	1705.47	-186.177
DEV-WAR	QC	1507.00	82.99	1698.51	-60.087
DIAMOND	PC	1717.00	0.00	1701.00	0.000
DICK	QC	1578.79	54.05	1703.52	0.000
E-D	QC	1618.00	27.07	1680.47	-22.670
EAG-COM	QC	1522.00	88.39	1725.96	-100.000
EAG-COU	QC	1522.00	88.58	1726.40	-20.000
EASE-CAL	QC	1530.00	68.13	1687.22	-22.682
FF-HP	QC	1588.00	19.71	1633.48	-1522.682
FLO-WAR	QC	1503.92	82.88	1695.16	0.000
FP4	QC	1459.00	104.72	1700.64	0.000
FRU1	QC	1522.17	79.65	1705.97	0.000
FRU14	QC	1560.00	70.36	1722.37	0.000
FRU17	QC	1560.20	70.29	1722.41	0.000
FRU18	QC	1551.32	74.14	1722.40	0.000
FRU19	QC	1547.02	75.94	1722.26	0.000
FRU2	QC	1513.70	82.65	1704.42	0.000
FRU20	QC	1538.56	79.66	1722.37	0.000

FRU2	QC	1513.70	82.65	1704.42	0.000
FRU20	QC	1538.56	79.66	1722.37	0.000
FRU21	QC	1544.00	77.22	1722.19	0.000
FRU22	QC	1522.00	87.14	1723.07	-24.386
FRU23	QC	1519.18	88.07	1722.40	0.000
FRU24	QC	1521.32	87.14	1722.40	0.000
FRU25	QC	1584.89	59.88	1723.07	0.000
FRU26	QC	1538.56	79.67	1722.40	0.000
FRU27	QC	1550.00	74.70	1722.38	0.000
FRU28	QC	1541.00	77.85	1720.65	0.000
FRU29	QC	1528.00	82.97	1719.46	0.000
FRU30	QC	1541.00	71.44	1705.84	0.000
FRU31	QC	1565.05	68.02	1722.02	0.000
FRU32	QC	1519.21	87.95	1722.16	0.000
FRU4	QC	1511.32	83.18	1703.26	0.000
FRU6	QC	1522.88	79.13	1705.47	0.000
FRUITVAI	PC	1719.00	0.00	1703.00	0.000
GG-A	QC	1560.00	51.18	1678.10	-22.682
GG-JJ	QC	1563.00	49.91	1678.16	-22.682
GG-V	QC	1561.00	50.74	1678.08	-22.682
GG-W	QC	1564.00	49.72	1678.74	-22.682
GG-X	QC	1567.00	48.46	1678.83	-22.682
GG-Y	QC	1573.00	45.85	1678.81	-22.682
GG-Z	QC	1570.00	47.13	1678.75	-22.682
GOL-COM	QC	1522.00	88.31	1725.79	-20.000
GOL-COU	QC	1522.00	89.04	1727.47	1500.000
H74-A	QC	1532.00	64.13	1679.99	-8.462
H74-CAL	QC	1512.00	74.82	1684.64	-8.462
H74-WAR	QC	1502.00	82.80	1693.06	-242.877
HOMEPS	QC	1587.00	31.23	1659.07	-1200.000
HWY-CALS	QC	1504.00	78.77	1685.76	-74.471
II-JJ	QC	1551.00	55.13	1678.21	-22.682
J-A	QC	1542.00	60.37	1681.31	-22.682
J-HP	QC	1556.00	54.21	1681.09	-22.682
JACK	QC	1518.70	79.21	1701.49	0.000
K-A	QC	1544.00	59.47	1681.24	-22.682
K-HP	QC	1554.00	55.11	1681.17	-22.682
KK-END	QC	1545.00	57.72	1678.20	-22.680
LL-JJ	QC	1570.00	47.01	1678.48	-22.682
LL-RR	QC	1558.00	52.38	1678.86	-22.682
M-A	QC	1544.00	59.44	1681.15	-22.682
MANNY	QC	1519.58	87.89	1722.40	0.000
MMM-NNN	QC	1529.00	66.70	1682.91	-22.682
MOE	QC	1557.95	71.27	1722.41	0.000
NN-JJ	QC	1556.00	52.96	1678.21	-22.682
NN-RR	QC	1545.00	57.77	1678.31	-22.682
OO-RR	QC	1540.00	59.91	1678.24	-22.682
Q-A	QC	1545.00	59.03	1681.21	-22.682
QUANDT	PC	1300.00	43.34	1400.01	0.000
QUANT	QC	1524.00	87.22	1725.27	-121.930
R10	QC	1459.00	104.72	1700.64	0.000
R9	QC	1472.00	99.08	1700.64	0.000
RR-EASE	QC	1550.00	59.28	1686.79	-22.682
SIM-WIN	QC	1475.00	97.78	1700.64	0.000
SIMBYPAS	QC	1474.85	97.85	1700.64	0.000
SIMPATVE	QC	1475.47	97.58	1700.64	0.000
SIMPATVN	QC	1475.11	97.73	1700.64	0.000
SIMPATVS	QC	1475.04	97.77	1700.64	0.000
SIMPAVE2	QC	1475.76	97.46	1700.64	0.000
SIMPAVN	QC	1475.47	97.58	1700.64	0.000
SIMPAVN2	QC	0.00	736.99	1700.64	0.000
STA-ACA	QC	1695.00	34.06	1773.61	-175.000
STA-COM	QC	1522.00	87.46	1723.82	-20.000
STE-CAW	QC	1517.00	80.14	1701.93	-276.726
STE-WAR	QC	1500.00	84.35	1694.64	-432.437
T-A	QC	1545.00	59.12	1681.42	-22.682
T-N	QC	1535.00	65.79	1686.80	-22.682
TRESCERR	PC	1719.00	0.00	1699.00	0.000
U-A	QC	1546.00	58.11	1680.08	-22.682

TRESCERR	PC	1719.00	0.00	1699.00	0.000
U-A	QC	1546.00	58.11	1680.08	-22.682
U-V	QC	1548.00	57.03	1679.61	-22.682
U-W	QC	1552.00	55.30	1679.61	-22.682
U-X	QC	1556.00	53.58	1679.64	-22.682
U-Y	QC	1562.00	51.05	1679.81	-22.682
WELL23	QC	1580.00	75.30	1753.76	750.000
WELL25	QC	1593.00	58.68	1728.42	1900.000
WELL27	QC	1573.91	65.62	1725.34	0.000
WEN-SAN	QC	1524.00	78.93	1706.13	0.000
WES-COU	QC	1521.53	88.78	1726.39	-20.000
WHI-WAR	QC	1500.00	83.82	1693.42	-175.175
WHIT-CAW	QC	1514.50	81.51	1702.60	0.000
ZZ-AAA	QC	1585.00	41.37	1680.45	-22.682
ZZ-BBB	QC	1560.00	52.21	1680.47	-22.682
ZZ-CC	QC	1547.00	57.85	1680.50	-22.682
cut1	QC	1515.77	89.47	1722.23	-121.930
cut2	QC	1515.95	91.19	1726.38	-24.386
fru10	QC	1561.00	67.74	1717.32	0.000
fru11	QC	1544.00	76.55	1720.65	0.000
fru15	QC	1516.15	87.72	1718.57	0.000
fru16	QC	1518.68	87.26	1720.04	0.000
fru17	QC	1526.28	84.32	1720.85	0.000
fru18	QC	1540.00	78.57	1721.31	0.000
fru19	QC	1563.00	69.75	1723.94	0.000
fru2	QC	1512.00	89.07	1717.55	0.000
fru20	QC	1593.00	57.74	1726.23	0.000
fru21	QC	1577.00	64.45	1725.73	0.000
fru22	QC	1593.00	58.46	1727.89	0.000
fru23	QC	1587.29	74.10	1758.27	0.000
fru24	QC	1569.86	66.14	1722.49	0.000
fru3	QC	1513.49	88.87	1718.57	0.000
fru6	QC	1522.59	85.82	1720.62	0.000
fru7	QC	1528.00	83.49	1720.65	0.000
fru8	QC	1637.00	34.81	1717.32	0.000
fru9	QC	1540.00	78.21	1720.48	0.000

*** PIPE REPORT ***

FROM NODE	TO NODE	TYPE	FLOW, gpm	VEL, ft/sec	DH/1000	LENGTH, ft	DIA, in	FRICITION
41150P1q	4122102q	HW	0.00	0.00	0.000	3220.0	51.00	125.0000
4122102q	4122101q	HW	317.29	0.05	0.000	3380.0	51.00	125.0000
4122101q	4127105q	HW	-588.15	-0.54	-0.078	1440.0	21.00	115.0000
4127105q	41260M1q	HW	0.00	0.00	0.000	5140.0	21.00	115.0000
4122101q	4121102q	HW	584.71	0.10	0.001	1520.0	48.00	130.0000
4121102q	4121105q	HW	5.08	0.01	0.000	4890.0	12.00	115.0000
4121104q	4127101q	HW	-5.08	-0.01	-0.000	3560.0	12.00	115.0000
4127101q	4127103q	HW	-9.31	-0.95	-2.913	1270.0	2.00	125.0000
4121102q	4127103q	HW	543.24	0.10	0.001	1520.0	48.00	125.0000
4127104q	4128101q	HW	396.23	1.12	0.573	2640.0	12.00	115.0000
4128101q	4129104q	HW	319.77	0.91	0.385	5280.0	12.00	115.0000
4129104q	1497	HW	121.93	0.35	0.065	4270.0	12.00	115.0000
4129104q	4130101q	HW	152.60	0.43	0.098	8080.0	12.00	115.0000
4130101q	4130102q	HW	5.92	0.02	0.000	5550.0	12.00	115.0000
4130102q	4119101q	HW	1.69	0.00	0.000	2480.0	16.00	115.0000
4130101q	4131103q	HW	142.45	0.40	0.086	1310.0	12.00	115.0000
4131103q	4131101q	HW	125.52	1.42	2.584	3960.0	6.00	100.0000
4131101q	5201101q	HW	213.65	0.61	0.183	2600.0	12.00	115.0000
5201101q	DEV-LAS	HW	207.72	1.33	1.356	9200.0	8.00	110.0000
DEV-LAS	DEV-WAR	HW	-640.59	-1.82	-1.395	2880.0	12.00	115.0000
DEV-LAS	DEV-CAL	HW	575.66	1.63	1.145	1360.0	12.00	115.0000
H74-CAL	H74-A	HW	639.62	1.81	1.391	3340.0	12.00	115.0000
H74-A	HOMEPS	HW	1200.00	3.40	4.461	4690.0	12.00	115.0000

H74-CAL	H74-A	HW	639.62	1.81	1.391	3340.0	12.00	115.0000
H74-A	HOMEPS	HW	1200.00	3.40	4.461	4690.0	12.00	115.0000
HOMEPS	5215P71q	HW	0.00	0.00	0.000	2200.0	8.00	110.0000
H74-CAL	HWY-CALS	HW	-530.43	-1.50	-0.984	1140.0	12.00	115.0000
WNI-WAR	H74-WAR	HW	179.67	0.51	0.132	2720.0	12.00	115.0000
HWY-CALS	H74-WAR	HW	-726.84	-2.06	-1.763	4140.0	12.00	115.0000
DEV-CAW	5108102q	HW	38.93	0.11	0.008	2230.0	12.00	115.0000
DEV-CAW	DEV-SAN	HW	-636.62	-1.81	-1.379	2640.0	12.00	115.0000
5108102q	5108106q	HW	0.00	0.00	0.000	2400.0	12.00	115.0000
581118	4132102q	HW	-251.25	-1.60	-1.929	3930.0	8.00	110.0000
4134102q	4134103q	HW	-727.88	-0.92	-0.166	2720.0	18.00	142.0000
4135101q	5102101q	HW	651.23	1.36	0.679	2360.0	14.00	115.0000
5103104q	5102104q	HW	-284.80	-0.81	-0.311	1450.0	12.00	115.0000
5102101q	5102104q	HW	382.96	1.09	0.538	3960.0	12.00	115.0000
4134102q	5103101q	HW	115.62	0.33	0.059	3900.0	12.00	115.0000
5103101q	5103103q	HW	177.44	0.50	0.129	2720.0	12.00	115.0000
5102103q	5102102q	HW	-11885.00	-5.39	-3.320	2250.0	30.00	120.0000
5102102q	STA-ACA	HW	175.00	0.08	0.001	8330.0	30.00	120.0000
5102102q	5101101q	HW	-12060.00	-5.47	-3.412	12040.0	30.00	120.0000
5101101q	50060PWq	HW	-13640.00	-6.19	-4.285	100.0	30.00	120.0000
5110101q	ACA-SAN	HW	7247.87	3.29	1.329	7960.0	30.00	120.0000
ACA-SAN	WEN-SAN	HW	-67.10	-0.19	-0.021	2940.0	12.00	115.0000
ACA-SAN	ACA-CAW	HW	6368.19	2.89	1.046	2680.0	30.00	120.0000
STE-WAR	5118103q	HW	-787.28	-2.23	-2.044	3320.0	12.00	115.0000
5118103q	STE-CAW	HW	-269.92	-0.77	-0.282	1800.0	12.00	115.0000
5120102q	5119101q	HW	536.10	0.68	0.139	5280.0	18.00	115.0000
5120102q	5129101q	HW	474.98	0.60	0.111	3700.0	18.00	115.0000
5129101q	5130T79q	HW	119.97	0.09	0.002	1200.0	24.00	120.0000
5129101q	5130101q	HW	340.62	0.43	0.060	5280.0	18.00	115.0000
5130101q	5225101q	HW	266.57	0.19	0.009	5280.0	24.00	120.0000
5225101q	R9	HW	0.00	0.00	0.000	7880.0	24.00	120.0000
5119101q	5130101q	HW	-48.66	-0.06	-0.002	3700.0	18.00	115.0000
R9	R10	HW	0.00	0.00	0.000	7840.0	24.00	120.0000
5120101q	5116101q	HW	-80.69	-0.23	-0.030	6500.0	12.00	115.0000
5117102q	5120101q	HW	-80.69	-0.23	-0.030	4430.0	12.00	115.0000
WEN-SAN	5117102q	HW	-584.46	-1.66	-1.177	5000.0	12.00	115.0000
5117102q	5116101q	HW	-503.77	-0.64	-0.124	2650.0	18.00	115.0000
5116101q	5116102q	HW	-707.17	-0.89	-0.233	2640.0	18.00	115.0000
5116102q	5121101q	HW	245.42	0.70	0.236	2820.0	12.00	115.0000
5116102q	5115101q	HW	-1075.30	-1.36	-0.505	2640.0	18.00	115.0000
5110101q	5115101q	HW	4015.95	1.82	0.445	5280.0	30.00	120.0000
5115101q	5115102q	HW	2453.21	2.51	1.393	2640.0	20.00	115.0000
5127102q	5127101q	HW	782.79	0.73	0.132	2560.0	21.00	115.0000
5127102q	51270T7q	HW	1011.52	1.61	0.801	2300.0	16.00	115.0000
5127102q	5127P53q	HW	256.93	0.26	0.021	1840.0	20.00	115.0000
R10	FP4	HW	0.00	0.00	0.000	10.0	24.00	125.0000
4119101q	4119102q	HW	0.00	0.00	0.000	1100.0	12.00	115.0000
4119101q	4124101q	HW	0.00	0.00	0.000	100.0	8.00	110.0000
4131101q	fru2	HW	-105.05	-1.19	-1.858	5440.0	6.00	100.0000
fru2	4132102q	HW	-105.05	-0.67	-0.384	2650.0	8.00	110.0000
4129104q	fru3	HW	19.85	0.06	0.002	2640.0	12.00	115.0000
fru3	4132102q	HW	19.85	0.06	0.002	2640.0	12.00	115.0000
5103102q	fru9	HW	136.70	0.87	0.625	2640.0	8.00	110.0000
fru9	fru8	HW	194.01	1.24	1.195	2640.0	8.00	110.0000
581118	fru10	HW	-510.54	-2.09	-2.418	2620.0	10.00	110.0000
fru11	5103103q	HW	-214.41	-0.88	-0.485	2640.0	10.00	110.0000
fru10	fru11	HW	-375.46	-1.53	-1.261	2640.0	10.00	115.0000
4128101q	fru6	HW	-7.32	-0.05	-0.003	2640.0	8.00	110.0000
fru6	fru7	HW	-16.06	-0.10	-0.012	2640.0	8.00	110.0000
fru11	fru9	HW	57.31	0.37	0.125	1354.0	8.00	110.0000
fru3	fru15	HW	0.00	0.00	0.000	1600.0	8.00	110.0000
fru16	fru6	HW	-77.76	-0.50	-0.220	2640.0	8.00	110.0000
fru6	fru17	HW	-69.03	-0.44	-0.176	1320.0	8.00	110.0000
fru7	fru18	HW	-788.80	-1.26	-0.505	1320.0	16.00	115.0000
fru17	fru18	HW	-69.03	-0.44	-0.176	2640.0	8.00	110.0000
4134103q	fru19	HW	-1003.35	-1.27	-0.483	2041.3	18.00	110.0000
fru21	4135101q	HW	-299.82	-1.22	-0.902	1184.0	10.00	110.0000
fru21	fru20	HW	-703.53	-0.89	-0.230	2150.0	18.00	115.0000
fru20	fru22	HW	-703.53	-2.00	-1.660	1000.0	12.00	115.0000

fru21	fru20	HW	-703.53	-0.89	-0.230	2150.0	18.00	115.0000
fru20	fru22	HW	-703.53	-2.00	-1.660	1000.0	12.00	115.0000
4135101q	WELL25	HW	-1196.47	-1.91	-1.010	1600.0	16.00	120.0000
5103104q	fru24	HW	175.22	0.50	0.126	1033.5	12.00	115.0000
fru24	5103101q	HW	175.22	0.50	0.126	1646.5	12.00	115.0000
5102103q	fru23	HW	11752.14	5.33	3.252	2420.9	30.00	120.0000
fru23	WELL23	HW	11752.14	5.33	3.252	1389.1	30.00	120.0000
5102104q	FRU25	HW	0.00	0.00	0.000	483.1	8.00	110.0000
4127105q	FRU22	HW	-588.15	-1.67	-1.191	466.6	12.00	115.0000
FRU22	QUANT	HW	-215.20	-1.37	-1.448	1520.0	8.00	110.0000
FRU27	4134102q	HW	-498.87	-0.63	-0.122	1020.0	18.00	115.0000
4127102q	4127104q	HW	0.00	0.00	0.000	1200.0	6.00	100.0000
fru18	4134101q	HW	-857.83	-1.37	-0.590	1320.0	16.00	115.0000
4134101q	FRU27	HW	-498.87	-1.04	-0.414	700.0	14.00	115.0000
4134101q	FRU21	HW	-99.79	-0.28	-0.045	2081.0	12.00	115.0000
fru7	FRU28	HW	86.69	0.55	0.269	0.7	8.00	110.0000
FRU28	fru11	HW	218.36	1.39	1.487	0.3	8.00	110.0000
4132102q	FRU29	HW	-636.86	-1.02	-0.340	2640.0	16.00	115.0000
FRU29	fru7	HW	-686.06	-1.09	-0.390	3043.4	16.00	115.0000
fru16	FRU29	HW	77.76	0.50	0.220	2620.0	8.00	110.0000
FRU29	fru10	HW	126.96	0.81	0.545	3930.0	8.00	110.0000
fru10	fru8	HW	-8.11	-0.05	-0.003	1320.0	8.00	110.0000
581118	DEV-SAN	HW	639.85	1.82	1.392	3960.0	12.00	115.0000
FRU28	FRU21	HW	-131.67	-0.84	-0.583	2640.0	8.00	110.0000
DEV-SAN	FRU30	HW	-185.90	-0.53	-0.141	2640.0	12.00	115.0000
FRU31	5110101q	HW	11263.82	3.55	1.237	4341.7	36.00	120.0000
FRU20	4134101q	HW	607.83	1.72	1.266	221.6	12.00	115.0000
5103103q	FRU14	HW	-118.51	-0.76	-0.480	916.5	8.00	110.0000
FRU14	5103102q	HW	136.70	0.87	0.625	383.5	8.00	110.0000
WEN-SAN	5118103q	HW	517.36	1.47	0.939	5014.8	12.00	115.0000
4102101q	CAL-END	HW	97.54	0.40	0.104	2300.0	10.00	115.0000
WHI-WAR	STE-WAR	HW	-354.84	-1.01	-0.467	2600.0	12.00	115.0000
FRU1	ACA-SAN	HW	-760.61	-2.16	-1.917	50.0	12.00	115.0000
DEV-SAN	FRU6	HW	2.95	0.01	0.000	1320.0	12.00	115.0000
FRU6	FRU1	HW	-317.79	-0.90	-0.381	1320.0	12.00	115.0000
FRU4	FRU2	HW	-763.56	-2.17	-1.931	600.0	12.00	115.0000
FRU2	FRU1	HW	-442.81	-1.26	-0.704	2200.0	12.00	115.0000
FRU6	FRU2	HW	320.75	0.91	0.388	2700.0	12.00	115.0000
FRU30	fru8	HW	-185.90	-2.11	-5.347	2147.0	6.00	100.0000
FRU4	4108PRD	HW	-26.49	-0.08	-0.004	126.3	12.00	115.0000
4108PRS	ACA-CAW	HW	-26.49	-0.08	-0.004	232.1	12.00	115.0000
4134103q	5103104q	HW	51.21	0.33	0.101	3362.0	8.00	110.0000
fru19	WELL27	HW	-1003.35	-1.27	-0.483	2890.1	18.00	110.0000
WELL27	fru21	HW	-1003.35	-1.27	-0.483	817.3	18.00	110.0000
FRU25	4102VLD	HW	0.00	0.00	0.000	1242.3	12.00	115.0000
4102VLS	5102103q	HW	0.00	0.00	0.000	192.4	12.00	115.0000
fru24	4103VLD	HW	0.00	0.00	-0.000	1285.9	8.00	110.0000
4103VLS	fru23	HW	0.00	0.00	0.000	27.5	8.00	110.0000
FRU17	4103101q	HW	-1238.32	-0.25	-0.006	264.4	45.00	125.0000
4103101q	FRU31	HW	11263.82	2.27	0.387	1017.7	45.00	125.0000
WELL23	4103VPS	HW	12502.14	5.67	3.647	3240.0	30.00	120.0000
4122102q	cut1	HW	121.93	0.35	0.065	2639.2	12.00	115.0000
H74-WAR	FLO-WAR	HW	-790.05	-2.24	-2.057	1019.6	12.00	115.0000
FLO-WAR	FRU4	HW	-790.05	-2.24	-2.057	3940.8	12.00	115.0000
FRU26	FRU18	HW	-515.83	-0.10	-0.001	3036.6	45.00	125.0000
FRU21	FRU19	HW	-231.47	-0.66	-0.212	354.9	12.00	115.0000
FRU19	5103103q	HW	235.81	0.67	0.219	1524.1	12.00	115.0000
FRU23	FRU24	HW	533.93	0.11	0.001	638.8	45.00	125.0000
FRU24	FRU26	HW	189.63	0.04	0.000	5134.1	45.00	125.0000
4127104q	FRU32	HW	-441.93	-1.25	-0.702	53.7	12.00	115.0000
FRU32	FRU20	HW	-97.63	-0.28	-0.043	5004.7	12.00	115.0000
HWY-CALS	CAL-STET	HW	121.93	0.35	0.065	6280.0	12.00	115.0000
ACA-CAW	WHIT-CAW	HW	1647.43	1.17	0.253	2641.1	24.00	120.0000
WHIT-CAW	STE-CAW	HW	1647.43	1.17	0.253	2638.9	24.00	120.0000
WHI-WAR	WHIT-CAW	HW	0.00	0.00	-1.765	5200.2	0.03	120.0000
DEV-WAR	DEV-OWAR	HW	-369.99	-1.05	-0.505	1048.8	12.00	115.0000
DEV-OWAR	DEV-CAW	HW	-379.08	-1.08	-0.528	5291.2	12.00	115.0000
DEV-OWAR	5212TTCq	HW	621.66	0.20	0.006	5900.0	36.00	120.0000
4127103q	MANNY	HW	533.93	0.09	0.001	1181.0	48.00	125.0000

DEV-OWAR	5212TTCq	HW	621.66	0.20	0.006	5900.0	36.00	120.0000
4127103q	MANNY	HW	533.93	0.09	0.001	1181.0	48.00	125.0000
MANNY	FRU23	HW	533.93	0.09	0.001	1107.2	48.00	125.0000
FRU18	MOE	HW	-983.10	-0.20	-0.004	1511.8	45.00	125.0000
MOE	FRU17	HW	-983.10	-0.20	-0.004	512.8	45.00	125.0000
STE-CAW	JACK	HW	1100.79	0.78	0.120	3626.9	24.00	120.0000
JACK	5120102q	HW	1100.79	0.78	0.120	633.1	24.00	120.0000
5115102q	DICK	HW	2088.47	2.13	0.956	7426.2	20.00	120.0000
DICK	5127102q	HW	2088.47	2.13	0.956	573.8	20.00	120.0000
WELL25	fru22	HW	703.53	0.89	0.230	2300.0	18.00	115.0000
5227101q	SIMPATVE	HW	0.00	0.00	0.000	30.0	24.00	120.0000
SIMPAVN	SIMPAVN2	HW	0.00	0.00	0.000	30.0	24.00	120.0000
FRU22	STA-COM	HW	-397.34	-1.13	-0.532	1400.0	12.00	120.0000
STA-COM	4122102q	HW	561.15	1.59	1.009	1400.0	12.00	120.0000
EAG-COM	EAG-COU	HW	-359.85	-1.02	-0.443	1000.0	12.00	120.0000
QUANT	EAG-COU	HW	-337.13	-2.15	-2.830	400.0	8.00	120.0000
STA-COM	GOL-COM	HW	-978.48	-2.78	-2.825	698.6	12.00	120.0000
GOL-COM	EAG-COM	HW	-259.85	-0.74	-0.243	701.4	12.00	120.0000
GOL-COM	GOL-COU	HW	-738.63	-2.10	-1.679	1000.0	12.00	120.0000
GOL-COU	EAG-COU	HW	761.37	2.16	1.775	600.0	12.00	120.0000
cut2	WES-COU	HW	-24.39	-0.07	-0.003	2000.0	12.00	115.0000
EAG-COU	WES-COU	HW	44.39	0.13	0.009	1750.0	12.00	120.0000
DEV-WAR	DEV-LAS	HW	3465.25	2.46	1.005	4000.0	24.00	120.0000
DEV-LAS	DEV-CAL	HW	3718.44	2.64	1.145	1360.0	24.00	120.0000
DEV-OWAR	DEV-WAR	HW	3795.94	1.72	0.401	1320.0	30.00	120.0000
B-A	U-A	HW	910.69	2.58	2.474	200.0	12.00	120.0000
U-A	U-V	HW	888.01	2.52	2.361	200.0	12.00	120.0000
U-V	U-W	HW	71.33	0.20	0.022	275.0	12.00	120.0000
U-W	U-X	HW	-185.31	-0.53	-0.130	250.0	12.00	120.0000
U-X	U-Y	HW	-450.85	-1.28	-0.673	250.0	12.00	120.0000
U-Y	5211102q	HW	-752.09	-2.13	-1.736	850.0	12.00	120.0000
GG-A	GG-V	HW	200.13	0.57	0.150	150.0	12.00	120.0000
GG-V	U-V	HW	-794.00	-2.25	-1.919	800.0	12.00	120.0000
GG-V	GG-W	HW	-319.45	-2.04	-2.561	260.0	8.00	120.0000
GG-W	U-W	HW	-233.95	-1.49	-1.439	600.0	8.00	120.0000
GG-W	GG-X	HW	-108.18	-0.69	-0.345	250.0	8.00	120.0000
GG-X	U-X	HW	-242.86	-1.55	-1.542	525.0	8.00	120.0000
GG-Y	U-Y	HW	-278.56	-1.78	-1.987	500.0	8.00	120.0000
GG-V	BB-CC	HW	1290.90	3.66	4.720	230.0	12.00	120.0000
BB-CC	CC-FF	HW	1545.36	4.38	6.586	2050.0	12.00	120.0000
BB-CC	BB-Z	HW	-277.14	-1.77	-1.969	600.0	8.00	120.0000
BB-Z	BB-Y	HW	-111.53	-0.71	-0.365	250.0	8.00	120.0000
BB-Y	GG-Y	HW	-156.89	-1.00	-0.686	800.0	8.00	120.0000
GG-X	GG-Z	HW	111.99	0.71	0.368	215.0	8.00	120.0000
GG-Z	GG-Y	HW	-98.99	-0.63	-0.293	215.0	8.00	120.0000
BB-Z	GG-Z	HW	-188.30	-1.20	-0.962	600.0	8.00	120.0000
BB-Y	BB-HP	HW	22.68	0.14	0.019	250.0	8.00	120.0000
CC-FF	FF-HP	HW	1522.68	9.72	46.171	650.0	8.00	120.0000
GG-A	GG-JJ	HW	-222.82	-0.63	-0.182	330.0	12.00	120.0000
GG-JJ	LL-JJ	HW	-178.81	-1.14	-0.874	370.0	8.00	120.0000
LL-JJ	LL-RR	HW	-201.49	-1.29	-1.091	350.0	8.00	120.0000
LL-RR	RR-EASE	HW	-404.27	-2.58	-3.961	2000.0	8.00	120.0000
DEV-CAL	EASE-CAL	HW	547.18	3.49	8.151	700.0	8.00	110.0000
EASE-CAL	4102101q	HW	97.54	0.62	0.334	5260.0	8.00	110.0000
RR-EASE	EASE-CAL	HW	-426.95	-2.73	-4.382	100.0	8.00	120.0000
KK-END	II-JJ	HW	-22.68	-0.14	-0.019	600.0	8.00	120.0000
II-JJ	NN-JJ	HW	15.51	0.10	0.009	250.0	8.00	120.0000
NN-JJ	GG-JJ	HW	66.69	0.43	0.141	350.0	8.00	120.0000
OO-RR	II-JJ	HW	34.61	0.22	0.042	750.0	8.00	120.0000
LL-RR	NN-RR	HW	180.10	1.15	0.886	630.0	8.00	120.0000
NN-RR	OO-RR	HW	83.55	0.53	0.214	300.0	8.00	120.0000
NN-RR	NN-JJ	HW	73.86	0.47	0.170	575.0	8.00	120.0000
OO-RR	II-JJ	HW	26.26	0.17	0.025	1250.0	8.00	120.0000
T-A	T-A	HW	-2425.36	-3.87	-3.738	225.0	16.00	120.0000
J-A	T-N	HW	-3126.50	-4.99	-5.982	900.0	16.00	120.0000
DEV-CAL	B-N	HW	3171.86	5.06	6.144	800.0	16.00	120.0000
B-N	T-N	HW	3149.18	5.03	6.063	200.0	16.00	120.0000
T-A	J-A	HW	678.45	1.08	0.353	310.0	16.00	120.0000
J-A	K-A	HW	565.08	0.90	0.252	290.0	16.00	120.0000

T-A	J-A	HW	678.45	1.08	0.353	310.0	16.00	120.0000
J-A	K-A	HW	565.08	0.90	0.252	290.0	16.00	120.0000
K-A	Q-A	HW	480.47	0.77	0.186	150.0	16.00	120.0000
Q-A	M-A	HW	417.16	0.67	0.144	380.0	16.00	120.0000
M-A	A-K	HW	394.48	0.63	0.129	100.0	16.00	120.0000
A-K	A-J	HW	451.67	1.28	0.675	320.0	12.00	120.0000
A-J	C-A	HW	497.00	1.41	0.806	480.0	12.00	120.0000
C-A	DDD-A	HW	292.87	0.83	0.303	430.0	12.00	120.0000
DDD-A	H74-A	HW	568.84	1.61	1.035	400.0	12.00	120.0000
DDD-A	DDD-EEE	HW	-298.66	-1.91	-2.261	170.0	8.00	120.0000
DDD-EEE	CCC-DDD	HW	-160.67	-1.03	-0.717	1530.0	8.00	120.0000
CCC-DDD	DDD-EEE	HW	160.67	1.03	0.717	1530.0	8.00	120.0000
CCC-DDD	CCC-MMM	HW	-344.02	-2.20	-2.938	280.0	8.00	120.0000
CCC-MMM	MMM-NNN	HW	-167.79	-1.07	-0.777	260.0	8.00	120.0000
DEV-CAL	CCC-CAL	HW	552.39	3.53	8.296	900.0	8.00	110.0000
CCC-CAL	H74-CAL	HW	117.64	0.75	0.473	1740.0	8.00	110.0000
CCC-CAL	CCC-NNN	HW	412.07	2.63	4.104	250.0	8.00	120.0000
CCC-NNN	CCC-MMM	HW	198.92	1.27	1.065	1620.0	8.00	120.0000
CCC-NNN	MMM-NNN	HW	190.47	1.22	0.983	1550.0	8.00	120.0000
J-A	J-HP	HW	90.69	0.58	0.249	900.0	8.00	120.0000
J-HP	A-J	HW	68.01	0.43	0.146	1100.0	8.00	120.0000
K-A	K-HP	HW	61.93	0.40	0.123	550.0	8.00	120.0000
K-HP	A-K	HW	39.24	0.25	0.053	530.0	8.00	120.0000
Q-A	A-K	HW	40.63	0.26	0.056	1200.0	8.00	120.0000
C-A	ZZ-CC	HW	181.44	0.51	0.125	300.0	12.00	120.0000
ZZ-CC	D-C	HW	108.34	0.31	0.048	350.0	12.00	120.0000
D-C	C-HP	HW	22.68	0.14	0.019	470.0	8.00	120.0000
D-C	D-E	HW	62.98	0.18	0.018	520.0	12.00	120.0000
ZZ-CC	ZZ-BBB	HW	50.42	0.32	0.084	320.0	8.00	120.0000
ZZ-BBB	ZZ-AAA	HW	27.74	0.18	0.028	725.0	8.00	120.0000
ZZ-AAA	AAA-HP	HW	22.68	0.14	0.019	250.0	8.00	120.0000
D-E	E-D	HW	8.93	0.06	0.003	1420.0	8.00	120.0000
D-E	E-D	HW	31.36	0.09	0.005	1000.0	12.00	120.0000
ZZ-AAA	E-D	HW	-17.63	-0.11	-0.012	1350.0	8.00	120.0000
5211T37q	5211102q	HW	752.09	4.80	13.530	1600.0	8.00	115.0000
DEV-OWAR	DEV-CAW	HW	-4408.52	-2.00	-0.529	5280.0	30.00	120.0000
DEV-CAW	ACA-CAW	HW	-4476.78	-2.03	-0.544	2640.0	30.00	120.0000
FP4	SIMPAVE2	HW	0.00	0.00	0.000	9269.8	24.00	120.0000

*** P U M P P E R F O R M A N C E ***

PUMP ELEMENT	TYPE	SPEED rpm	HEAD ft	FLOW gpm	NPSHR ft	NPSHA ft	DEFICIT ft
QUANDT	GOL-COU	PE	0.0	0.00	0.00	0.00	0.00

*** P U M P E N E R G Y U S E ***

PUMP ELEMENT	EFFICIENCY	POWER hp	COST-RATE \$/hour	ENERGY kw-hr	COST Dollars
QUANDT	GOL-COU	0.00	0.00	0.00	0.00

*** T A N K S T A T U S ***

FROM NODE	TO NODE	HGL. ft	LEVEL. ft	VOLUME. MG	VOL CHANGE. MG	FLOW. gpm	TAU
-----------	---------	---------	-----------	------------	----------------	-----------	-----

FROM NODE	TO NODE	HGL, ft	LEVEL, ft	VOLUME, MG	VOL CHANGE, MG	FLOW, gpm	TAU
5130T79q	CAWSTON	1701.000	20.00	0.042857	0.000000	119.9740	1.000
51270T7q	DIAMOND	1701.000	16.00	0.043750	0.000000	1011.519	1.000
5211T37q	FRUITVAI	1703.000	16.00	0.043750	0.000000	-752.091	1.000
5212TTCq	TRESCERR	1699.000	20.00	3.800000	0.000000	621.6590	1.000

*** VALVE REPORT ***

FROM NODE	TO NODE	TYPE	FLOW gpm	HEAD DROP ft	TAU	KO	DIA in
FRU20	FRU26	VL	-416.34	-0.02	1.000	1.0000	12.00
FRU14	FRU17	VL	-255.21	-0.04	1.000	1.0000	8.00
4108PRS	4108PRD	VL	26.49	0.00	1.000	1.0000	12.00
4102VLS	4102VLD	VL	0.00	43.08	0.000	1.0000	12.00
4103VLS	4103VLD	VL	0.00	35.79	0.000	1.0000	12.00
4103VPS	4103101q	VL	12502.14	19.53	1.000	1.0000	12.00
FRU18	FRU19	VL	467.28	0.14	1.000	1.0000	8.00
FRU20	FRU26	VL	-289.12	-0.02	1.000	1.0000	10.00
FRU32	FRU24	VL	-344.30	-0.24	1.000	1.0000	6.00
SIM-WIN	SIMBYPAS	VL	0.00	0.00	1.000	1.0000	24.00
SIMPATVS	SIM-WIN	VL	0.00	0.00	1.000	1.0000	42.00
SIM-WIN	5227101q	VL	0.00	0.00	1.000	1.0000	24.00
SIM-WIN	SIMPATVN	VL	0.00	0.00	1.000	1.0000	12.00
SIMPATVE	SIMPAVN	VL	0.00	0.00	1.000	1.0000	42.00
SIMPAVE2	SIMPATVE	VL	0.00	0.00	1.000	1.0000	24.00
SIMPAVN2	SIMBYPAS	VL	0.00	0.00	0.000	1.0000	24.00

HEARTLAND

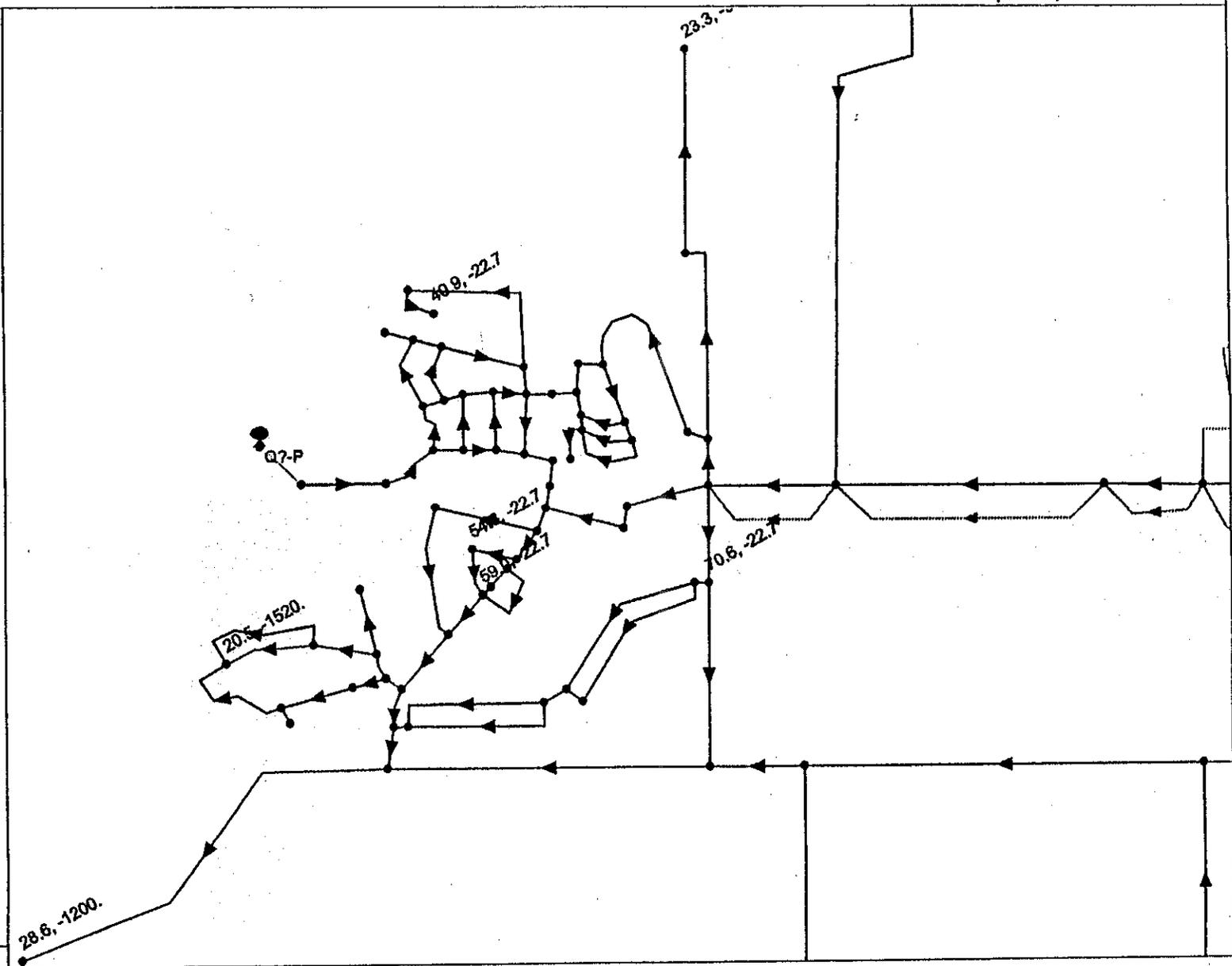
HEARTLAND ONLY SYSTEM W/ NO ADD. CAP.

2760 GPM MDD + 1500 GPM FF TO HEARTLAND PA 4

April 13, 1999 04:01 PM

Model Name: heartlan

INTERNAL DIAM (in)		
---RANGE---	COUNT	
BELOW 7.00	6	
7.00 9.00	77	
9.00 13.00	96	
13.00 17.00	18	
17.00 19.00	14	
ABOVE 19.00	49	
NON-PIPE	21	
MIN = 0.03000		
MAX = 51.00000		
ANNOTATION:		
NODE P	psig	
NODE Q	gpm	
NODE OFF		
ELEM OFF		
State: Balanced		
Corners: (FEET)		
UL: (1750650, 583005)		
LL: (1750650, 574504)		
UR: (1764238, 583005)		
LR: (1764238, 574504)		



HEARTLAND

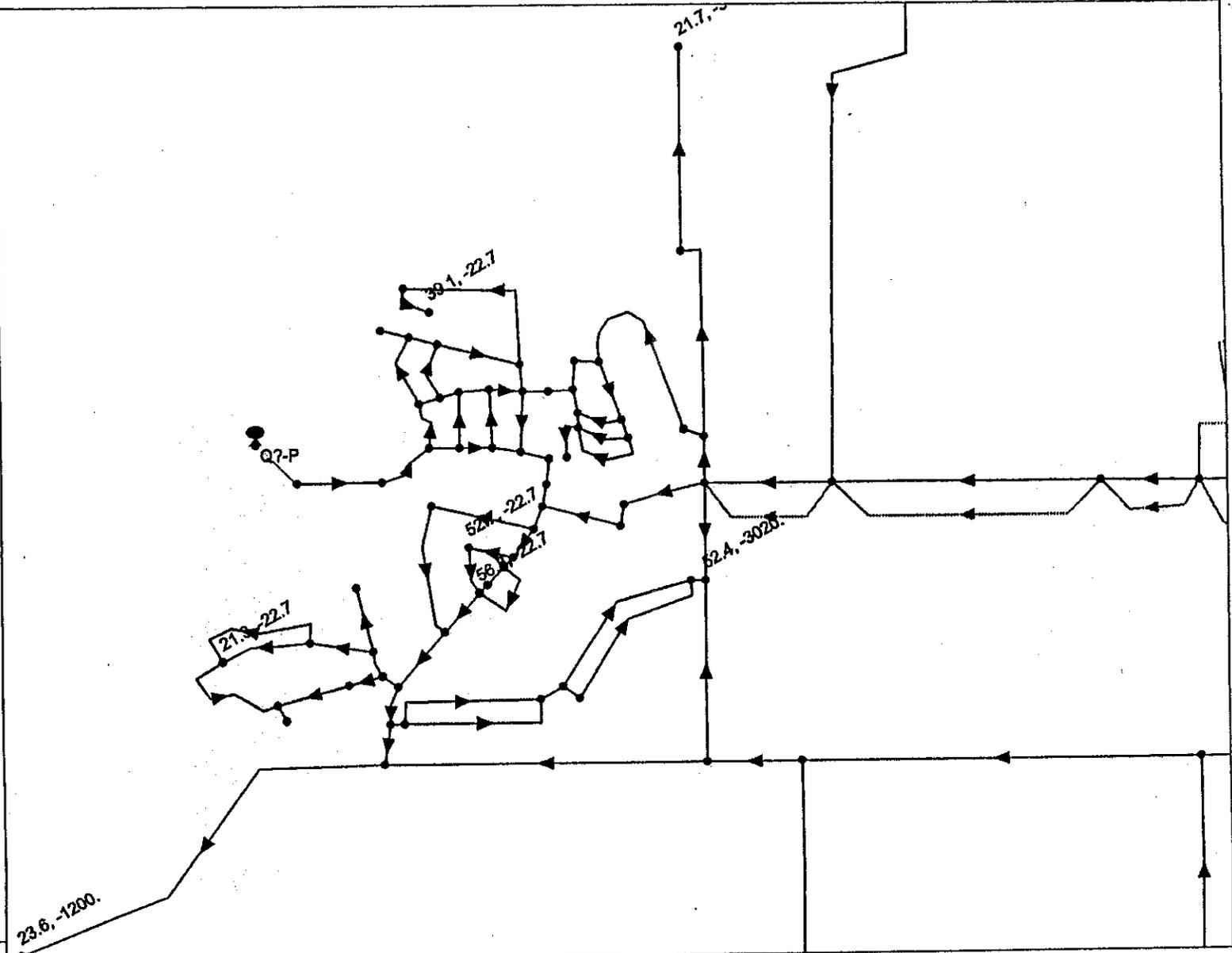
HEARTLAND ONLY SYSTEM W/ NO ADD. CAP.

2760 GPM MDD + 3000 GPM FF TO HEARTLAND CLUBHOUSE

April 13, 1999 04:03 PM

Model Name: heartlan

INTERNAL DIAM (in)		
---RANGE---	---	COUNT
BELOW 7.00		6
7.00 9.00		77
9.00 13.00		96
13.00 17.00		18
17.00 19.00		14
ABOVE 19.00		49
NON-PIPE		21
MIN = 0.03000		
MAX = 51.00000		
ANNOTATION:		
NODE P	psig	
NODE Q	gpm	
NODE OFF		
ELEM OFF		
State: Balanced		
Corners: (FEET)		
UL: (1750650, 583005)		
LL: (1750650, 574504)		
UR: (1764238, 583005)		
LR: (1764238, 574504)		



HEARTLAND

HEARTLAND ONLY SYSTEM W/ NO ADD. CAP.

2760 GPM MDD + 3000 GPM FF TO HEARTLAND PA 3A HIGH DENSITY

Model Name: heartlan

April 13, 1999 04:04 PM

INTERNAL DIAM (in)		
-----RANGE-----		COUNT
BELOW 7.00		6
7.00 9.00		77
9.00 13.00		96
13.00 17.00		18
17.00 19.00		14
ABOVE 19.00		49
NON-PIPE		21
MIN = 0.03000		
MAX = 51.00000		
ANNOTATION:		
NODE P	psig	
NODE Q	gpm	
NODE OFF		
ELEM OFF		

State: Balanced

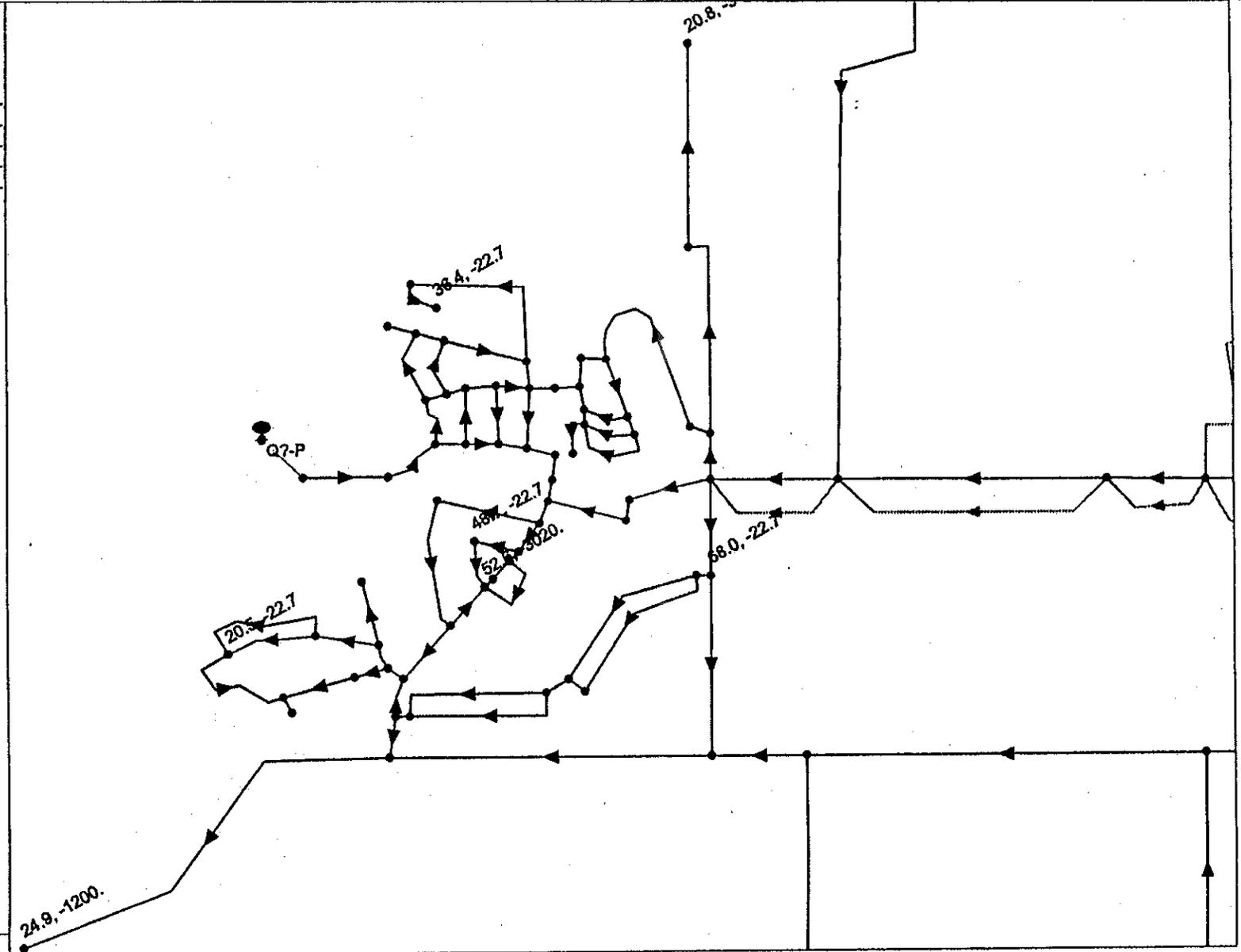
Corners: (FEET)

UL: (1750650, 583005)

LL: (1750650, 574504)

UR: (1764238, 583005)

LR: (1764238, 574504)



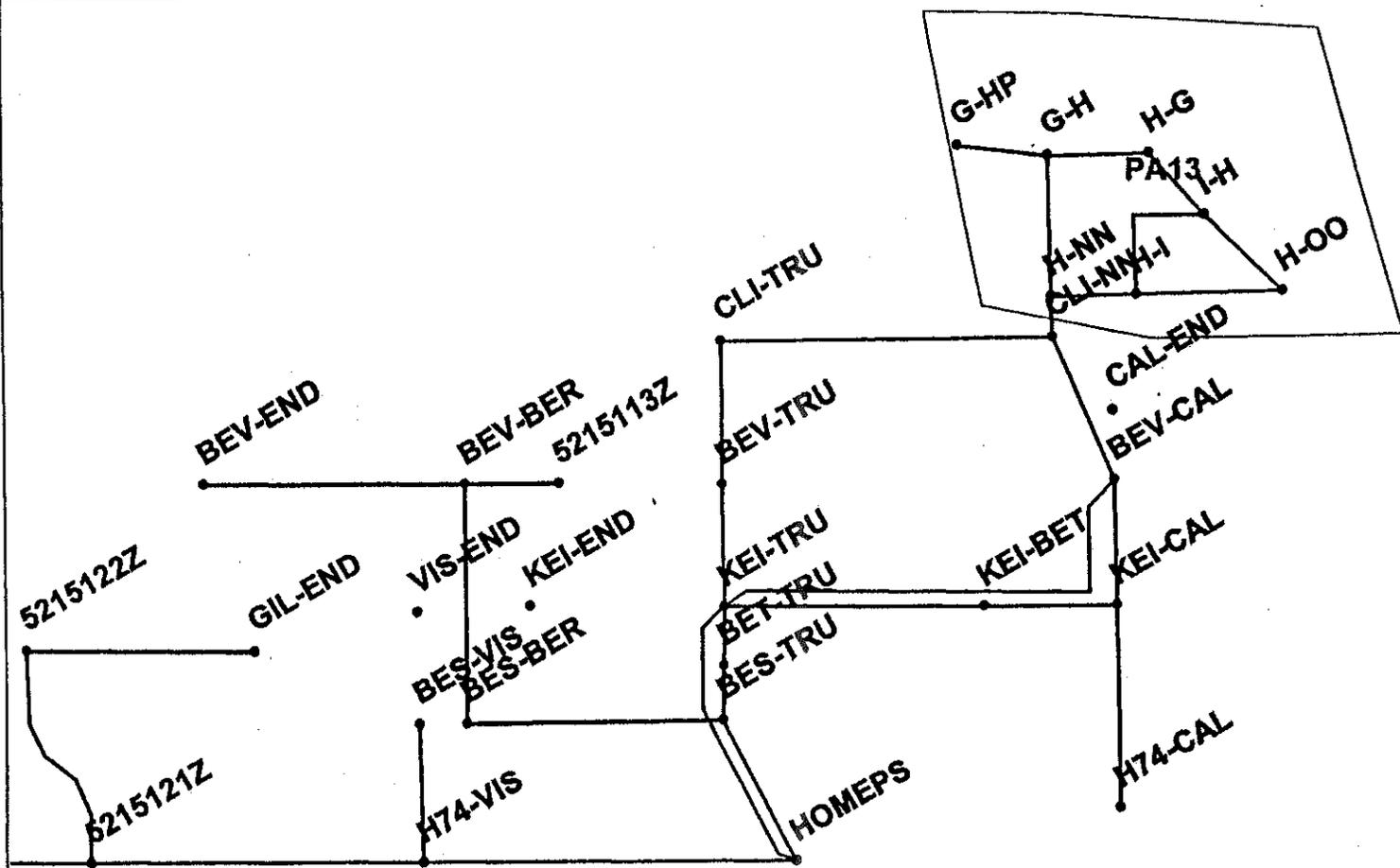


HEARTLAND PA13
1785 HOMELAND PZ
NODE NAMES

April 14, 1999 01:38 PM

Model Name: 1786HEAR

INTERNAL DIAH (in)		
----	RANGE	----- COUNT
<input type="checkbox"/>	BELOW 4.10	49
<input type="checkbox"/>	4.10 6.10	64
<input type="checkbox"/>	6.10 8.10	75
<input type="checkbox"/>	8.10 12.10	35
<input type="checkbox"/>	ABOVE 12.10	13
<input type="checkbox"/>	NON-PIPE	11
MIN = 0.00800		
MAX = 18.00000		
ANNOTATION:		
NODE NAME		
NODE OFF		
NODE OFF		
ELEM OFF		
State: Balanced		
Corners: (FEET)		
UL: (426,787)		
LL: (426,106)		
UR: (1514,787)		
LR: (1514,106)		



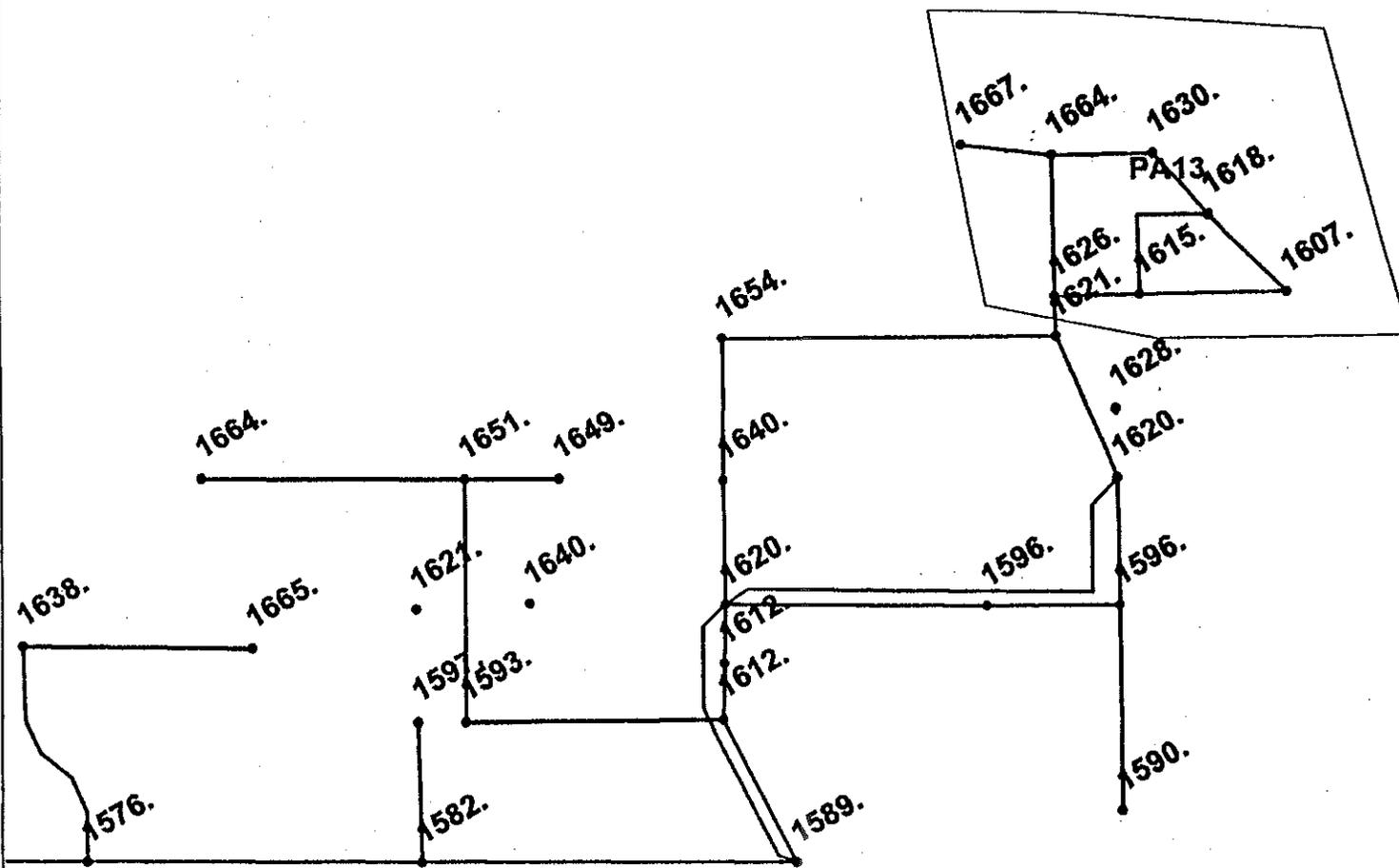
NODE NAMES

HEARTLAND PA13 1785 HOMELAND PZ NODE ELEVATIONS

Model Name: 1786HEAR

April 14, 1999 01:37 PM

INTERNAL DIAM (in)		
----	RANGE-----	COUNT
<input type="checkbox"/>	BELOW 4.10	49
<input type="checkbox"/>	4.10 6.10	64
<input type="checkbox"/>	6.10 8.10	75
<input type="checkbox"/>	8.10 12.10	35
<input type="checkbox"/>	ABOVE 12.10	13
<input type="checkbox"/>	NON-PIPE	11
MIN = 0.00800		
MAX = 18.00000		
ANNOTATION:		
	NODE ELEV	ft
	NODE OFF	
	NODE OFF	
	ELEM OFF	
State: Balanced		
Corners: (FEET)		
UL: (426, 787)		
LL: (426, 106)		
UR: (1514, 787)		
LR: (1514, 106)		



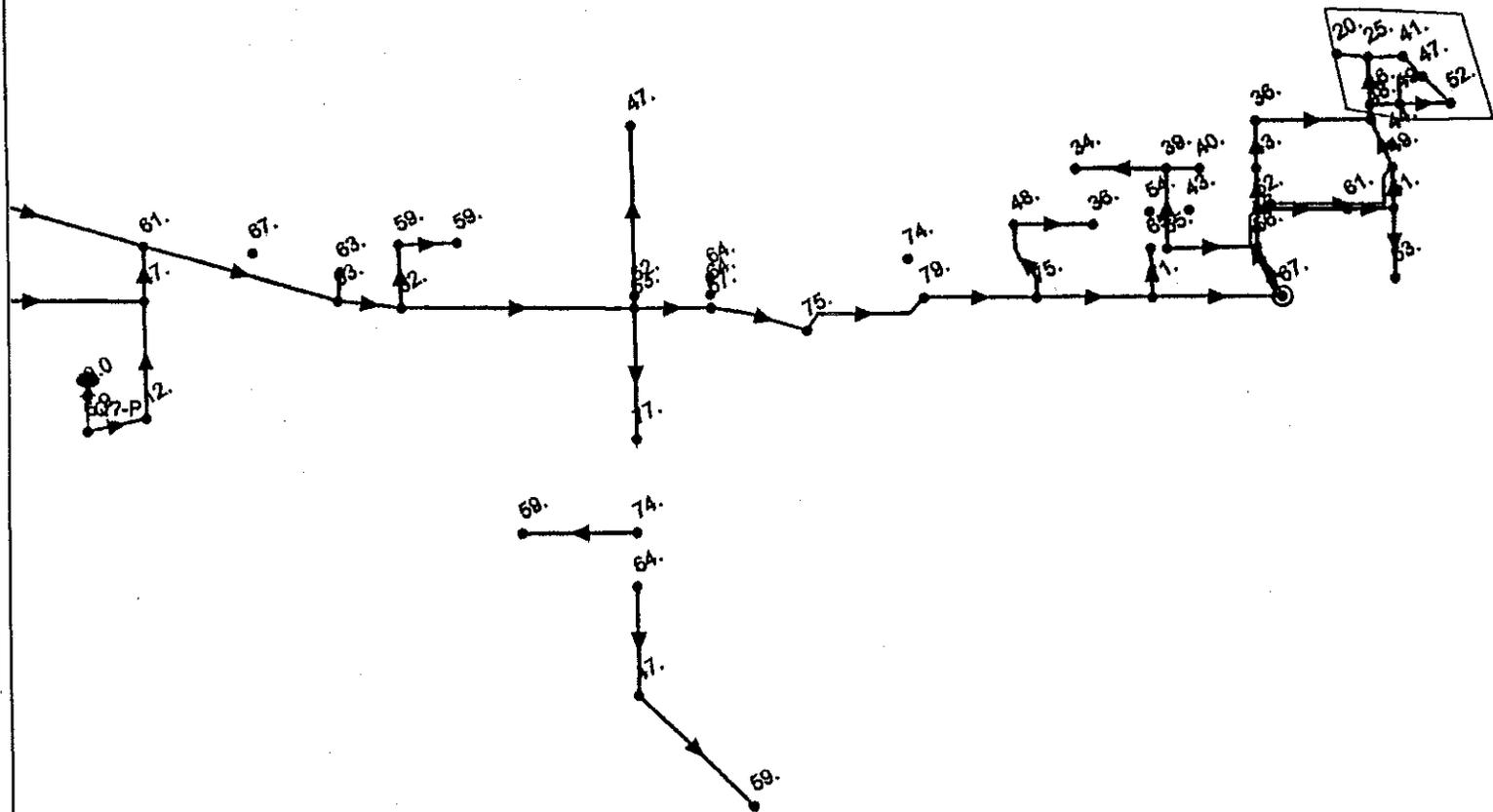
NODE ELEVATIONS

HEARTLAND PA13
PROP. 12" IN TRUELSON, NEW TANK ON, FF=1500
HOMELAND PS ON @ 700 GPM W/ GENERATOR, HIGH PAD ELEV. =1667'

Model Name: 1786HEAR

April 14, 1999 11:35 AM

INTERNAL DIAM (in)		
-----RANGE-----	COUNT	
BELOW 4.10	49	
4.10 6.10	64	
6.10 8.10	75	
8.10 12.10	35	
ABOVE 12.10	13	
NON-PIPE	11	
MIN = 0.00800		
MAX = 18.00000		
ANNOTATION:		
NODE P	psig	
NODE OFF		
NODE OFF		
ELEM OFF		
State: Balanced		
Corners: (FEET)		
UL: (-1708,1096)		
LL: (-1708,-818)		
UR: (1351,1096)		
LR: (1351,-818)		



SCENARIO 1, PLOT A

HEARTLAND PA13

SCENARIO 1 - PROPOSED SYSTEM @ MDD + FF=1500 GPM

1786HEAR

April 14, 1999 at 11:54 AM

SynerGEE Water
Stoner Associates, Inc.
1170 Harrisburg Pike
Carlisle, PA 17013

*** TRACE NOT ON FOR THIS TIMESTEP ***

*** TIME= 0.000 hours TIME STEP= 0 6 ITERATIONS

*** N O D E R E P O R T ***

NODE	TYPE	ELEVATION ft	PRESSURE psig	HGL ft	NODE FLOW gpm
5206101Z	QC	1643.00	64.72	1792.34	-9.510
5206102Z	QC	1665.00	55.18	1792.34	-9.510
5206103Z	QC	1670.00	53.02	1792.34	-8.930
5206104Z	QC	1609.00	79.64	1792.78	-12.450
5206105Z	QC	1716.00	33.70	1793.76	-12.450
5206105Z	QC	1719.00	32.56	1794.14	-9.510
5206106Z	QC	1702.00	39.93	1794.14	-7.750
5206107Z	QC	1779.00	6.89	1794.89	0.000
5206145Z	QC	1782.00	5.13	1793.83	-4.703
5207101Z	QC	1645.00	63.31	1791.10	-13.630
5207102Z	QC	1630.00	69.81	1791.10	-7.750
5207103	QC	1615.00	76.31	1791.09	-7.750
5207104Z	QC	1669.00	54.07	1793.77	-10.690
5207105Z	QC	1650.00	61.15	1791.10	-7.750
5207106Z	QC	1650.00	61.15	1791.10	-13.630
5207107Z	QC	1660.00	56.87	1791.24	-13.630
5207108Z	QC	1675.00	50.38	1791.26	-7.750
5207109Z	QC	1613.00	77.30	1791.38	-16.560
5207110Z	QC	1593.00	85.91	1791.24	-11.860
5207111Z	QC	1618.00	75.07	1791.23	-12.450
5207112Z	QC	1554.00	102.73	1791.06	-7.750
5207113Z	QC	1554.35	94.83	1773.17	0.000
5207114Z	QC	1554.00	102.73	1791.05	0.000
5207115Z	QC	1554.00	94.99	1773.18	0.000
5207116Z	QC	1554.00	102.72	1791.03	0.000
5207117Z	BC	1554.00	95.00	1773.22	0.000
5207118Z	QC	1554.00	94.99	1773.20	0.000
5207119Z	QC	1554.00	94.98	1773.17	-122.430
5207120Z	QC	1651.00	60.92	1791.58	-159.830
5207121Z	QC	1692.00	43.14	1791.55	-11.270
5207122Z	QC	1722.00	30.14	1791.55	-9.510
5207123Z	QC	1666.00	54.52	1791.80	-7.750
5207124Z	QC	1695.00	41.94	1791.78	-10.690
5207125Z	QC	1673.00	51.52	1791.89	-9.510
5207126Z	QC	1768.00	10.34	1791.86	-10.100
5207127Z	QC	1730.00	26.81	1791.86	-7.750
5207128Z	QC	1683.00	47.24	1792.02	-12.450
5207129Z	QC	1621.00	74.26	1792.36	-221.870
5208101Z	QC	1620.00	65.80	1771.84	-3.007
5208102Z	QC	1604.00	74.68	1776.33	0.000
5208103Z	QC	1653.00	51.57	1772.01	-350.000
5208104Z	QC	1604.00	74.67	1776.31	-11.428
5208105Z	QC	1653.00	51.58	1772.03	-4.115
5208106Z	QC	1653.00	51.58	1772.03	0.000
5208107Z	QC	1653.00	59.90	1791.23	0.000
5208108Z	QC	1653.00	51.58	1772.03	0.000
5208109Z	QC	1653.00	59.90	1791.23	0.000
5208110Z	QC	1653.00	59.90	1791.23	-10.040
5208111Z	QC	1606.42	73.70	1776.47	0.000
5208112Z	QC	1559.00	92.36	1772.12	-14.161
5208113Z	QC	1610.00	73.41	1779.40	-10.765
5208114Z	QC	1640.00	57.26	1772.14	-10.523
5208115Z	QC	1626.00	63.32	1772.12	-10.523
5208116Z	QC	1640.00	57.26	1772.12	-3.007

5208115Z	QC	1626.00	63.32	1772.12	-10.523
5208116Z	QC	1640.00	57.26	1772.12	-3.007
5208117Z	QC	1626.00	63.32	1772.12	-5.413
5208118Z	QC	1621.00	65.49	1772.11	-3.007
5208119Z	QC	1615.00	67.97	1771.85	-10.827
5208120Z	QC	1640.00	57.21	1772.02	-12.625
5208121Z	QC	1645.00	55.07	1772.09	-1.232
5208122Z	QC	1645.00	55.07	1772.08	0.000
5208123Z	QC	1656.00	50.22	1771.90	-7.937
5208124Z	QC	1632.00	60.59	1771.81	-3.609
5208125Z	QC	1632.00	60.59	1771.81	-3.609
5208126Z	QC	1636.00	58.84	1771.79	-3.609
5208127Z	QC	1668.00	45.04	1771.93	-3.609
5208128Z	QC	1693.00	34.25	1772.04	-6.616
5208130Z	QC	1672.00	43.35	1772.04	-5.414
5208131Z	QC	1700.00	31.22	1772.04	-3.007
5208133Z	QC	1680.00	39.89	1772.04	-1.804
5208135Z	QC	1680.00	39.89	1772.04	0.000
5208136Z	QC	1680.00	39.89	1772.04	-1.804
5208138Z	QC	1684.00	38.14	1772.01	-4.210
5208150Z	QC	1672.00	43.35	1772.04	0.000
5215113Z	QC	1649.00	40.20	1741.77	0.000
5215121Z	QC	1576.00	74.96	1748.98	-4.210
5215122Z	QC	1638.00	48.09	1748.98	-1.232
5215124Z	QC	1568.00	79.49	1751.42	-3.609
5215125Z	QC	1580.00	74.29	1751.42	-1.232
5215126Z	QC	1580.00	75.22	1753.58	-3.007
5215127Z	QC	1600.00	67.16	1754.98	0.000
5215128Z	QC	1608.00	63.77	1755.16	-1.804
5215129Z	QC	1608.00	63.77	1755.16	-1.232
52157Z	QC	1574.61	85.55	1772.02	-10.457
5216101Z	QC	1612.00	62.83	1756.98	-6.616
5216102Z	QC	1614.00	61.94	1756.94	-7.819
5216103Z	QC	1580.00	76.62	1756.80	-8.421
5216104Z	QC	1648.00	47.20	1756.93	-5.413
5216105Z	QC	1586.00	73.66	1755.98	-3.609
5216106Z	QC	1620.00	58.93	1755.98	-4.210
5216107Z	QC	1608.00	64.03	1755.75	-4.812
5216108Z	QC	1647.00	47.12	1755.74	-5.413
5216109Z	QC	1620.00	58.82	1755.74	-1.804
5216110Z	QC	1620.00	61.59	1762.13	-10.820
5216111Z	QC	1627.00	58.56	1762.13	0.000
5216112Z	QC	1620.00	62.52	1764.26	0.000
5216113Z	QC	1627.00	58.56	1762.13	-0.601
5216114Z	QC	1620.00	62.52	1764.26	-1.804
5216115Z	QC	1610.00	66.85	1764.25	-1.804
5216116Z	QC	1628.00	60.75	1768.19	0.000
5216117Z	QC	1660.00	46.98	1768.40	-7.218
5216118Z	QC	1740.00	12.48	1768.80	-6.015
5216119Z	QC	1753.00	6.93	1768.98	0.000
5216120Z	QC	1624.00	62.97	1769.32	-9.022
5216121Z	QC	1644.00	54.26	1769.20	-7.819
5216708Z	PC	1785.00	0.00	1769.00	0.000
5217101Z	QC	1652.00	51.57	1771.01	-7.094
5217102Z	QC	1646.00	53.90	1770.38	-10.820
5217103Z	QC	1620.00	65.41	1770.93	0.000
5217104Z	QC	1620.00	65.41	1770.93	-1.804
5217105Z	QC	1620.00	65.43	1770.99	-9.624
5217106Z	QC	1672.00	42.55	1770.19	-3.007
5217107Z	QC	1672.00	42.55	1770.18	-3.609
5217108Z	QC	1680.00	39.08	1770.19	-2.406
5217109Z	QC	1700.00	30.62	1770.66	-9.624
5217110Z	QC	1660.00	48.13	1771.07	-10.523
5217111Z	QC	1740.00	13.46	1771.05	-8.421
5217112Z	QC	1640.00	56.86	1771.22	-6.015
5217113Z	QC	1660.00	48.20	1771.21	-3.609
5217116Z	QC	1628.00	62.28	1771.70	-10.461
5217117Z	QC	1604.00	74.70	1776.36	-1.804
5217118Z	QC	1588.00	80.92	1774.74	-1.804

5217117Z	QC	1604.00	74.70	1776.36	-1.804
5217118Z	QC	1588.00	80.92	1774.74	-1.804
5217119Z	QC	1612.00	69.57	1772.54	-6.133
5217120Z	QC	1612.00	69.21	1771.71	-2.406
5217121Z	QC	1610.00	76.15	1785.72	-3.007
5217122Z	QC	1600.00	75.07	1773.22	-6.015
5217123Z	QC	1596.00	76.74	1773.07	-5.413
5217124Z	QC	1604.00	72.70	1771.75	-11.242
5217125Z	QC	1592.00	81.17	1779.31	-1.804
5217126Z	QC	1588.00	80.09	1772.82	-4.124
5217127Z	QC	1628.00	62.12	1771.35	-3.551
5217128Z	QC	1610.00	77.01	1787.71	-1.804
5217129Z	QC	1592.00	82.51	1782.39	-5.413
5217130Z	QC	1605.00	74.76	1777.52	-6.616
5217131Z	QC	1604.00	75.19	1777.52	-2.406
5217132Z	QC	1612.00	69.24	1771.77	-5.891
5217133Z	QC	1600.00	74.38	1771.64	-6.015
5217134Z	QC	1640.00	56.95	1771.41	-4.210
5217135Z	QC	1674.00	42.21	1771.40	-6.616
5217136Z	QC	1604.00	72.66	1771.67	-4.812
5217137Z	QC	1600.00	74.41	1771.70	-3.007
5217138Z	QC	1583.00	81.86	1771.90	-6.015
5217139Z	QC	1640.00	57.07	1771.69	-2.406
5217140Z	QC	1612.00	69.38	1772.10	-4.210
5217141Z	QC	1580.00	83.18	1771.94	-10.461
5217142Z	QC	1576.00	84.95	1772.02	-19.750
5217143Z	QC	1614.00	68.47	1772.00	-14.436
5217144Z	QC	1588.00	79.71	1771.94	-4.812
5217145Z	QC	1620.00	66.83	1774.22	-3.609
5217146Z	QC	1606.00	74.00	1776.75	-15.037
5217147Z	QC	1589.00	79.75	1773.02	-19.248
5217148Z	QC	1605.00	72.53	1772.37	-24.661
5217149Z	QC	1570.00	87.53	1771.99	-8.421
5217150Z	QC	1580.00	83.16	1771.90	-8.421
5217151Z	QC	1580.00	83.17	1771.91	-10.225
5217152Z	QC	1582.00	82.30	1771.90	-3.609
5217153Z	QC	1585.00	81.00	1771.90	-1.804
5217154Z	QC	1591.00	78.40	1771.90	-3.609
5217155Z	QC	1610.00	70.16	1771.90	-6.015
5217156Z	QC	1618.00	67.28	1773.25	-6.616
5217157Z	QC	1578.00	84.12	1772.10	-57.473
5217158Z	QC	1600.00	74.71	1772.41	-22.858
5217159Z	QC	1601.88	74.09	1772.86	0.000
5217160Z	QC	1603.09	73.62	1772.98	0.000
5218101Z	QC	1604.00	73.30	1773.15	-4.812
5218102Z	QC	1560.00	91.87	1771.99	-1.804
5218103Z	QC	1590.00	78.87	1771.99	-1.804
5301101Z	QC	1614.00	78.06	1794.13	-7.750
5301102Z	QC	1580.00	92.79	1794.12	-11.860
5301103Z	QC	1553.00	104.49	1794.12	0.000
5301104Z	QC	1606.00	81.42	1793.87	-21.860
5301105Z	QC	1665.00	55.81	1793.78	-13.040
5301106Z	QC	1640.00	66.67	1793.85	-10.582
5301107Z	QC	1683.00	48.01	1793.78	-9.510
5312101Z	QC	1703.00	39.34	1793.78	-10.100
5312102Z	QC	1734.00	25.93	1793.84	-5.879
BES-BER	QC	1593.00	64.73	1742.38	-8.421
BES-TRU	QC	1612.00	56.41	1742.16	-5.413
BES-VIS	QC	1597.00	64.75	1746.41	-1.232
BET-TRU	QC	1612.00	55.98	1741.18	-8.421
BEV-BER	QC	1651.00	39.37	1741.84	-9.022
BEV-CAL	QC	1620.00	49.46	1734.14	-12.030
BEV-END	QC	1664.00	33.73	1741.83	-6.616
BEV-TRU	QC	1640.00	42.75	1738.65	-10.461
CAL-END	QC	1628.00	43.72	1728.89	-2.406
CLI-NN	QC	1621.00	48.20	1732.23	-3.007
CLI-TRU	QC	1654.00	35.97	1737.00	-7.218
G-H	QC	1664.00	25.08	1721.87	-10.000
G-HP	QC	1667.00	19.84	1712.78	-1510.000

G-H	QC	1664.00	25.08	1721.87	-10.000
G-HP	QC	1667.00	19.84	1712.78	-1510.000
GIL-END	QC	1665.00	36.39	1748.98	-1.804
H-G	QC	1630.00	41.26	1725.22	-10.000
H-I	QC	1615.00	49.40	1728.99	-10.000
H-NN	QC	1626.00	45.59	1731.21	-10.000
H-OO	QC	1607.00	52.42	1727.97	-10.000
H74-CAL	QC	1590.00	63.24	1735.92	-1.232
H74-VIS	QC	1582.00	71.29	1746.51	-6.616
HOMEPS	QC	1589.00	66.99	1743.59	696.391
I-H	QC	1618.00	47.35	1727.25	-10.000
KEI-BET	QC	1596.00	61.05	1736.87	-10.585
KEI-CAL	QC	1596.00	60.64	1735.92	-3.007
KEI-END	QC	1640.00	43.47	1740.31	-3.609
KEI-TRU	QC	1620.00	52.16	1740.35	-7.875
VIS-END	QC	1621.00	54.34	1746.40	-2.406
VISTANK	PC	1811.00	0.00	1795.00	0.000
tankb	QC	1771.00	8.64	1790.93	0.000
tankt	PC	1811.00	0.00	1791.00	0.000

*** PIPE REPORT ***

FROM NODE	TO NODE	TYPE	FLOW, gpm	VEL, ft/sec	DH/1000	LENGTH, ft	DIA, in	FRICION
H74-CAL	KEI-CAL	HW	-1.23	-0.01	-0.000	460.0	6.00	100.0000
KEI-CAL	KEI-BET	HW	-151.71	-1.72	-3.670	260.0	6.00	100.0000
KEI-BET	KEI-TRU	HW	-132.41	-1.50	-2.853	1220.0	6.00	100.0000
KEI-TRU	BET-TRU	HW	-377.91	-2.41	-4.107	200.0	8.00	110.0000
BET-TRU	KEI-BET	HW	29.88	0.76	3.361	1280.0	4.00	60.0000
KEI-TRU	BEV-TRU	HW	362.83	2.32	3.809	448.0	8.00	110.0000
BEV-TRU	BEV-CAL	HW	28.54	0.73	3.086	1460.0	4.00	60.0000
BEV-CAL	KEI-CAL	HW	-147.47	-1.67	-4.233	420.0	6.00	90.0000
BEV-TRU	CLI-TRU	HW	359.86	2.30	3.751	440.0	8.00	110.0000
CLI-TRU	CLI-NN	HW	352.64	2.25	3.613	1320.0	8.00	110.0000
BEV-CAL	CAL-END	HW	2.41	0.44	7.963	660.0	1.50	40.0000
BET-TRU	BES-TRU	HW	-416.21	-2.66	-4.911	200.0	8.00	110.0000
BES-TRU	HOMEPS	HW	-390.54	-2.49	-4.365	328.0	8.00	110.0000
BEV-TRU	5215113Z	HW	-36.03	-0.92	-4.751	656.0	4.00	60.0000
5215113Z	BEV-BER	HW	-36.03	-0.41	-0.311	256.0	6.00	90.0000
BEV-BER	BES-BER	HW	-51.66	-0.59	-0.607	879.0	6.00	90.0000
BES-BER	BES-TRU	HW	31.08	0.35	0.237	928.0	6.00	90.0000
HOMEPS	H74-VIS	HW	-881.76	-2.50	-2.521	1160.0	12.00	115.0000
BES-BER	BES-VIS	HW	-91.17	-2.33	-26.521	152.0	4.00	60.0000
BES-VIS	VIS-END	HW	2.41	0.06	0.032	340.0	4.00	60.0000
KEI-TRU	KEI-END	HW	3.61	0.09	0.067	644.0	4.00	60.0000
BES-VIS	H74-VIS	HW	-94.81	-0.61	-0.379	278.3	8.00	100.0000
BEV-BER	BEV-END	HW	6.62	0.08	0.013	841.0	6.00	90.0000
H74-VIS	5215121Z	HW	-983.19	-2.79	-3.084	800.0	12.00	115.0000
5215121Z	5215122Z	HW	3.04	0.03	0.003	701.0	6.00	90.0000
5215122Z	GIL-END	HW	1.80	0.02	0.001	452.0	6.00	90.0000
5215121Z	5215124Z	HW	-990.43	-2.81	-3.127	780.0	12.00	115.0000
5215124Z	5215125Z	HW	1.23	0.03	0.009	372.0	4.00	60.0000
5215124Z	5215126Z	HW	-995.27	-2.82	-3.155	684.0	12.00	115.0000
5215126Z	5215127Z	HW	-998.28	-2.83	-3.173	440.0	12.00	115.0000
5215127Z	5215128Z	HW	-23.53	-0.60	-2.160	84.0	4.00	60.0000
5215127Z	5216101Z	HW	-974.75	-2.77	-3.036	660.0	12.00	115.0000
5216101Z	5216102Z	HW	39.80	0.45	0.374	100.0	6.00	90.0000
5216102Z	5215128Z	HW	26.57	0.68	2.704	660.0	4.00	60.0000
5215128Z	5215129Z	HW	1.23	0.03	0.009	100.0	4.00	60.0000
5216102Z	5216104Z	HW	5.41	0.06	0.009	1400.0	6.00	90.0000
5216101Z	5216103Z	HW	28.27	0.32	0.199	920.0	6.00	90.0000
5216103Z	5216105Z	HW	19.85	0.51	1.576	516.0	4.00	60.0000
5216105Z	5216106Z	HW	4.21	0.05	0.006	480.0	6.00	90.0000
5216105Z	5216107Z	HW	12.03	0.31	0.623	380.0	4.00	60.0000

5216105Z	5216106Z	HW	4.21	0.05	0.006	480.0	6.00	90.0000
5216105Z	5216107Z	HW	12.03	0.31	0.623	380.0	4.00	60.0000
5216107Z	5216108Z	HW	7.22	0.08	0.016	560.0	6.00	90.0000
5216108Z	5216109Z	HW	1.80	0.02	0.001	700.0	6.00	90.0000
5216101Z	5216110Z	HW	-1049.43	-2.98	-3.480	1480.0	12.00	115.0000
5216110Z	5216111Z	HW	0.60	0.00	0.000	459.0	8.00	100.0000
5216111Z	5216113Z	HW	0.60	0.00	0.000	200.0	8.00	100.0000
5216110Z	5216112Z	HW	-1060.85	-3.01	-3.551	600.0	12.00	115.0000
5216112Z	5216114Z	HW	3.61	0.04	0.004	92.0	6.00	90.0000
5216114Z	5216115Z	HW	1.80	0.05	0.019	500.0	4.00	60.0000
5216112Z	5216116Z	HW	-1064.46	-3.02	-3.573	1100.0	12.00	115.0000
5216116Z	5216117Z	HW	-440.28	-1.25	-0.697	300.0	12.00	115.0000
5216117Z	5216118Z	HW	-377.01	-1.07	-0.523	760.0	12.00	115.0000
5216118Z	5216119Z	HW	-383.02	-1.09	-0.538	344.0	12.00	115.0000
5216116Z	5216120Z	HW	-624.18	-1.77	-1.330	848.0	12.00	115.0000
5216120Z	5216121Z	HW	6.15	0.16	0.180	668.0	4.00	60.0000
5216121Z	5216117Z	HW	70.49	0.80	1.079	740.0	6.00	90.0000
5216121Z	5217102Z	HW	-72.16	-0.82	-1.127	1052.0	6.00	90.0000
5216120Z	5217105Z	HW	-639.35	-1.81	-1.390	1200.0	12.00	115.0000
5217105Z	5217103Z	HW	12.22	0.31	0.642	80.0	4.00	60.0000
5217103Z	5217104Z	HW	1.80	0.05	0.019	192.0	4.00	60.0000
5217103Z	5217102Z	HW	10.42	0.27	0.477	1156.0	4.00	60.0000
5217102Z	5217101Z	HW	-81.59	-0.93	-1.414	440.0	6.00	90.0000
5217102Z	5217106Z	HW	9.02	0.23	0.366	520.0	4.00	60.0000
5217106Z	5217107Z	HW	3.61	0.09	0.067	232.0	4.00	60.0000
5217106Z	5217108Z	HW	2.41	0.06	0.032	184.0	4.00	60.0000
5217101Z	5217109Z	HW	9.62	0.25	0.412	840.0	4.00	60.0000
5217101Z	5217110Z	HW	-18.93	-0.21	-0.095	660.0	6.00	90.0000
5217110Z	5217111Z	HW	8.42	0.10	0.021	920.0	6.00	90.0000
5217110Z	5217112Z	HW	-37.88	-0.43	-0.342	436.0	6.00	90.0000
5217112Z	5217113Z	HW	3.61	0.04	0.004	560.0	6.00	90.0000
5217101Z	5217116Z	HW	-79.37	-0.90	-1.344	520.0	6.00	90.0000
5217116Z	5217119Z	HW	-78.65	-0.89	-1.322	632.0	6.00	90.0000
5217119Z	5217120Z	HW	121.78	1.38	2.969	280.0	6.00	90.0000
5217105Z	5217120Z	HW	-661.20	-1.88	-1.479	488.0	12.00	115.0000
5217120Z	5208101Z	HW	-54.14	-0.61	-0.662	200.0	6.00	90.0000
5208101Z	5208102Z	HW	-45.22	-1.15	-7.239	620.0	4.00	60.0000
5208102Z	5217117Z	HW	-57.08	-0.65	-0.730	48.0	6.00	90.0000
5217120Z	5217118Z	HW	-487.69	-3.11	-6.587	460.0	8.00	110.0000
5217118Z	5217117Z	HW	-525.74	-3.36	-9.031	180.0	8.00	100.0000
5208102Z	5208104Z	HW	11.86	0.30	0.607	32.0	4.00	60.0000
5217117Z	5217125Z	HW	-584.63	-3.73	-10.994	268.0	8.00	100.0000
5217125Z	5217121Z	HW	-652.08	-4.16	-13.457	476.0	8.00	100.0000
5217121Z	5217122Z	HW	96.02	2.45	29.193	428.0	4.00	60.0000
5217122Z	5217123Z	HW	114.20	0.73	0.534	277.5	8.00	100.0000
5217125Z	5217123Z	HW	65.65	1.68	14.438	432.0	4.00	60.0000
5217123Z	5217126Z	HW	174.44	1.11	1.171	220.0	8.00	100.0000
5217126Z	5217119Z	HW	206.56	1.32	1.601	172.2	8.00	100.0000
5217126Z	5217118Z	HW	-36.25	-0.93	-4.807	400.0	4.00	60.0000
5217122Z	5217124Z	HW	24.81	0.63	2.382	616.0	4.00	60.0000
5217124Z	5217127Z	HW	13.24	0.34	0.745	540.0	4.00	60.0000
5217112Z	5217127Z	HW	-47.50	-0.54	-0.519	260.0	6.00	90.0000
5217121Z	5217128Z	HW	-751.11	-4.79	-14.656	136.0	8.00	110.0000
5217128Z	5217129Z	HW	685.65	4.38	14.768	360.0	8.00	100.0000
5217129Z	5217130Z	HW	58.03	1.48	11.487	424.0	4.00	60.0000
5217130Z	5217122Z	HW	49.00	1.25	8.400	512.0	4.00	60.0000
5217130Z	5217131Z	HW	2.41	0.06	0.032	160.0	4.00	60.0000
5217124Z	5217132Z	HW	-10.85	-0.12	-0.034	540.0	6.00	90.0000
5217132Z	5217133Z	HW	31.28	0.35	0.240	548.0	6.00	90.0000
5217133Z	5217134Z	HW	48.64	0.55	0.543	432.0	6.00	90.0000
5217134Z	5217135Z	HW	6.62	0.08	0.013	570.0	6.00	90.0000
5217134Z	5217127Z	HW	37.81	0.43	0.340	160.0	6.00	90.0000
5217133Z	5217136Z	HW	-23.37	-0.27	-0.140	200.0	6.00	90.0000
5217136Z	5217137Z	HW	-28.18	-0.32	-0.198	150.0	6.00	90.0000
5217137Z	5217138Z	HW	-33.60	-0.38	-0.274	746.0	6.00	90.0000
5217137Z	5217139Z	HW	2.41	0.06	0.032	300.0	4.00	60.0000
5217138Z	5217141Z	HW	-32.24	-0.37	-0.253	152.0	6.00	90.0000
5217141Z	5217142Z	HW	-29.84	-0.34	-0.220	376.0	6.00	90.0000
5217142Z	5217140Z	HW	-36.45	-0.41	-0.318	228.0	6.00	90.0000

5217141Z	5217142Z	HW	-29.84	-0.34	-0.220	376.0	6.00	90.0000
5217142Z	5217140Z	HW	-36.45	-0.41	-0.318	228.0	6.00	90.0000
5217132Z	5217143Z	HW	-48.03	-0.54	-0.530	436.0	6.00	90.0000
5217143Z	5217140Z	HW	-28.49	-0.32	-0.202	460.0	6.00	90.0000
5217143Z	5217144Z	HW	4.81	0.12	0.114	536.0	4.00	60.0000
5217129Z	5217146Z	HW	622.22	3.97	12.338	457.0	8.00	100.0000
5217146Z	5217143Z	HW	38.79	0.99	5.448	872.0	4.00	60.0000
5217145Z	5217147Z	HW	123.73	1.40	3.058	392.0	6.00	90.0000
5217147Z	5217148Z	HW	84.51	0.96	1.510	436.0	6.00	90.0000
5217148Z	5217140Z	HW	69.15	0.78	1.041	260.0	6.00	90.0000
5217116Z	5217124Z	HW	-11.18	-0.13	-0.036	1388.0	6.00	90.0000
5217138Z	5217150Z	HW	-7.37	-0.05	-0.003	352.0	8.00	100.0000
5217150Z	5217151Z	HW	-21.80	-0.14	-0.025	308.0	8.00	100.0000
5217151Z	5217149Z	HW	-41.05	-0.26	-0.080	976.0	8.00	100.0000
5217151Z	5217152Z	HW	9.02	0.10	0.024	300.0	6.00	90.0000
5217152Z	5217153Z	HW	1.80	0.02	0.001	356.0	6.00	90.0000
5217152Z	5217154Z	HW	3.61	0.04	0.004	216.0	6.00	90.0000
5217150Z	5217155Z	HW	6.01	0.07	0.011	536.0	6.00	90.0000
5217145Z	5217156Z	HW	311.16	1.99	2.866	338.0	8.00	110.0000
5217156Z	5218101Z	HW	132.11	0.37	0.075	1374.0	12.00	115.0000
52157Z	5217149Z	HW	53.08	0.34	0.108	240.0	8.00	110.0000
52157Z	5217141Z	HW	12.87	0.15	0.046	1616.0	6.00	90.0000
5217157Z	52157Z	HW	76.40	0.49	0.213	404.0	8.00	110.0000
5217157Z	5217142Z	HW	13.14	0.15	0.048	1624.0	6.00	90.0000
5217158Z	5217157Z	HW	147.02	0.94	0.715	428.0	8.00	110.0000
5217158Z	5217148Z	HW	9.29	0.11	0.025	1616.0	6.00	90.0000
5217159Z	5217158Z	HW	179.17	1.14	1.031	436.0	8.00	110.0000
5218101Z	5217160Z	HW	159.20	1.02	0.829	208.0	8.00	110.0000
5217160Z	5217159Z	HW	159.20	1.02	0.829	148.0	8.00	110.0000
5217147Z	5217159Z	HW	19.97	0.23	0.104	1608.0	6.00	90.0000
5217149Z	5218103Z	HW	3.61	0.02	0.001	514.0	8.00	110.0000
5218103Z	5218102Z	HW	1.80	0.01	0.000	812.0	8.00	110.0000
5217156Z	5208103Z	HW	172.44	1.10	0.961	1300.0	8.00	110.0000
5208103Z	5208105Z	HW	-177.56	-1.13	-1.014	25.0	8.00	110.0000
5208105Z	5208106Z	HW	0.00	0.00	0.000	15.0	12.00	115.0000
5208107Z	5208110Z	HW	0.00	0.00	0.000	60.0	12.00	115.0000
5217146Z	5208111Z	HW	568.39	3.63	8.746	32.0	8.00	110.0000
5208111Z	5217145Z	HW	438.50	2.80	5.410	416.0	8.00	110.0000
5208111Z	5208112Z	HW	129.89	1.47	3.346	1300.0	6.00	90.0000
5208112Z	5208105Z	HW	181.68	0.52	0.135	684.0	12.00	115.0000
5208104Z	5208113Z	HW	-30.73	-0.78	-3.540	872.0	4.00	60.0000
5217128Z	5208113Z	HW	190.59	4.87	103.911	80.0	4.00	60.0000
5208113Z	5208114Z	HW	149.10	3.81	65.946	110.0	4.00	60.0000
5208114Z	5208112Z	HW	65.95	0.19	0.021	860.7	12.00	115.0000
5208104Z	5208115Z	HW	31.16	0.80	3.633	1152.0	4.00	60.0000
5208115Z	5208116Z	HW	3.01	0.03	0.003	312.0	6.00	90.0000
5208115Z	5208117Z	HW	17.63	0.20	0.083	32.0	6.00	90.0000
5208117Z	5208114Z	HW	-72.62	-0.21	-0.025	828.0	12.00	115.0000
5208117Z	5208118Z	HW	84.84	0.24	0.033	218.0	12.00	115.0000
5208101Z	5208119Z	HW	-11.93	-0.14	-0.040	240.0	6.00	90.0000
5208119Z	5208120Z	HW	-29.01	-0.33	-0.208	808.0	6.00	90.0000
5208118Z	5208121Z	HW	81.84	0.23	0.031	862.0	12.00	115.0000
5208120Z	5208122Z	HW	-49.15	-0.56	-0.553	120.0	6.00	90.0000
5208122Z	5208121Z	HW	-49.15	-0.31	-0.094	30.0	8.00	110.0000
5208120Z	5208123Z	HW	7.52	0.19	0.261	468.0	4.00	60.0000
5208123Z	5208124Z	HW	4.57	0.12	0.104	804.0	4.00	60.0000
5208119Z	5208125Z	HW	6.26	0.16	0.186	208.0	4.00	60.0000
5208125Z	5208126Z	HW	3.61	0.09	0.067	360.0	4.00	60.0000
5208125Z	5208124Z	HW	-0.96	-0.02	-0.006	240.0	4.00	60.0000
5208123Z	5208127Z	HW	-4.99	-0.13	-0.122	244.0	4.00	60.0000
5208127Z	5208150Z	HW	-8.60	-0.22	-0.334	340.0	4.00	60.0000
5208150Z	5208130Z	HW	-7.06	-0.05	-0.003	26.0	8.00	110.0000
5208130Z	5208131Z	HW	3.01	0.02	0.001	740.0	8.00	110.0000
5208150Z	5208133Z	HW	-1.54	-0.04	-0.014	260.0	4.00	60.0000
5208133Z	5208135Z	HW	23.90	0.15	0.025	26.0	8.00	110.0000
5208130Z	5208135Z	HW	-15.48	-0.10	-0.011	260.0	8.00	110.0000
5208135Z	5208136Z	HW	8.42	0.05	0.004	260.0	8.00	110.0000
5208136Z	5208128Z	HW	6.62	0.04	0.002	480.0	8.00	110.0000
5208133Z	5208138Z	HW	4.21	0.11	0.089	420.0	4.00	60.0000

5208136Z	5208128Z	HW	6.62	0.04	0.002	480.0	8.00	110.0000
5208133Z	5208138Z	HW	4.21	0.11	0.089	420.0	4.00	60.0000
5208133Z	5208121Z	HW	-31.45	-0.20	-0.041	1080.0	8.00	110.0000
5208110Z	5207101Z	HW	25.81	0.29	0.168	788.0	6.00	90.0000
5207101Z	5207102Z	HW	15.50	0.10	0.011	402.0	8.00	110.0000
5207102Z	5207103	HW	7.75	0.05	0.003	340.0	8.00	110.0000
5207101Z	5207106Z	HW	-3.32	-0.02	-0.001	400.0	8.00	110.0000
5207106Z	5207105Z	HW	7.75	0.05	0.003	309.0	8.00	110.0000
5207106Z	5207107Z	HW	-24.70	-0.28	-0.155	872.0	6.00	90.0000
5208110Z	5207107Z	HW	-35.85	-0.10	-0.007	425.0	12.00	115.0000
5207107Z	5207108Z	HW	-74.18	-0.21	-0.026	888.0	12.00	115.0000
5207108Z	5207109Z	HW	-81.93	-0.23	-0.031	3921.0	12.00	115.0000
5207109Z	5207110Z	HW	186.39	0.53	0.142	980.0	12.00	115.0000
5207110Z	5207111Z	HW	12.45	0.08	0.007	1279.0	8.00	110.0000
5207110Z	5207112Z	HW	162.08	0.46	0.109	1666.0	12.00	115.0000
5207112Z	5207114Z	HW	154.33	0.99	0.782	9.0	8.00	110.0000
5207113Z	5207115Z	HW	-154.33	-0.99	-0.782	20.0	8.00	110.0000
5207114Z	5207116Z	HW	154.33	0.99	0.782	24.0	8.00	110.0000
5207118Z	5207115Z	HW	154.33	0.99	0.782	24.0	8.00	110.0000
5218101Z	5207119Z	HW	-31.90	-0.09	-0.005	2644.0	12.00	115.0000
5207119Z	5207113Z	HW	-154.33	-0.44	-0.100	24.0	12.00	115.0000
5207109Z	5207120Z	HW	-284.88	-0.59	-0.147	1347.0	14.00	115.0000
5207120Z	5207121Z	HW	20.78	0.13	0.019	1334.0	8.00	110.0000
5207121Z	5207122Z	HW	9.51	0.06	0.004	503.0	8.00	110.0000
5207120Z	5207123Z	HW	-465.49	-0.97	-0.365	620.0	14.00	115.0000
5207123Z	5207124Z	HW	10.69	0.12	0.033	678.0	6.00	90.0000
5207123Z	5207125Z	HW	-483.93	-1.01	-0.392	228.0	14.00	115.0000
5207125Z	5207126Z	HW	17.85	0.11	0.014	2122.0	8.00	110.0000
5207126Z	5207127Z	HW	7.75	0.05	0.003	402.0	8.00	110.0000
5207125Z	5207128Z	HW	-511.29	-0.82	-0.226	556.0	16.00	115.0000
5207128Z	5207129Z	HW	-523.74	-0.84	-0.237	1454.0	16.00	115.0000
5207129Z	5206101Z	HW	27.95	0.18	0.033	623.0	8.00	110.0000
5206101Z	5206102Z	HW	9.51	0.06	0.004	360.0	8.00	110.0000
5206101Z	5206103Z	HW	8.93	0.06	0.004	300.0	8.00	110.0000
5207129Z	5206104Z	HW	-773.56	-1.23	-0.487	860.0	16.00	115.0000
5206104Z	5207104Z	HW	-786.01	-1.25	-0.502	1961.0	16.00	115.0000
5207104Z	5206105Z	HW	12.45	0.08	0.007	752.0	8.00	110.0000
5207104Z	5206106Z	HW	-809.15	-1.29	-0.530	701.0	16.00	115.0000
5206106Z	5206107Z	HW	-921.69	-1.47	-0.674	1122.0	16.00	115.0000
5206106Z	5206105Z	HW	9.51	0.03	0.001	650.0	12.00	115.0000
5206106Z	5301101Z	HW	95.28	0.12	0.005	1614.0	18.00	120.0000
5301101Z	5301102Z	HW	87.53	0.11	0.004	1378.0	18.00	120.0000
5301102Z	5301103Z	HW	0.00	0.00	0.000	1173.0	18.00	120.0000
5301102Z	5301104Z	HW	75.67	0.48	0.209	1195.2	8.00	110.0000
5301104Z	5301105Z	HW	32.65	0.21	0.044	2000.0	8.00	110.0000
5301105Z	5301107Z	HW	9.51	0.06	0.004	600.0	8.00	110.0000
5301105Z	5312101Z	HW	10.10	0.06	0.005	1340.0	8.00	110.0000
5301104Z	5301106Z	HW	21.16	0.14	0.020	1276.0	8.00	110.0000
5301106Z	5312102Z	HW	10.58	0.07	0.005	2258.0	8.00	110.0000
5312102Z	5206145Z	HW	4.70	0.03	0.001	1887.0	8.00	110.0000
5217128Z	tankb	HW	-1629.16	-2.05	-1.008	3200.0	18.00	120.0000
CLI-NN	H-NN	HW	1570.00	4.45	6.782	150.0	12.00	120.0000
H-NN	H-I	HW	625.96	4.00	8.901	250.0	8.00	120.0000
H-I	H-00	HW	282.40	1.80	2.038	500.0	8.00	120.0000
H-00	I-H	HW	272.40	1.74	1.907	375.0	8.00	120.0000
H-I	I-H	HW	333.57	2.13	2.775	625.0	8.00	120.0000
H-NN	G-H	HW	934.04	5.96	18.678	500.0	8.00	120.0000
G-H	G-HP	HW	1510.00	9.64	45.461	200.0	8.00	120.0000
G-H	H-G	HW	-585.96	-3.74	-7.877	425.0	8.00	120.0000
H-G	I-H	HW	-595.96	-3.80	-8.127	250.0	8.00	120.0000
BEV-CAL	CLI-NN	HW	1220.37	3.46	4.253	450.0	12.00	120.0000
BEV-CAL	KEI-TRU	HW	-1058.80	-3.00	-3.270	1900.0	12.00	120.0000
KEI-TRU	HOMEPS	HW	-1187.61	-3.37	-4.044	800.0	12.00	120.0000
BES-VIS	BES-BER	HW	0.00	0.00	26.875	150.0	0.01	120.0000

*** P R E S S U R E R E G U L A T O R S T A T U S ***

FROM NODE	TO NODE	PRES, psig	PRES, psig	SETTING, psig	FLOW, gpm	OPENING, TAU
5208109Z	5208108Z	59.904	51.583*	50.000	0.000	0.000
5207116Z	5207117Z	102.720	95.000	95.000	154.330	0.052*

*** TANK STATUS ***

FROM NODE	TO NODE	HGL, ft	LEVEL, ft	VOLUME, MG	VOL CHANGE, MG	FLOW, gpm	TAU
5216119Z	5216T08Z	1769.000	16.00	1.610000	0.000000	-383.021	1.000
5206107Z	VISTANK	1795.000	16.00	0.437500	0.000000	-921.694	1.000
tankb	tankt	1791.000	20.00	2.070000	0.000000	-1629.16	1.000

*** VALVE REPORT ***

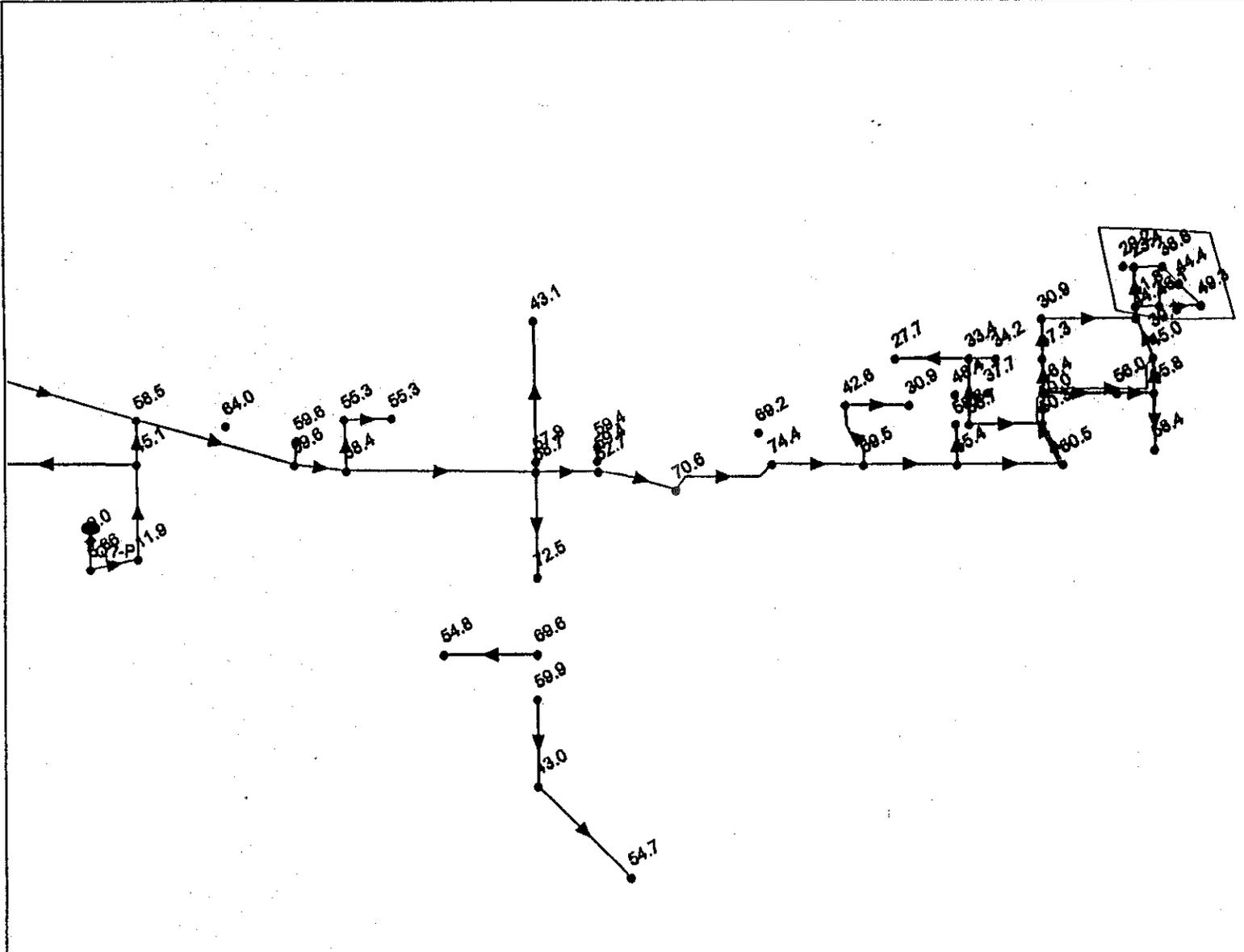
FROM NODE	TO NODE	TYPE	FLOW gpm	HEAD DROP ft	TAU	KO	DIA in
5208106Z	5208107Z	VL	0.00	-19.20	0.000	1.0000	12.00
5208106Z	5208108Z	VL	0.00	0.00	1.000	1.0000	12.00
5208107Z	5208109Z	VL	0.00	0.00	1.000	1.0000	12.00
5207112Z	5207113Z	VL	0.00	17.89	0.000	1.0000	12.00
5207114Z	5207115Z	VL	0.00	17.87	0.000	1.0000	12.00
5207117Z	5207118Z	VL	154.33	0.02	1.000	1.0000	8.00

HEARTLAND PA13
PROP. 12" IN TRUELSON, NEW TANK OFF, FF=1000
HOMELAND PS OFF, HIGH PAD ELEV. =1667'

Model Name: 1786HEAR

April 14, 1999 11:01 AM

INTERNAL DIAM (in)		
----	RANGE-----	COUNT
BELOW	4.10	50
	4.10 6.10	64
	6.10 8.10	75
	8.10 12.10	35
ABOVE	12.10	12
NON-PIPE		11
MIN	= 0.00800	
MAX	= 18.00000	
ANNOTATION:		
NODE P	ps1g	
NODE OFF		
NODE OFF		
ELEM OFF		
State: Balanced		
Corners: (FEET)		
UL:	(-1764, 1130)	
LL:	(-1764, -784)	
UR:	(1295, 1130)	
LR:	(1295, -784)	

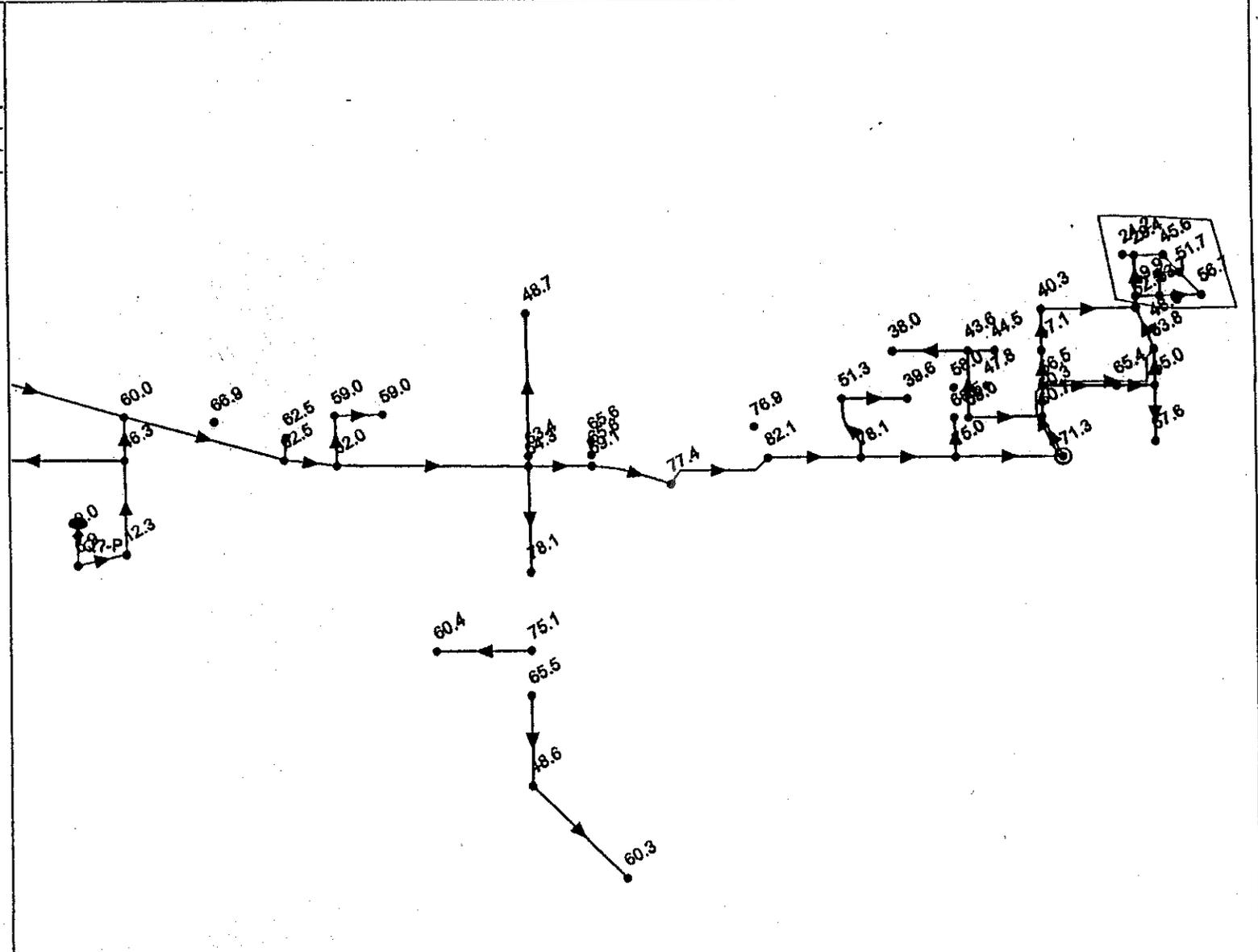


HEARTLAND PA13
PROP. 12" IN TRUELSON, NEW TANK OFF, FF=1500
HOMELAND PS ON @ 1000 GPM, HIGH PAD ELEV. =1667'

Model Name: 1786HEAR

April 14, 1999 10:57 AM

INTERNAL DIAH (in)		
----	RANGE	----- COUNT
BELOW	4.10	50
	4.10 6.10	64
	6.10 8.10	75
	8.10 12.10	35
ABOVE	12.10	12
NON-PIPE 11		
MIN = 0.00800		
MAX = 18.00000		
ANNOTATION:		
NODE P	psig	
NODE OFF		
NODE OFF		
ELEM OFF		
State: Balanced		
Corners: (FEET)		
UL: (-1716, 1099)		
LL: (-1716, -815)		
UR: (1343, 1099)		
LR: (1343, -815)		



HEARTL PA13
PROP. 12" IN TRUELSON, NEW TANK ON, FF=1500
HOMELAND PS OFF, HIGH PAD ELEV. =1667'

April 14, 1999 11:47 AM

Model Name: 1786HEAR

INTERNAL DIAH (1n)		
----	RANGE	COUNT
BELOW	4.10	49
	4.10 6.10	64
	6.10 8.10	75
	8.10 12.10	35
ABOVE	12.10	13
NON-PIPE		11
MIN = 0.00800		
MAX = 18.00000		
ANNOTATION:		
NODE P	psig	
NODE OFF		
NODE OFF		
ELEM OFF		
State: Balanced		
Corners: (FEET)		
UL: (-1711, 850)		
LL: (-1711, -1043)		
UR: (1316, 850)		
LR: (1316, -1043)		

